

Missouri Learning Standards for 4-H Curriculum



Extension
University of Missouri



This alignment project was coordinated by Dr. Cathy Galland, County Engagement Specialist in 4-H Youth Development. She has a Bachelor of Science in English from Simpson College in Indianola, Iowa, a master's in education from Central Methodist in Fayette, Mo and an Ed.D. in Educational Leadership and Policy Analysis from University of Missouri, Columbia.

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Joyce Evans, 4-H Youth Program Associate in Jefferson County, Missouri assisted with the alignment project. Joyce has a Bachelor of Science in Education from Southwest Missouri State and Two Master of Arts in Teaching degrees from Webster University. Joyce taught for 25 years and retired from Parkway School District in St Louis County.

Curriculum chosen for this project was based on a list of frequently used curriculum by after-school programs. The list was developed from the results of two research projects. One project was conducted by Beth Rasa Edwards (2019), who was previously a Field Specialist in 4-H Youth Development and is currently Enrichment Connections Coordinator for Missouri AfterSchool Network (MASN). The research was background information for a marketing flyer.

The second research project was conducted by Dr. Krista Tate, County Engagement Specialist in 4-H Youth Development and Janice Weddle, County Engagement Specialist in 4-H Youth Development. Their 2020 research contributed to a poster presentation at the National Association of Extension 4-H Youth Development Professionals Conference.

The curriculum team will continue to work towards alignment of curriculum for all Missouri 4-H projects.

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Missouri 4-H Curriculum Foundations

4-H Thriving Model

In Missouri 4-H, we envision a world in which youth and adults learn, grow, and work together for positive change. Our mission is to engage youth as valued, contributing members of their communities in partnership with caring adults. Our work is guided by the 4-H Thriving Model of Positive Youth Development, built upon the most current research. Through 4-H, youth explore their greatest interests, in settings where they know they belong, and with the support of developmental youth-adult relationships. Research suggests that greater levels of involvement in these quality 4-H programs help youth orient towards bright, successful futures!

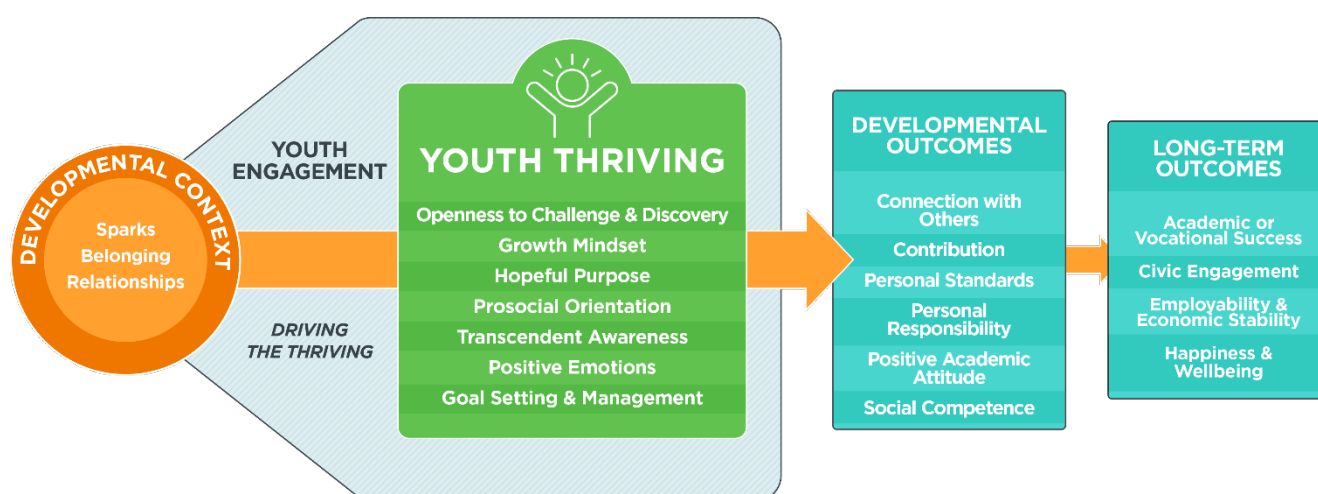
Emerging research that suggests thriving is central to a young person's long-term success, and 4-H offers unparalleled opportunities to achieve this. Through 4-H, youth explore their greatest interests, in settings where they know they belong, and with the support of developmental youth-adult relationships. Research suggests that greater levels of involvement in these quality 4-H programs help youth orient towards bright, successful futures!

4-H programs done well help youth thrive by...

Sparks: Providing opportunities for youth to explore their interests and passions—their spark!

Belonging: Creating environments where unique ideas and abilities of every young person are valued.

Developmental Relationships: 4-H relationships are about trust, mutual warmth, and respect. Youth and adults work together, and everyone grows from the experience.

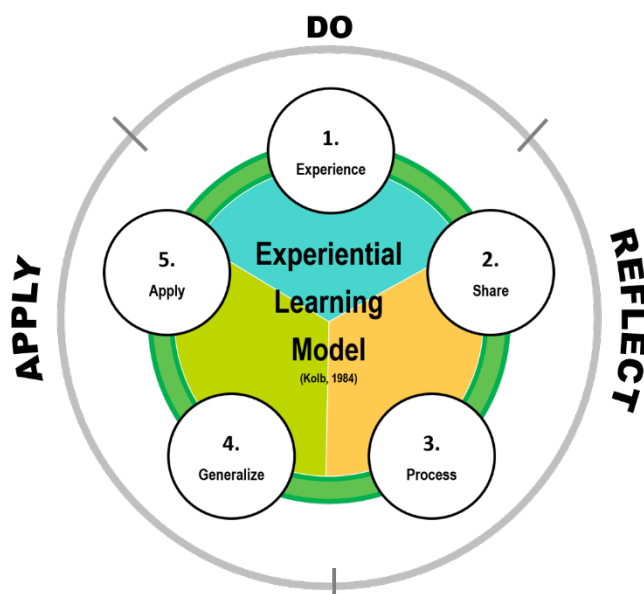


Experiential Learning

Experiential Learning helps us get the most out of an activity. Reflecting the 4-H motto, “Learn by Doing,” it works by actively engaging the learner in the process of understanding what is learned.

It’s not enough to convey information. Experiential learning guides the learner to understand what is being taught, see its relevance, and to apply this new knowledge to their life.

Accomplishing this takes five steps.



1. **EXPERIENCE:** Note the model begins with ACTION, not long-winded instruction. Keep directions to a minimum. When the learner is encouraged to learn by doing, rather than being told or shown how, a wide variety of life skills can be practiced.

The facilitator’s challenge is to “sit on their hands” as much as possible during this step. Many times, you will hear “We figured this out all by ourselves!”

2. **SHARE:** Sharing is simply asking things like, “What did you do?” “What happened?” “What did you see?” “What did it feel like?” and “Was this fun?” It’s not the time for analysis. That comes next, so this part is short.
3. **PROCESS:** The questions and discussion now become more focused on analyzing the experience. What did you observe? Did you develop any strategies? What are some other approaches you could have tried? Explore common themes that emerge from this part of the discussion. Guide the conversation towards the key teaching points. Questions about teamwork, communication skills are often appropriate here.
4. **GENERALIZE:** In this step the learner starts to relate the new knowledge to their lives. When else might you find yourself in a similar situation? Does this ever happen in other parts of your life? Where do you notice this?

The point is to realize this activity is not the first time they have had this experience, and that what they just experienced has relevance to their lives.

5. **APPLY:** This is the key to everything, as the discussion turns to how the learner will use this knowledge next time.

How can you use this at school? The next time you’re in that kind of situation at work, what will you do differently? What new things will you consider the next time you have to make this kind of decision?

Open-ended questions are key, as the learner’s own insights create understanding that what was just learned was useful and how it was useful.

Engineering and Technology

Missouri 4-H Projects

We are working hard to get all the project curriculums aligned to Missouri State Learning Standards. This document will be updated frequently. Here's what is available so far:

Projects with MLS aligned in this manual:

- Aerospace (levels 1--4)
- Computers and Programming
 - Scratch Programming
- Electricity (levels 1--4)
- Energy: Power of the Wind
- Robotics
 - Junk Drawer Robotics (levels 1--3)
 - Robotics with EV3 (levels 1--2)
- Small Engines (levels 1--3)
- Woodworking (levels 1--4)

Projects with MSL alignment coming soon:

- Geospatial (levels 1--3)



Aerospace (Level 1)

Aerospace: Pre-Flight (Level 1)

Source: 4H.MISSOURI.EDU; [Aerospace Project](#)

Activity	Description	Fine Arts	Science	Guidance & Counseling
5...4...3...2...1...	Youth will identify rocket parts and build a model rocket.		Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem. 1.ETS1.B.a	
Wonderful Wings	Youth will create a picture book to compare birds and airplanes.	Explore uses of materials and tools to create works of art or design. 1.VA:Cr2A	Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem. 1.ETS1.B.a	
What Do You Do?	Youth will explore aerospace careers by matching activities and workplaces.			Identify and compare roles and responsibilities of workers within the community. 2.CD8.A.a
Space Buggy	Youth will design a space buggy using available materials.		Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem. 1.ETS1.B.a	



Aerospace (Level 2)

Aerospace: Lift-Off (Level 2)Source: 4H.MISSOURI.EDU; [Aerospace Project](#)

Activity	Description	Social Studies	Science	Guidance & Counseling
Rockets Away!	Youth will make a drinking straw rocket and experiment with design elements to increase performance.		<p>Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.</p> <p>2.ETS1.B.1</p> <p>Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs.</p> <p>2.ETS1.C.1</p>	
Gnome of Your Own	Youth will follow directions and build a Gnome rocket from a kit.		<p>Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.</p> <p>2.ETS1.B.1</p>	
I Want to Be ...	Youth will select a career and interview a person who is in that career.			<p>Identify the skills needed by workers in the community.</p> <p>2.CD8.B.a</p>

Activity	Description	Social Studies	Science	Guidance & Counseling
Airfoil Magic	Youth will Make a model of a wing to learn about airfoil.		Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem. 2.ETS1.B.1	
From Here to There	Youth will make a map and describe how to travel from one place to another.	Read and construct maps with title and key. 2.EG.5.A.a		
Follow That Shadow	Youth will identify different types of aircraft.			
Can I Fly Today?	Youth will interview a pilot and determine if it is safe to fly based on weather conditions.		Represent data in tables and graphical displays to describe typical weather conditions expected during a particular season. 3.ESS2.D.1	Practice the steps of problem solving and decision making for personal safety. 2.PS3.A.a
Which Way Is Up?	Youth will perform a task using a mirror in order to discover the effects of disorientation.			Identify the skills needed by workers in the community. 2.CD8.B.a
Angle of Attack?	Youth will build a kite and fly it while experimenting with different angles.		Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem. 2.ETS1.B.1	

Activity	Description	Social Studies	Science	Guidance & Counseling
Up, Up and Away	Youth will make a hot-air balloon model and identify its parts.		<p>Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.</p> <p>2.ETS1.B.1</p>	
Round and Round	Youth will make a paper helicopter and fly it trying different weights on the tail.		<p>Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.</p> <p>2.ETS1.B.1</p> <p>Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs.</p> <p>2.ETS1.C.1</p>	
Charlie, Oscar, Delta, Echo	Youth will learn to use the International Phonetic Alphabet to decode messages.			<p>Identify the skills needed by workers in the community.</p> <p>2.CD8.B.a</p>
From Nose to Tail	Youth will identify and teach the functions of parts of an airplane.			



Aerospace (Level 3)

Aerospace: Reaching New Heights (Level 3)Source: 4H.MISSOURI.EDU; [Aerospace Project](#)

Activity	Description	English Language Arts	Science	Guidance & Counseling
Rippin' Rockets	Youth will build a balloon rocket and experiment to control direction of flight.		<p>Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved.</p> <p>3.ETS1.C.1</p>	
Fly 'n Show	Youth will prepare and give a speech about a model rocket.	<p>Speak clearly, audibly, and to the point using conventions of language when presenting individually or with a group by presenting information with clear ideas and details while speaking clearly at an understandable pace.</p> <p>3.SL.4.A.b</p>		
Let's Go Launching	Youth will review the NAR rules for launching a Gnome rocket and will prepare and launch the Gnome rocket safely.			<p>Apply effective problem-solving, decision-making, and refusal skills to make safe and healthy choices in various life situations.</p> <p>4.PS3.A.a</p>

Activity	Description	English Language Arts	Science	Guidance & Counseling
Attitudes, Altitudes and Airspeed	Youth will make a flight simulator control panel and label all parts.			Explain what workers do and need to know in various careers. 3.CD8.A.a
Rudder Away	Youth will build a front rudder straw glider and experiment with wing designs.		Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved. 3.ETS1.C.1	
Flying My Way	Youth will build a controllable glider and demonstrate its flight capabilities.		Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved. 3.ETS1.C.1	
Star Gazing	Youth will make a star gazer as an introduction to astronomy.			
Powerful Payload	Youth will build a balloon shuttle and demonstrate it to others.		Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved. 3.ETS1.C.1	

Activity	Description	English Language Arts	Science	Guidance & Counseling
Flying Fighters	Youth will build a Nagasaki Hata Fighter Kite and organize a kite flying contest.		Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved. 3.ETS1.C.1	
Mustangs to Zeros	Youth will Identify the parts of a remote-control airplane.			
Copters and Robbers	Youth will match helicopter parts with their functions.			Explain what workers do and need to know in various careers. 3.CD8.A.a
Just Blowing Through	Youth will make a hang glider and conduct an air current experiment.		Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved. 3.ETS1.C.1	



Aerospace (Level 4)

Aerospace: Pilot in Command (Level 4)Source: 4H.MISSOURI.EDU; [Aerospace Project](#)

Activity	Description	Math	Science	Guidance & Counseling	Health
The Versatile Viking	Youth will build a Viking rocket with a control rocket and others with different designs for experimentation.		Plan and carry out fair tests in which variables are controlled and failure points re considered to identify aspects of a model or prototype that can be improved. 5.ETS1.C.1		
Altitude Advisors	Youth will construct and use an altitude tracker.	Convert measurements of capacity, length and weight within a given measurement system. 5.GM.D.8			
Future Pilot	Youth will research pilot certification requirements.			Compare interests and strengths with those of workers in the global community. 5.CD7.A.a	

Activity	Description	Math	Science	Guidance & Counseling	Health
Ace Instructor	Youth will plan and teach an aerospace lesson.			Demonstrate personal characteristics of a contributing member of the school community. 5.PS1.C.a	
Cross Country	Youth will plan the most fuel-efficient flight for a commercial aircraft.		Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time or cost. 5.ETS1.A.1		
Knowledgeable Navigators	Youth will evaluate and design navigation systems.		Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem. 5.ETS1.B.1		

Activity	Description	Math	Science	Guidance & Counseling	Health
Astronaut Aerobics	Youth will discover how astronauts stay fit while living in space and explore the importance of staying fit.				Show the effects of lifestyle choices on the cardio-respiratory system and relate how the cardio-respiratory system affects quality of life. 4.FS.1.E
Brouhaha Box Kite	Youth will plan and build a flat-stye box kite	Solve multi-step problems that require measurement conversions. 5.GM.D.9			
Care in the Air	Youth will design and propose a new Emergency Medical Service (EMS) helicopter service.		Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time or cost. 5.ETS1.A.1		
Elevator Magic	Youth will apply knowledge of gravity to everyday experiences.		Plan and carry out fair tests in which variables are controlled and failure points considered to identify aspects of a model or prototype that can be improved. 5.ETS1.C.1		

Activity	Description	Math	Science	Guidance & Counseling	Health
Circle of Power	Youth will develop a strategy for issue involvement.			<p>Recognize the different roles and responsibilities people play in the family, school, and community, and how those roles and responsibilities are interrelated.</p> <p>8.PS1.C.a</p>	
My Personal Qualities	Youth will complete a career profile.			<p>Use current interests, strengths, and limitations to guide individual career exploration.</p> <p>6.CD7.A.a</p>	



Energy

Energy: Power of the Wind

 Source: [Missouri 4-H Website](http://Missouri4H.org)

Activity	Description	English Language Arts	Guidance and Counseling	Science
How Can We Think Like an Engineer?	Youth will use the engineering design process to solve problems.		Identify the skills needed by workers in the community. 2.CD8.B.a.	Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem. 4.ETS1.B.1
Think Like an Engineer: How Can We Design a Wind Powered Boat?	Youth will use the engineer design process to build a sailboat.		Identify the skills needed by workers in the community. 2.CD8.B.a.	Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved. 3.ETS1.C.1
Think Like an Engineer: Learn More About Engineering Design	Youth will analyze the engineering design process used to build their sailboats.		Identify the skills needed by workers in the community. 2.CD8.B.a.	Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem. 4.ETS1.B.1
Study the Wind: How Do We Observe and Measure the Wind (Part 1)	Youth will learn about and use the Beaufort scale to measure the wind.	Read, infer, and draw conclusions to follow written multi-step directions. 2.R.3.A.e		
Study the Wind: How Do We Observe and Measure the Wind (Part 2)	Youth will use their Beaufort scale to observe and measure wind speeds.	Develop an understanding of vocabulary by using conversational, general academic, and domain-specific words and phrases. 3.R.1.B.i.		Represent data in tables and graphical displays to describe typical weather conditions expected during a particular season. 3.ESS2.D.1.
How We Use the Wind: How Does a Pinwheel Use Wind Power?	Youth will build and analyze a pinwheel.			Provide evidence to construct an explanation of an energy transformation. 4.PS3.B.1.

Activity	Description	English Language Arts	Guidance and Counseling	Science
How We Use the Wind: How Can We Design a Better Pinwheel?	Youth will use the engineer design process to build a better pinwheel.	Read, infer, and draw conclusions to follow written multi-step directions. 2.R.3.A.e		Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved. 3.ETS1.C.1
How We Use the Wind: How Can We Use Wind to Lift a Load?	Youth will use the engineering design process to design and build a wind turbine to lift a load.	Develop an understanding of vocabulary by using conversational, general academic, and domain-specific words and phrases. 3.R.1.B.i.		Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved. 3.ETS1.C.1
How We Use the Wind: Which Turbine Design is Better for the Job?	Youth will compare high solidity and low solidity turbine designs.	Develop an understanding of vocabulary by using conversational, general academic, and domain-specific words and phrases. 3.R.1.B.i.		Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem. 4.ETS1.B.1
How We Use the Wind: How Can We Use Wind Power to Produce Electricity?	Youth will design and build a wind turbine that uses wind power to create electricity.	Develop an understanding of vocabulary by using conversational, general academic, and domain-specific words and phrases. 3.R.1.B.i.		Apply scientific ideas to design, test, and refine a device that converts energy from one form to another. 4.PS3.B.1
How We Use the Wind: How do Motors and Generators Work?	Youth will explain how a motor and a generator are related.	Develop an understanding of vocabulary by using conversational, general academic, and domain-specific words and phrases. 3.R.1.B.i.		Apply scientific ideas to design, test, and refine a device that converts energy from one form to another. 4.PS3.B.1
Geography and Community: Where and Why Does the Wind Blow?	Youth will research the potential wind energy for a geographic area.	Apply research process to locate information in reference texts, electronic resources, interviews, or visual sources and literary and informational texts. 3.W.3.A.d.		

Activity	Description	English Language Arts	Guidance and Counseling	Science
Geography and Community: Where Are the Wind Turbines?	Youth will research the use of wind turbines in the United States and their own community.	Apply research process to locate information in reference texts, electronic resources, interviews, or visual sources and literary and informational texts. 3.W.3.A.d.		Obtain and combine information about ways individual communities use science ideas to protect the Earth's resources and environment. 5.ESS3.C.1.
Geography and Community: What Are Some Facts About Wind Farms?	Youth will research a wind farm in their state or a nearby state.	Apply research process to locate information in reference texts, electronic resources, interviews, or visual sources and literary and informational texts. 3.W.3.A.d.	Explain what workers do and need to know in various careers. 3.CD8.A.a.	Obtain and combine information about ways individual communities use science ideas to protect the Earth's resources and environment. 5.ESS3.C.1.
Geography and Community: How Do Schools Use Wind Power?	Youth will research and compare school districts that have installed wind turbines.	Apply research process to take simple notes in own words and sort evidence into provided categories or organizer. 3.W.3.A.f.		Obtain and combine information about ways individual communities use science ideas to protect the Earth's resources and environment. 5.ESS3.C.1.
Creativity and Design: How Does the Wind Move Through Art and Literature?	Youth will explore how wind moves through art and literature.	Develop an understanding of vocabulary by using conversational, general academic, and domain-specific words and phrases. 3.R.1.B.i.		
Creativity and Design: What Innovative Design Can You Create?	Youth will build a wind powered machine, vehicle, or sculpture using the design process.	Speak clearly, audibly, and to the point, using conventions of language when presenting individually or with a group by presenting information with clear ideas and details while speaking clearly at an understandable pace. 3.SL.4.A.b.	Explain what workers do and need to know in various careers. 3.CD8.A.a.	Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost. 4.ETS1.A.1.



Electricity Level 1

Electricity: Magic of Electricity (Level 1)Source: [Missouri 4-H Website](#)

Activity	Description	English Language Arts	Science
Plugging In	Youth will identify how we use electricity.	Apply research process to organize information found during group or individual research, using graphic organizers or other aids. 1.W.3.A.d.	
Getting It Together	Youth will collect materials necessary to conduct electricity activities.	Apply research process to organize information found during group or individual research, using graphic organizers or other aids. 1.W.3.A.d.	
Bright Lights	Youth will build a flashlight.		Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool. 1.ETS1.A.1.
Control the Flow	Youth will build and test a switch.	Read, infer, and draw conclusions to follow written multi-step directions. 2.R.3.A.e	Apply scientific ideas to design, test, and refine a device that converts energy from one form to another. 4.PS3.B.1
Conducting Things	Youth will identify conductors of electricity.	Apply research process to organize information found during group or individual research, using graphic organizers or other aids. 1.W.3.A.d.	Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem. 4.ETS1.B.1
Circuit Sense	Youth will identify closed and open circuits.		Provide evidence to construct an explanation of an energy transformation. 4.PS3.B.1

Is There a Fork in the Road?	Youth will discover parallel and series circuits.	Apply research process to organize information found during group or individual research, using graphic organizers or other aids. 1.W.3.A.d.	Provide evidence to construct an explanation of an energy transformation. 4.PS3.B.1
May the Force Be with You	Youth will test and classify materials that are attracted to a magnet.	Apply research process to organize information found during group or individual research, using graphic organizers or other aids. 1.W.3.A.d.	Plan and conduct investigations to determine the cause and effect relationship of electric or magnetic interactions between two objects not in contact with each other. 3.PS2.B.1
A Passing Force	Youth will test materials for magnetism and record findings.	Apply research process to organize information found during group or individual research, using graphic organizers or other aids. 1.W.3.A.d.	Plan and conduct investigations to determine the cause and effect relationship of electric or magnetic interactions between two objects not in contact with each other. 3.PS2.B.1
Attract or Repel?	Youth will determine the north and south poles of magnets.	Read, infer, and draw conclusions to follow written multi-step directions. 2.R.3.A.e	Plan and conduct investigations to determine the cause and effect relationship of electric or magnetic interactions between two objects not in contact with each other. 3.PS2.B.1
Earth Attractions	Youth will build and test a compass.		Plan and conduct investigations to determine the cause and effect relationship of electric or magnetic interactions between two objects not in contact with each other. 3.PS2.B.1
Electric Attractions	Youth will build an electromagnet.	Read, infer, and draw conclusions to follow written multi-step directions. 2.R.3.A.e	Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem. 4.ETS1.B.1
Sense the Current	Youth will build a galvanometer.	Read, infer, and draw conclusions to follow written multi-step directions. 2.R.3.A.e	Provide evidence to construct an explanation of an energy transformation. 4.PS3.B.1
Make it Spin	Youth will build an electric motor.	Read, infer, and draw conclusions to follow written multi-step directions. 2.R.3.A.e	Provide evidence to construct an explanation of an energy transformation. 4.PS3.B.1



Electricity Level 2

Electricity: Investigating Electricity (Level 2)Source: [Missouri 4-H Website](#)

Activity	Description	English Language Arts	Science
Get it Together	Youth will gather materials for Investigating Electricity activities.	Read, infer, and draw conclusions to use text features to locate specific information. 2.R.3.A.c	
Going Back and Forth	Youth will learn about alternating and direct current.	Read, infer, and draw conclusions to follow written multi-step directions. 2.R.3.A.e	Apply scientific ideas to design, test, and refine a device that converts energy from one form to another. 4.PS3.B.1
The Electric Detective's Most Important Tool	Youth will use a Volt-Ohm meter to measure what is going on in a circuit.	Read, infer, and draw conclusions to follow written multi-step directions. 2.R.3.A.e	Apply scientific ideas to design, test, and refine a device that converts energy from one form to another. 4.PS3.B.2
Investigating Ohm's Law	Youth will investigate Ohm's Law using a squirt bottle.	Read, infer, and draw conclusions to follow written multi-step directions. 2.R.3.A.e	Provide evidence to construct an explanation of an energy transformation. 4.PS3.B.1
To Flow or Not to Flow	Youth will use a Volt-Ohm meter to decide if something is a conductor or insulator.	Apply research process to locate information in reference texts, electronic resources, interviews, or visual sources and literary and informational texts. 3.W.3.A.d	Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem. 4.ETS1.B.1
Decoding Circuit Diagrams	Youth will learn to read circuit diagrams.		Provide evidence to construct an explanation of an energy transformation. 4.PS3.B.1

Activity	Description	English Language Arts	Science
Case of the Series Circuit	Youth will build a circuit and measure voltages.	Read, infer, and draw conclusions to follow written multi-step directions. 2.R.3.A.e	Provide evidence to construct an explanation of an energy transformation. 4.PS3.B.1
Case of the Parallel Circuit	Youth will build a parallel circuit and take measurements with a Volt Ohm meter.	Read, infer, and draw conclusions to follow written multi-step directions. 2.R.3.A.e	Provide evidence to construct an explanation of an energy transformation. 4.PS3.B.1
Circuit Sense	Youth will build circuits and test voltages.		Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem. 4.ETS1.B.1
The Off and On Case	Youth will build a momentary switch and use it to communicate in Morse code.	Read, infer, and draw conclusions to follow written multi-step directions. 2.R.3.A.e	Apply scientific ideas to design, test, and refine a device that converts energy from one form to another. 4.PS3.B.1
The Case of the Switching Circuit	Youth will build a three-way switch.		Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem. 4.ETS1.B.1
Stronger Connections	Youth will solder connections and compare twisted wire connections.	Read, infer, and draw conclusions to follow written multi-step directions. 2.R.3.A.e	Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem. 4.ETS1.B.1
Stop the Crime	Youth will build a burglar alarm.	Read, infer, and draw conclusions to follow written multi-step directions. 2.R.3.A.e	Apply scientific ideas to design, test, and refine a device that converts energy from one form to another. 4.PS3.B.1



Computers & Programming

Scratch Programming (Facilitators Guide)

Source: 4H.MISSOURI.EDU; [Computers & Programming Projects](#)

Activity	Description	Computer Science	English Language Arts	Math
Sequence: Unplugged Activity for Sequence	Youth will give and follow directions to illustrate the importance of sequence.		Develop and apply effective listening skills and strategies in formal and informal settings by following and restating multi-step instructions that involve a short related sequence of actions, according to classroom expectations. 4.SL.1.A.c	
Sequence: Calendar Activity	Youth will make a sprite travel and trace the path, use event blocks to start and create a script and use x and y coordinates.	With guidance, create programs using a programming language, robot device or unplugged activity that utilize sequencing and simple looping to solve a problem or express ideas both independently and collaboratively. 2.AP.C.01		Plot and interpret points in the first quadrant of the Cartesian coordinate plane. 5.GM.C.7
Iteration: Unplugged Activity for Iteration	Youth will do a repeat drawing activity to realize the importance of iteration.	With guidance, create programs using a programming language, robot device or unplugged activity that utilize sequencing and simple looping to solve a problem or express ideas both independently and collaboratively. 2.AP.C.01		

Activity	Description	Computer Science	English Language Arts	Math
Iteration: Box It In	Youth will use the repeat block to trace a circle around a location on the stage and fit blocks inside a repeat block.	With guidance, create programs using a programming language, robot device or unplugged activity that utilize sequencing and simple looping to solve a problem or express ideas both independently and collaboratively. 2.AP.C.01	Read, infer and draw conclusions to interpret details from procedural text to complete a task, solve a problem or perform an action. 5.R.3.A.b	
Iteration: Calendar Cross Out	Youth will combine blocks in a sequence to recreate a picture, use iteration and a negative number to move a block.	Collaboratively create a program using control structures to make decisions within a program. 3.AP.C.01	i Read, infer and draw conclusions to interpret details from procedural text to complete a task, solve a problem or perform an action. 5.R.3.A.b	Use positive and negative numbers to represent quantities. 6.NS.C.5
Iteration: Bugs, Glitches, and Problems in Scripts	Youth will recreate, debug and search for errors in a script.	Analyze, create and debug a program that includes sequencing, repetition, conditionals and variables in programming language. 4.AP.PD.03	Read, infer and draw conclusions to interpret details from procedural text to complete a task, solve a problem or perform an action. 5.R.3.A.b	
Iteration: Ballerina	Youth will work with sprites to change costumes, dance, glide, repeat, appear/disappear and make active.	Collaboratively create a program using control structures to make decisions within a program. 3.AP.C.01	Read, infer and draw conclusions to interpret details from procedural text to complete a task, solve a problem or perform an action. 5.R.3.A.b	
Iteration: Cat Aerobics	Youth will use drawing tools to create a new sprite, a staircase, reset a script and change the size of a sprite.	Collaboratively create a program using control structures to make decisions within a program. 3.AP.C.01	Read, infer and draw conclusions to interpret details from procedural text to complete a task, solve a problem or perform an action. 5.R.3.A.b	

Activity	Description	Computer Science	English Language Arts	Math
Conditionals: Unplugged Activity for Conditionals	Youth will understand how conditionals work.			
Conditionals: The Beetle	Youth will control a sprite, change its costume, use a forever block and create a condition.	Create a program using control structures to solve a problem or express ideas both independently and collaboratively. 4.AP.C.01	Read, infer and draw conclusions to interpret details from procedural text to complete a task, solve a problem or perform an action. 5.R.3.A.b	
Conditionals: Unplugged Activity for Broadcast Messages	Youth will understand how broadcast messages work.			
Conditionals: Birthday cake Game	Youth will create a game using conditionals.	Create a program using control structures to solve a problem or express ideas both independently and collaboratively. 4.AP.C.01	Youth will interpret details from procedural text to complete a task, solve a problem or perform an action. 5.R.3.A.b	
Conditionals: Getting User Input		Create a program using control structures to solve a problem or express ideas both independently and collaboratively. 4.AP.C.01	Youth will interpret details from procedural text to complete a task, solve a problem or perform an action. 5.R.3.A.b	
Variables: Unplugged Activity for Variables	Youth will understand variables.	Model the way a computer program manipulates grade level appropriate data. 2.AP.V.01		

Activity	Description	Computer Science	English Language Arts	Math
Variables: How Much Money?	Youth will create and use variables.	Create programs that use variables to store and modify grade level appropriate data. 4.AP.V.01	Youth will interpret details from procedural text to complete a task, solve a problem or perform an action. 5.R.3.A.b	
Variables: Regular Polygons	Youth will recreate and compare scripts.	Compare and simplify multiple algorithms for accomplishing the same task verbally and kinesthetically, with robot devices or a programming language. 4.AP.A.01	Youth will interpret details from procedural text to complete a task, solve a problem or perform an action. 5.R.3.A.b	
Variables: Create Any Regular Polygon	Youth will identify, create and perform operations with variables and change a script to a generalized script.	Create programs that use variables to store and modify grade level appropriate data. 4.AP.V.01	Youth will interpret details from procedural text to complete a task, solve a problem or perform an action. 5.R.3.A.b	
Variables: Spiral Polygons	Youth will remix, make decisions and learn about giving credit.	Observe intellectual property rights and give appropriate credit when creating or remixing programs. 5.AP.PD.02	Youth will interpret details from procedural text to complete a task, solve a problem or perform an action. 5.R.3.A.b	
Modularization: Unplugged Activity for Modularization	Youth will understand modularization.	Decompose the steps needed to solve a problem into precise sequence of instructions. 3.AP.M.01		

Activity	Description	Computer Science	English Language Arts	Math
Modularization: Blocks and More Blocks	Youth will create and define a block to replace lines of script.	With grade appropriate complexity, modify, remix or incorporate portions of an existing program into one's own work, to develop something new or add more advanced features. 4.AP.M.02	Youth will interpret details from procedural text to complete a task, solve a problem or perform an action. 5.R.3.A.b	
Modularization: Spider Web	Youth will use modularization to define triangle hexagon, and spider web.	With grade appropriate complexity, modify, remix or incorporate portions of an existing program into one's own work, to develop something new or add more advanced features. 4.AP.M.02	Youth will interpret details from procedural text to complete a task, solve a problem or perform an action. 5.R.3.A.b	
Remix: Remix a Game	Youth will remix a game to add challenges and create a variable for score and for a timer.	With grade appropriate complexity, modify, remix or incorporate portions of an existing program into one's own work, to develop something new or add more advanced features. 4.AP.M.02	Youth will interpret details from procedural text to complete a task, solve a problem or perform an action. 5.R.3.A.b	



Junk Drawer Robotics (Level 1)

Junk Drawer Robotics: Give Robots a Hand (Level 1)

Source: 4H.MISSOURI.EDU; [Robotics Project](#)

Activity	Description	English Language Arts	Math	Science
Think Like a Scientist	Youth will learn the importance of identification as they make observations and sort materials based on selected attributes. Youth will record data into charts and graphs.		Create frequency tables, scaled picture graphs and bar graph to represent a data set with several categories. 3.DS.A.1.	
Communicate like an engineer	Youth will describe an object by drawing and writing a description of it.	Write informative/explanatory texts that: Introduce a topic or text being studied. 3.W.2.B.a. Develop the topic with simple facts, definitions, details, and explanations. 3.W.2.B.b.		Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem. 2.ETS1.B.1.
Build like a Technician	Youth will use the engineer design process to complete a building challenge that involves using manufacturing processes and design shapes.			Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem. 3.ETS1.B.1
Marshmallow Catapult Design Team	Youth will plan and design a swinging arm trebuchet- style catapult to launch marshmallows.			Evaluate competing design solutions using a systematic process to determine how well they meet the criteria and constraints of the problem. 6-8.ETS1.B.1

Activity	Description	English Language Arts	Math	Science
Marshmallow Catapult Build Team.	Youth will assemble parts, use simple tools, make modifications, and record information in the Robotics Notebook as youth build the catapult.	Write informative/explanatory texts that: Introduce a topic or text being studied. 3.W.2.B.a. Develop the topic with simple facts, definitions, details, and explanations. 3.W.2.B.b.		Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem. 3.ETS1.B.1
Sense of Balance space.	Youth will experiment in balancing unequal weights on a balance beam while also moving the pivot point to different locations on the beam.		Use multiplication and division within 100 to solve problems. 3.RA.A.4.	Plan and conduct an investigation to provide evidence of the effects of balanced and unbalanced forces on the motion of an object. 4.PS2.A.2
ABC ... XYZ	Youth will understand the three axes of a cube, X Y Z, and locations in a 3-D.		Draw and identify points, lines, line segments, rays, angles, perpendicular lines and parallel lines. 4.GM.A.1.	
Arm in Arm Design Team	Youth will design and draw a robot arm that they will build using levers to pick up and move a weight from one spot to another. The arm should have at least two of the three axes of movement, X, Y, Z.			Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved. 5.ETS1.C.1.
Arm in Arm Build Team	Youth will build a robot arm from their design in activity H.			Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved. 5.ETS1.C.1.
Pumped Up	Youth will explore the moving of objects with balloons, plastic bottles and syringes.			Use models to explain that simple machines change the amount of effort force and/or direction of force. 4.PS3.C.1

Activity	Description	English Language Arts	Math	Science
Just Add Air Design Team	Youth will design a power source to move the arm they built in Activity I.			Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost. 5.ETS1.A.1
Just Add Air Build Team	Youth will use the plans from Activity K and add power source to move the arm built in Activity I.			Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost. 5.ETS1.A.1
Chopsticks	Youth will learn about joints and linkage by exploring with chopsticks.			Use models to explain that simple machines change the amount of effort force and/or direction of force. 4.PS3.C.1
Just in a Pinch	<p>Youth will learn about joints and linkage by exploring various types of end effectors (grippers, tools, etc.)</p> <p>These devices may lift, hold, cut or squeeze other objects.</p> <p>They will vary in design depending on the type of object and the task being done.</p>			<p>Use models to explain that simple machines change the amount of effort force and/or direction of force. 4.PS3.C.1</p> <p>Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost. 5.ETS1.A.1</p>
Hold On	<p>Youth will learn about joints and linkage by exploring with chopsticks, piers and tongs.</p> <p>Youth will select a gripper best suited to lift their object.</p>			<p>Use models to explain that simple machines change the amount of effort force and/or direction of force. 4.PS3.C.1</p> <p>Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost. 5.ETS1.A.1</p>

Activity	Description	English Language Arts	Math	Science
One for the Gripper Design Team	Youth will build a robot arm from their design in H.			Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost. 5.ETS1.A.1
One for the Gripper	Youth will build a gripper using the design from P and various parts and supplies.			Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost. 5.ETS1.A.1
Twist the Wrist Design Team	Youth will combine the work of their robot arm, and gripper into one robot! Activities R and S require the completion of Activities I, L, Q.			Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost. 5.ETS1.A.1
Twisty of the Wrist Build Team	Youth will fasten the gripper to the robot arm and try it out by grabbing an item and moving it with the air-powered arm.			Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost. 5.ETS1.A.1

Missouri 4-H

**Missouri Learning Standards
Alignment Guide for 4-H**



Extension
University of Missouri



Junk Drawer Robotics (Level 2)

Junk Drawer Robotics: Robotics on the Move (Level 2)

Source: 4H.MISSOURI.EDU; [Robotics Project](#)

Activity	Description	Personal Finance	Math	Science
Slip N Slide	Youth will explore movement and friction by testing a small box on a number of surfaces, looking at static friction and sliding friction.			Evaluate competing design solutions using a systematic process to determine how well they meet the criteria and constraints of the problem. 6-8.ETS1.B.1
Rolling Along	Youth will test rolling friction by adding wheels or roller as a way to overcome the overall friction of an item.			Evaluate competing design solutions using a systematic process to determine how well they meet the criteria and constraints of the problem. 6-8.ETS1.B.1
Clipmobile Design Team	Youth will plan and design a vehicle to maximize its ability to coast, based on considering the effects of friction. Youth also will consider constraints of capacity, efficiency, complexity and costs in the design.	Evaluate the role of choice in decision making. PF.I.1.A. Apply a rational decision-making process to satisfy wants. PF.I.1.B.		Evaluate competing design solutions using a systematic process to determine how well they meet the criteria and constraints of the problem. 6-8.ETS1.B.1. Analyze data from tests to determine similarities and differences among several design solutions to identify the best characteristics of each that can be combined into a new solution to better meet the criteria for success. 6-8.ETS1.B.2
Clipmobile Build Team	Youth will build or assemble a complex Clipmobile, considering and addressing effects of friction and design constraints.	Evaluate the role of choice in decision making. PF.I.1.A. Apply a rational decision-making process to satisfy wants. PF.I.1.B.		Use evidence to construct an explanation relating the speed of an object to the energy of that object. 4.PS3.A.1

Light Up My Life	Youth will learn about a simple electrical circuit by using batteries, foil, and light bulbs.			Provide evidence to construct an explanation of an energy transformation. 4.PS3.B.1 Apply scientific ideas to design, test, and refine a device that converts energy from one form to another. 4.PS3.B.2
Magnetic North	Youth will learn about electromagnetic force in electrical circuits by using batteries, wire, and a compass.			Analyze diagrams and collect data to determine the factors that affect the strength of electric and magnetic forces. 6-8.PS2.B.1.
Can-Can Robot Design Team	Youth will plan and engineer a robot with a paper or plastic cup, felt markers, a motor, a battery, and wire, an eraser and tape.			Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost. 5.ETS1.A.1
Can-Can Robot Build Team	Youth will explore how parts can be assembled to build or make more complex things. The activity will encourage youth to explore and modify design using different types of parts to construct a machine.			Evaluate competing design solutions using a systematic process to determine how well they meet the criteria and constraints of the problem. 6-8.ETS1.B.1 Develop a model to generate data for iterative testing and modification of a proposed object, tool, or process such that an optimal design can be achieved. 6-8.ETS1.B.3
Gear We Go Again.	Youth will work with a multispeed bicycle to understand gear ratios.		Understand a ratio as a comparison of two quantities and represent these comparisons. 6.RP.A.1.	

Gears and More Gears	<p>Youth will assemble and test gear sets to determine the direction of rotation and gear rations.</p> <p>Youth also will explore compound gear rations.</p>			<p>Evaluate competing design solutions using a systematic process to determine how well they meet the criteria and constraints of the problem.</p> <p>6-8.ETS1.B.1</p> <p>Analyze data from tests to determine similarities and differences among several design solutions to identify the best characteristics of each that can be combined into a new solution to better meet the criteria for success.</p> <p>6-8.ETS1.B.2</p>
Gear Train Design Team	Youth will design a gear train that will have a gear ratio reduction.			<p>Develop a model to generate data for iterative testing and modification of a proposed object, tool, or process such that an optimal design can be achieved.</p> <p>6-8.ETS1.B.3</p>
Gear train Build Team	Youth will build a gear train using compound gears.			<p>Develop a model to generate data for iterative testing and modification of a proposed object, tool, or process such that an optimal design can be achieved.</p> <p>6-8.ETS1.B.3</p>
Es – Car – Go Design Team	Youth will plan and design a rover with a gear train to make it go really slow and climb a ramp.			<p>Develop a model to generate data for iterative testing and modification of a proposed object, tool, or process such that an optimal design can be achieved.</p> <p>6-8.ETS1.B.3</p>
Es – Car – Go Build Team	Youth will build a rover that can go as slow as an “Es-Car-Go” (snail) and is able to climb a ramp.			<p>Develop a model to generate data for iterative testing and modification of a proposed object, tool, or process such that an optimal design can be achieved.</p> <p>6-8.ETS1.B.3</p>

Pennies in a Boat	Youth will learn about weight distribution, surface area, and buoyancy by floating an aluminum foil boat on water and adding pennies as weights.		Apply the formulas $V = l \times w \times h$ and $V = B \times h$ for volume of right rectangular prisms with whole-number edge lengths. 5.GM.B.5	
Sink or Float	Youth will explore the concept of buoyancy, predicting what will float or sink. You will try to float something that normally sinks and sink something normally floats.			Plan and conduct an investigation to provide evidence of the effects of balanced and unbalanced forces on the motion of an object. 4.PS2.A.2
Sea Hunt Design Team	Youth will use knowledge of neutral buoyancy to design an underwater ROV that can be powered to go up and down in a tank of water.			Plan and conduct an investigation to provide evidence of the effects of balanced and unbalanced forces on the motion of an object. 4.PS2.A.2
Sea Hunt Build Team	Youth will be able to build an underwater ROV based on youth's design.			Develop a model to generate data for iterative testing and modification of a proposed object, tool, or process such that an optimal design can be achieved. 6-8.ETS1.B.3
To Make the Best Better Design and Build Team	Youth will redesign and rebuild the youths ROV design, making modifications as necessary based on feedback from testing.			Develop a model to generate data for iterative testing and modification of a proposed object, tool, or process such that an optimal design can be achieved. 6-8.ETS1.B.3



Junk Drawer Robotics (Level 3)

Junk Drawer Robotics: Mechatronics (Level 3)Source: 4H.MISSOURI.EDU; [Robotics Project](#)

Activity	Description	Math	Science
Series/Parallel	Youth will learn the difference between series and parallel & circuits		Provide evidence to construct an explanation of an energy transformation. 4.PS3.B.1 Analyze diagrams and collect data to determine the factors that affect the strength of electric and magnetic forces. 6-8.PS2.B.1
Off and On	Youth will create an on/off switch for a basic circuit.		Provide evidence to construct an explanation of an energy transformation. 4.PS3.B.1
Direction of Flow	Youth will experiment with circuits and control the direction of the electrical flow		Plan and conduct an investigation to provide evidence that an electric current can produce a magnetic field and that a changing magnetic field can produce an electric current. 9-12.PS2.B.2 Analyze diagrams and collect data to determine the factors that affect the strength of electric and magnetic forces. 6-8.PS2.B.1
Forward and Reverse Design Team	Youth will plan and design a double pole double throw (DPDT) switch to change the circuit's polarity.		
Forward and Reverse Build Team	Youth will use their Double Pole Double Throw (DPDT) design and build a working switch that you can attach to a simple circuit.		Apply scientific ideas to design, test, and refine a device that converts energy from one form to another. 4.PS3.B.2
Line Follower	Youth will follow a given line and learn how a visual sensor works on a robot.		
Keep in Touch	Youth will use the sense of touch to read Braille code.		

Activity	Description	Math	Science
Don't Buzz Me!	Youth will navigate two different size loops through a wire course to determine sensitivity and accuracy.		Apply scientific ideas to design, test, and refine a device that converts energy from one form to another. PS3.B.2
Wall Follower Design Team	Youth will plan and design a robot around the given wire diagram that will follow a wall.		Develop a model to generate data for iterative testing and modification of a proposed object, tool, or process such that an optimal design can be achieved. 6-8.ETS1.B.3
Wall Follower Build Team	Youth will build a robot that will travel around an object or wall using a sensor for control.		Apply scientific ideas to design, test, and refine a device that converts energy from one form to another. 4.PS3.B.2
It's About Time	Youth will learn about base 2 binary counting and timing as related to electronic circuits.	Analyze the data in a frequency table, line plot, bar graph or picture graph. 4.D.S.3.A.1.	
Logic: And, Or, Not!	Youth will learn about logical operators, including AND, OR, NOT!	Analyze the data in a frequency table, line plot, bar graph or picture graph. 4.D.S.3.A.1.	
Analog Versus Digital	Youth will apply logical circuits in three real-world settings.		Plan and conduct an investigation to provide evidence that an electric current can produce a magnetic field and that a changing magnetic field can produce an electric current. 9-12.PS2.B.2
Components	Youth will learn about electrical components, including batteries, wire conductors, resistors, and capacitors.		Evaluate competing design solutions using a systematic process to determine how well they meet the criteria and constraints of the problem. 6-8.ETS1.B.1
Breadboard Build	Youth will rebuild electronic circuits they've built in previous activities.		Evaluate competing design solutions using a systematic process to determine how well they meet the criteria and constraints of the problem. 6-8.ETS1.B.1
Cashier	Youth will illustrate the concepts of input, processes, and output through an activity simulation.		Develop and use a model of two objects interacting through electric or magnetic fields to illustrate the forces between objects and the changes in energy of the objects due to the interaction. 9-12.PS3.C.1

Activity	Description	Math	Science
Walk the Walk	Youth will follow the flowchart instructions to act out the role of processor in a simple computer program.	Generate a number pattern that follows a given rule. 4.RA.1.C.1.	
Say What? Design Team	Youth will plan and design a program using a flowchart format involving basic commands like loops, go- to, and if-then-else so it can be acted out on a grid.	Generate a number pattern that follows a given rule. 4.RA.1.C.1.	
Say What? Build Team	Youth will follow the program designed by another group and offer suggestions for improvement.		Evaluate competing design solutions using a systematic process to determine how well they meet the criteria and constraints of the problem. 6-8.ETS1.B.1
Build Your Robot Design Team	Youth will design a robot that can perform a specific task.		Develop a model to generate data for iterative testing and modification of a proposed object, tool, or process such that an optimal design can be achieved. 6-8.ETS1.B.3
Build Your Robot Build Team	Youth will take their robot design and build a working model.		Develop a model to generate data for iterative testing and modification of a proposed object, tool, or process such that an optimal design can be achieved. 6-8.ETS1.B.3



Robotics with EV3 (Level 1)

Robotics 1: with EV3Source: 4H.MISSOURI.EDU; [Robotics Project](#)

Activity	Description	Science
What is a Robot?	Youth will Identify machines as a robot or not a robot.	Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem. Developing Possible Solutions 5.ETS1.B.1.
What's What	Youth will identify and describe LEGO robotics parts.	Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem. Developing Possible Solutions 5.ETS1.B.1
If I Only Had a Brain.	Youth will install and using programming software.	Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem. Developing Possible Solutions 5.ETS1.B.1
Start With Something Simple.	Youth will design and build a robot.	Develop a model to generate data for iterative testing and modification of a proposed object, tool, or process such that an optimal design can be achieved. 6-8.ETS1.B.3
Let's Get a Move On	Youth will write a program that enables a robot to move forward.	Analyze data from tests to determine similarities and differences among several design solutions to identify the best characteristics of each that can be combined into a new solution to better meet the criteria for success. 6-8.ETS1.B.2
One Step at a time	Youth will write a program that enables a robot to follow a path.	Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem. Developing Possible Solutions 5.ETS1.B.1
Let's Be Sensible	Youth will identify hardware functions.	Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem. Developing Possible Solutions 5.ETS1.B.1
I've Got a Feeling	Youth will write a program that enables the robot to react to its surroundings.	Develop a model to generate data for iterative testing and modification of a proposed object, tool, or process such that an optimal design can be achieved. 6-8.ETS1.B.3
Do You See What I See?	Youth will program the color sensor.	Analyze data from tests to determine similarities and differences among several design solutions to identify the best characteristics of each that can be combined into a new solution to better meet the criteria for success. 6-8.ETS1.B.2

Activity	Description	Science
All the Pretty Colors	Youth will identify robot capabilities.	Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem. Developing Possible Solutions 5.ETS1.B.1
Two Sensors Are Better Than One	Youth will program the robot to multitask.	Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem. Developing Possible Solutions 5.ETS1.B.1
Small Tasks, Big Accomplishments	Youth will design programs to achieve specific goals.	Analyze data from tests to determine similarities and differences among several design solutions to identify the best characteristics of each that can be combined into a new solution to better meet the criteria for success. 6-8.ETS1.B.2



Robotics with EV3 (Level 2)

Robotics 2: EV3N more

Source: 4H.MISSOURI.EDU; [Robotics Project](#)

Activity	Description	Science
Get a Grip	Youth will build and program a robot to pick up and move objects.	Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem. Developing Possible Solutions 5.ETS1.B.1.
Data Driven Decisions	Youth will create a program to make sensor values control motor speed.	Develop a model to generate data for iterative testing and modification of a proposed object, tool, or process such that an optimal design can be achieved. 6-8.ETS1.B.3.
What Kind of World Do We Live In?	Youth will program a robot to display sensor data.	Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem. Developing Possible Solutions 5.ETS1.B.1.
We've Got Trouble	Youth will identify and correct problems in robot performance by displaying data values in real time.	Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem. Developing Possible Solutions 5.ETS1.B.1.
And More Trouble	Youth will program a robot to create, store, and retrieve a data variable.	Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem. Developing Possible Solutions 5.ETS1.B.1.
Math a Mania	Youth will program a robot to do computation using values from sensors.	Develop a model to generate data for iterative testing and modification of a proposed object, tool, or process such that an optimal design can be achieved. 6-8.ETS1.B.3.
That Seems Logical	Youth will program a robot to make a complex decision.	Develop a model to generate data for iterative testing and modification of a proposed object, tool, or process such that an optimal design can be achieved. 6-8.ETS1.B.3.



Small Engines (Level 1)

Small Engines: Crank It Up! (Level 1)

Source: 4H.MISSOURI.EDU; [Small Engines Project](#)

Activity	Description	English Language Arts	Guidance & Counseling	Health	Science
How Engines Work: Parts Are Parts	Youth will identify external parts of a lawnmower.	Apply research process to record basic information from literary and informational texts in simple visual format. 2.W.3.A.e			
How Engines Work: Crank It Up!	Youth will start a small engine safely.			Identify potential hazards in and around the home. 1.RA.2.A.c	
How Engines Work: Time for Tools	Youth will identify tools used to maintain and repair small engines	Apply research process to record basic information from literary and informational texts in simple visual format. 2.W.3.A.e			

Activity	Description	English Language Arts	Guidance & Counseling	Health	Science
How Engines Work: Parts, Parts, Everywhere Parts!	Youth will identify the parts of an engine.	Apply research process to record basic information from literary and informational texts in simple visual format. 2.W.3.A.e			
How Engines Work: A Slippery Subject	Youth will identify and compare different oil grades.				Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs. 1.ETS1.C.1
How Engines Work: Suck It Up!	Youth will conduct an experiment to explain the importance of clean air filters.				Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs. 1.ETS1.C.1
How Engines Work: Cool It!	Youth will demonstrate how moving air cools.				

Activity	Description	English Language Arts	Guidance & Counseling	Health	Science
How Engines Work: Spark It Up!	Youth will demonstrate spark plug maintenance.				
How Engines Work: Let It Breathe!	Youth will service an air cleaner on a small engine.	Apply research process to record basic information from literary and informational texts in simple visual format. 2.W.3.A.e			
Working Well with Small Engines: Keep It Labeled!	Youth will identify safety labels.			Identify potential hazards in and around the home. 1.RA.2.A.c	
Working Well with Small Engines: Closet Clues! What to Wear?	Youth will describe safe clothing to wear when working with small engines.			Identify potential hazards in and around the home. 1.RA.2.A.c	
Working Well with Small Engines: Lawn Ranger	Youth will identify the job a machine does.	Apply research process to record basic information from literary and informational texts in simple visual format. 2.W.3.A.e			

Activity	Description	English Language Arts	Guidance & Counseling	Health	Science
Making Small Engines Work for You: Learn to Earn	Youth will interview someone who works with small engines.	Apply research process to locate information in reference texts, electronic resources, interviews or visual sources and literary and informational texts. 3.W.3.A.d	Identify the skills needed by workers in the community. 2.CD8.B.a		
Making Small Engines Work for You: Wise Buys	Youth will evaluate the best tools to purchase for the job.	Apply research process to locate information in reference texts, electronic resources, interviews or visual sources and literary and informational texts. 3.W.3.A.d			


Small Engines (Level 2)
Small Engines: Warm It Up! (Level 2)

 Source: 4H.MISSOURI.EDU; [Small Engines Project](#)

Activity	Description	English Language Arts	Guidance & Counseling	Math	Science
How Engines Work: What's Your Type?	Youth will compare types of engines.	Apply research process to locate information in reference texts, electronic resources, interviews, or visual sources and literary and informational texts. 3.W.3.A.d			
How Engines Work: Name That Part!	Youth will identify internal small engine parts.	Apply research process to locate information in reference texts, electronic resources, interviews, or visual sources and literary and informational texts. 3.W.3.A.d			

Activity	Description	English Language Arts	Guidance & Counseling	Math	Science
How Engines Work: Which Tool'll Do It?	Youth will identify a variety of tools and their purpose.				
How Engines Work: Sizing Up!	Youth will calculate the size of an engine.			Write and solve two-step problems involving variables using any of the four operations. 3.RA.D.a	
How Engines Work: Under Pressure	Youth will perform a compression test and compute compression ratio.				Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem. 3.ETS1.B.a
How Engines Work: Mixing It Up!	Youth will adjust a carburetor.	Read, infer, and draw conclusions to follow and explain a set of written multi-step directions. 3.R.3.A.d			

Activity	Description	English Language Arts	Guidance & Counseling	Math	Science
How Engines Work: Tearing It Down!!	Youth will disassemble a small engine.	Read, infer, and draw conclusions to follow and explain a set of written multi-step directions. 3.R.3.A.d			
Working Well with Small Engines: Seasoning Your Engine	Youth will prepare a small engine for storage.	Read, infer, and draw conclusions to follow and explain a set of written multi-step directions. 3.R.3.A.d			
Working Well with Small Engines: Feel the Power!	Youth will research the effects of changing sprockets.	Read, infer, and draw conclusions to follow and explain a set of written multi-step directions. 3.R.3.A.d		Write and solve two-step problems involving variables using any of the four operations. 3.RA.D.a	Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem. 3.ETS1.B.a

Activity	Description	English Language Arts	Guidance & Counseling	Math	Science
Working Well with Small Engines: Riding Safety	Youth will determine the best direction to mow grass based on the center of gravity.				Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved. 3.ETS1.C.1
Working Well with Small Engines: Make the Cut!	Youth will demonstrate how different cuts affect grass health.				Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved. 3.ETS1.C.1
Making Small Engines Work for You: Information Overload	Youth will select small engine parts wisely.				Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem. 3.ETS1.B.a

Activity	Description	English Language Arts	Guidance & Counseling	Math	Science
Making Small Engines Work for You: Business Time?	Youth will decide whether to start a small business.		Compare interests and strengths with those of workers in the local community. 4.CD7.A.a		



Small Engines (Level 3)

Small Engines: Tune It Up! (Level 3)

Source: 4H.MISSOURI.EDU; [Small Engines Project](#)

Activity	Description	English Language Arts	Guidance & Counseling	Personal Finance	Science
How Engines Work: Motor Music	Youth will match engine sounds to problems and adjustments.	Read, infer, and draw conclusions to follow and explain a set of written multi-step directions. 3.R.3.A.d			
How Engines Work: Advanced Tools	Youth will identify and use diagnostic tools.	Read, infer, and draw conclusions to follow and explain a set of written multi-step directions. 3.R.3.A.d			
How Engines Work: Fuel and Air System—Coming Apart	Youth will demonstrate how to tear down an engine's fuel and air system.	Apply research process to record basic information from literary and informational texts in simple visual format. 2.W.3.A.e	Apply personal, ethical, and work habit skills needed for success in any school or work environment. 5.CD9.A.a		

Activity	Description	English Language Arts	Guidance & Counseling	Personal Finance	Science
How Engines Work: Fuel and Air System—Coming Together	Youth will demonstrate how to assemble an engine's air and fuel system.	Read, infer, and draw conclusions to follow and explain a set of written multi-step directions. 3.R.3.A.d	Apply personal, ethical, and work habit skills needed for success in any school or work environment. 5.CD9.A.a		
How Engines Work: Engine Base—Coming Apart	Youth will demonstrate how to tear down an engine's electrical system.	Read, infer, and draw conclusions to follow and explain a set of written multi-step directions. 3.R.3.A.d	Apply personal, ethical, and work habit skills needed for success in any school or work environment. 5.CD9.A.a		
How Engines Work: Engine Base—Coming Together	Youth will help someone to assemble an engine's electrical system.	Speak clearly, audibly, and to the point, using conventions of language when presenting individually or with a group by incorporating descriptive and sequential details in a student-designed or teacher-assigned topic. 4.SL.4.A.c	Apply personal, ethical, and work habit skills needed for success in any school or work environment. 5.CD9.A.a		

Activity	Description	English Language Arts	Guidance & Counseling	Personal Finance	Science
Working Well with Small Engines: Keep It Sharp!	Youth will sharpen a lawnmower blade.	Read, infer, and draw conclusions to follow and explain a set of written multi-step directions. 3.R.3.A.d			
Working Well with Small Engines: Know the Trends	Youth will research information about small engine design for pollution reduction.	Apply research process to locate information in reference texts, electronic resources, interviews, or visual sources and literary and informational texts. 3.W.3.A.d			Obtain and combine information about ways individual communities use science ideas to protect the Earth's resources and environment. 5.ESS3.C.1
Working Well with Small Engines: Rules and Regulations	Youth will research local small engine machine I	Apply research process to locate information in reference texts, electronic resources, interviews, or visual sources and literary and informational texts. 3.W.3.A.d			

Activity	Description	English Language Arts	Guidance & Counseling	Personal Finance	Science
Working Well with Small Engines: Selecting n Engine	Youth will compare and select a new small engine.	Apply research process to locate information in reference texts, electronic resources, interviews, or visual sources and literary and informational texts. 3.W.3.A.d			
Making Small Engines Work for You: Comparing and Purchasing	Youth will select the best machine for the best money.	Apply research process to locate information in reference texts, electronic resources, interviews, or visual sources and literary and informational texts. 3.W.3.A.d			Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem. 4.ETS1.B.a
Making Small Engines Work for You: Starting Your Own Business	Youth will estimate costs and Income to decide whether or not to start a small business.		Use current interests, strengths, and limitations to guide individual career exploration. 6.CD7.A.a	Differentiate between income and expenses. III.1.A	



Woodworking (Level 1)

Woodworking: Measuring Up (Level 1)

Source: 4H.MISSOURI.EDU; [Woodworking Project](#)

Activity	Description	English Language Arts	Guidance & Counseling	Math	Science
Getting Started: Finding Your Place	Youth will compare three possible work spaces based on safety and other features.		Practice the steps of problem solving and decision making for personal safety. 2.PS3.A.a		Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem. 3.ETS1.B.1
Getting Started: Tools and Equipment	Youth will identify tools needed for woodworking.				
Getting Started: Safety Is No Accident	Youth will identify safety rules and gear for various woodworking situations.		Identify steps of problem solving and decision making for personal safety. 2.PS3.A.a		

Activity	Description	English Language Arts	Guidance & Counseling	Math	Science
Working With Wood: What's Wood?	Youth will compare characteristics of hard and soft wood.				Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs. 2.ETS1.C.1
Practicing Your Skills: Taking Measure	Youth will practice measuring lines and blocks of wood accurately.			Measure to determine how much longer one item is than another. 2.GM.B.7	
Practicing Your Skills: Pounding Away	Youth will practice using a hammer and experiment with different length nails.		Practice the steps of problem solving and decision making for personal safety. 2.PS3.A.a		
Practicing Your Skills: I Say, You Saw, Handsaw	Youth will practice using different types of saws.		Practice the steps of problem solving and decision making for personal safety. 2.PS3.A.a		Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs. 2.ETS1.C.1

Activity	Description	English Language Arts	Guidance & Counseling	Math	Science
Making Connections : Holding It Together	Youth will identify various types of nails and their uses.				Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs. 2.ETS1.C.1
Making Connections : Sticking Together	Youth will learn about different types of glue and practice using glue and clamps to join wood pieces.	Read, infer, and draw conclusions to follow written multi- step directions. 2.R.3.A.e			
Making Connections : Butting Up	Youth will construct a butt joint.				
Finishing Up: Sanding Tips	Youth will experiment with different types of sandpaper and different approaches to sanding.				Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs. 2.ETS1.C.1
Finishing Up: Painting – The Finish	Youth will experiment with different approaches and different methods of preparation for painting.				Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs. 2.ETS1.C.1

Activity	Description	English Language Arts	Guidance & Counseling	Math	Science
Project Plans: flower box, letter of napkin holder, picture frame.	Youth will choose a project, follow multi-step directions, and complete the project.	Read, infer, and draw conclusions to follow written multi- step directions. 2.R.3.A.e			



Woodworking (Level 2)

Woodworking: Making the Cut (Level 2)Source: 4H.MISSOURI.EDU; [Woodworking Project](#)

Activity	Description	English Language Arts	Guidance & Counseling	Math	Science
Getting Ready: The Right Tools	Youth will identify and categorize the tools needed to build a birdhouse.	Apply research process to record basic information from literary and informational texts in simple visual format. 2.W.3.A.e			

Activity	Description	English Language Arts	Guidance & Counseling	Math	Science
Getting Ready: Safety First	Youth will make a tool safety poster and share by creating a presentation.	Speak clearly, audibly, and to the point, using conventions of language when presenting individually or with a group by presenting information with clear ideas and details while speaking clearly at an understandable pace. 3.SL.4.A.b	Practice the steps of problem solving and decision making for personal safety. 2.PS3.A.a		
Getting Ready: Exploring Woodworking Careers	Youth will explore woodworking careers and plan and conduct an interview.	Apply research process to locate information in reference texts, electronic resources, interviews or visual sources and literary and informational texts. 3.W.3.A.d	Gather information regarding training and education for a variety of careers. 3.CD8.B.a		

Activity	Description	English Language Arts	Guidance & Counseling	Math	Science
Getting Ready: Non-Money Bills	Youth will complete a bill of materials for a project and compare prices.	Apply research process to locate information in reference texts, electronic resources, interviews or visual sources and literary and informational texts. 3.W.3.A.d			Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem. 3.ETS1.B.1
Starting With Wood: Selecting a Project	Youth will decide on a project to build based on their skill level.				
Starting With Wood: Species Makes a Difference	Youth will compare qualities of different wood types.	Apply research process to locate information in reference texts, electronic resources, interviews or visual sources and literary and informational texts. 3.W.3.A.d			Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem. 3.ETS1.B.1

Activity	Description	English Language Arts	Guidance & Counseling	Math	Science
Fitting Together: Every Screw Needs a Screwdriver	Youth will investigate and practice with various types of screw drivers.	Apply research process to locate information in reference texts, electronic resources, interviews or visual sources and literary and informational texts. 3.W.3.A.d			
Fitting Together: Combination Squares	Youth will learn about and use a combination square.	Read, infer, and draw conclusions to follow and explain a set of written multi-step directions. 3.R.3.A.d			
Fitting Together: Cutting on the Angle	Youth will practice marking and cutting angles.			Identify and estimate angles and their measure. 4.GM.B.4	

Activity	Description	English Language Arts	Guidance & Counseling	Math	Science
Finishing Factors: Rough Paper	Youth will experiment with different types of sandpaper.				Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem. 3.ETS1.B.1
Finishing Factors: Pad Power	Youth will use and compare hand sanders and power sanders.				Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem. 3.ETS1.B.1
Finishing Factors: That Liquid Finisher	Youth will explore the advantages and disadvantages of various types of finish.				Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem. 3.ETS1.B.1

Activity	Description	English Language Arts	Guidance & Counseling	Math	Science
Finishing Factors: Brush Away	Youth will experiment with different types of brushes				Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem. 3.ETS1.B.1
Project Plans: napkin holder, birdhouse, or foot stool.	Youth will choose a project, follow multi-step directions, and complete the project.	Read, infer, and draw conclusions to follow and explain a set of written multi-step directions. 3.R.3.A.d			



Woodworking (Level 3)

Woodworking: Nailing it Together (Level 3)

Source: 4H.MISSOURI.EDU; [Woodworking Project](#)

Activity	Description	English Language Arts	Guidance & Counseling	Math	Science
Careers in Woodworking : What's the Latest?	Youth will research the latest trends in woodworking.	Apply research process to locate information in reference texts, electronic resources, interviews, or visual sources and literary and informational texts. 3.W.3.A.d			
Careers in Woodworking : Careers You Can Choose	Youth will research a wood working career.	Apply research process to locate information in reference texts, electronic resources, interviews or visual sources and literary and informational texts. 3.W.3.A.d	Gather information regarding training and education for a variety of careers. 3.CD8.B.a		

Activity	Description	English Language Arts	Guidance & Counseling	Math	Science
Making Connections: Hanging Around	Youth will identify various types of fasteners and their uses.	Apply research process to take simple notes in own words and sort evidence into provided categories or organizer. 3.W.3.A.f			
Making Connections: Clamping Techniques	Youth will Identify various types of clamps and identify the best clamp for different situations.				Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem. 4.ETS1.B.1
Making Connections: Connecting Rods	Youth will follow multi-step directions to make a dowel joint.	Read, infer, and draw conclusions to follow and explain a set of written multi-step directions. 3.R.3.A.d			

Activity	Description	English Language Arts	Guidance & Counseling	Math	Science
Making Connections: Living on the Edge	Youth will experiment to determine which type of edge joint is strongest.				Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem. 4.ETS1.B.1
Making Connections: Dado Joints	Youth will follow multi-step directions to make a dado joint.	Read, infer, and draw conclusions to follow and explain a set of written multi-step directions. 3.R.3.A.d			
Finishing Flourish: Staining	Youth will compare and rank different types of stain.				Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem. 4.ETS1.B.1
Making a Mark: Getting an Angle on Things	Youth will use a T-bevel and a protractor to measure and draw angles.			Draw and measure angles in whole-number degrees using a protractor. 4.GM.B.5	

Activity	Description	English Language Arts	Guidance & Counseling	Math	Science
Making a Mark: Plan Magic	Youth will enlarge a scale drawn plan.			Recognize and generate equivalent fractions. 4.NF.A.2	
Making a Mark: Planes Away	Youth will follow multi-step directions to learn to use a plane.	Read, infer, and draw conclusions to follow and explain a set of written multi-step directions. 3.R.3.A.d			
Is it Wood? Laminating Wood	Youth will build a laminate cutting board.	Read, infer, and draw conclusions to follow and explain a set of written multi-step directions. 3.R.3.A.d			
Is it Wood? Plywood	Youth will compare price and attributes of various types of plywood.	Apply research process to take simple notes in own words and sort evidence into provided categories or organizer. 3.W.3.A.f			

Activity	Description	English Language Arts	Guidance & Counseling	Math	Science
Project Plans: bookcase, jigsaw puzzle, a box	Youth will choose a project, follow multi-step directions, and complete the project.	Read, infer, and draw conclusions to follow and explain a set of written multi-step directions. 3.R.3.A.d			



Woodworking (Level 4)

Woodworking: Finishing Up (Level 4)

Source: 4H.MISSOURI.EDU; [Woodworking Project](#)

Activity	Description	English Language Arts	Guidance & Counseling	Personal Finance	Science
Planning and Doing: Tools for the Expert	Youth will research the latest woodworking tools.	Apply research process to identify a variety of relevant sources, literary and informational. 4.W.3.A.c	Compare interests and strengths with those of workers in the local community. 4.CD7.A.a		
Planning and Doing: Wood 'n Money	Youth will investigate the entrepreneurial aspects of woodworking.		Use current interests, strengths and limitations to guide individual career exploration. 6.CD7.A.a	Differentiate between income and expenses. III.1.A	
Power Tools: Tools of the Trade	Youth will practice safely using a table saw.		Apply personal, ethical, and work habit skills needed for success in any school or work environment. 5.CD9.A.a		

Activity	Description	English Language Arts	Guidance & Counseling	Personal Finance	Science
Power Tools: Taking the Edge Off	Youth will practice safely using a router.		Apply personal, ethical, and work habit skills needed for success in any school or work environment. 5.CD9.A.a		
Power Tools: Cutting With Power	Youth will practice safely using a circular saw.		Apply personal, ethical, and work habit skills needed for success in any school or work environment. 5.CD9.A.a		
Joinery: Dovetail Joints	Youth will follow complex directions to make a dovetail joint.	Read, infer, and draw conclusions to interpret details from procedural text to complete a task, solve a problem, or perform an action. 5.R.3.A.b	Apply personal, ethical, and work habit skills needed for success in any school or work environment. 5.CD9.A.a		

Activity	Description	English Language Arts	Guidance & Counseling	Personal Finance	Science
Joinery: Mortise and Tenon Joints	Youth will follow complex directions to make a blind mortise and tenon joint.	Read, infer, and draw conclusions to interpret details from procedural text to complete a task, solve a problem, or perform an action. 5.R.3.A.b	Apply personal, ethical, and work habit skills needed for success in any school or work environment. 5.CD9.A.a		
Exotic Woods: Woods of the World	Youth will research exotic woods and create a display.	Read, infer, and draw conclusions to interpret details from procedural text to complete a task, solve a problem, or perform an action. 5.R.3.A.b			
Exotic Woods: The Art of Veneer	Youth will learn about veneers and make a checkerboard.	Read, infer, and draw conclusions to interpret details from procedural text to complete a task, solve a problem, or perform an action. 5.R.3.A.b	Apply personal, ethical, and work habit skills needed for success in any school or work environment. 5.CD9.A.a		

Activity	Description	English Language Arts	Guidance & Counseling	Personal Finance	Science
Exotic Woods: Overlays and Inlays	Youth will create inlays and overlays.	Read, infer, and draw conclusions to interpret details from procedural text to complete a task, solve a problem, or perform an action. 5.R.3.A.b	Apply personal, ethical, and work habit skills needed for success in any school or work environment. 5.CD9.A.a		
Advanced Finishing Techniques: Sanding With Power	Youth will practice using power sanders and compare the various types.				Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved. 5.ETS1.C.1
Advanced Finishing Techniques: Sticking Together	Youth will compare the characteristics and safety precautions of various types of glue.	Read, infer, and draw conclusions to interpret details from procedural text to complete a task, solve a problem, or perform an action. 5.R.3.A.b			

Activity	Description	English Language Arts	Guidance & Counseling	Personal Finance	Science
Advanced Finishing Techniques: Refinishing	Youth will practice using chemical strippers, recognizing safety precautions and disposal laws.		Apply personal, ethical, and work habit skills needed for success in any school or work environment. 5.CD9.A.a		
Project Plans: step stool, table hockey game.	Youth will choose and complete a project: step stool and/or table top hockey.	Read, infer, and draw conclusions to interpret details from procedural text to complete a task, solve a problem, or perform an action. 5.R.3.A.b	Apply personal, ethical, and work habit skills needed for success in any school or work environment. 5.CD9.A.a		

Environmental Science and Natural Resources

Missouri 4-H Projects

We are working hard to get all the project curriculums aligned to Missouri State Learning Standards. This document will be updated frequently.

Projects with MLS aligned in this manual:

- Entomology
 - Entomology (levels 1--2)
- Geology
- Outdoor Adventures
 - Hiking

Projects available (MSL alignment coming soon):

- Entomology
 - Entomology (Level 3)
 - Beekeeping (levels 1--3)
 - Butterfly Wings
- Exploring the Environment
 - Ecosystem Services
 - Earth's Capacity
- Weather and Climate Science (levels 1--3)



Entomology Level 1

Entomology: Teaming With InsectsSource: 4H.MISSOURI.EDU; [Entomology Project](#)

Activity	Description	English Language Arts	Math	Science
What Is an Insect?	Youth will draw and name the major insect body parts.			Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and plant reproduction. 4.LS1.A.1
Copy Cat	Youth will create an insect including all the identified body parts.			Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and plant reproduction. 4.LS1.A.1
Define It	Youth will match insect parts to their definitions.			Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and plant reproduction. 4.LS1.A.1

Activity	Description	English Language Arts	Math	Science
Big Mouth Bugs	Youth will identify insect mouth types.			Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and plant reproduction. 4.LS1.A.1
FACETnating	Youth will describe how an insect sees through a compound eye.			Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and plant reproduction. 4.LS1.A.1
Insect Olympics	Youth will compare their own movements to those of insects.		Multiply a whole number of up to four digits by a one-digit whole number and multiply two two-digit numbers, and justify the solution. 4.NBT.A.6	
Pit Stop	Youth will collect and record insects using a pitfall trap.			
Buzz-z-z-zing Around	Youth will identify ways insects communicate.			Construct an argument that plants and animals have internal and external structures that

Activity	Description	English Language Arts	Math	Science
				<p>function to support survival, growth, behavior, and plant reproduction.</p> <p>4.LS1.A.1</p>
Alien Insects	Youth will identify invasive insect species.	<p>Develop an understanding of vocabulary by using conversational, general academic, and domain specific words and phrases.</p> <p>4.R.1.B.f</p>		
Establishing a Toe-Hold	Youth will identify traits that assure species success.			<p>Use evidence to construct an explanation for how the variations in characteristics among individuals of the same species may provide advantages in surviving and finding mates.</p> <p>3.LS3.B.1</p>
Where Are They?	Youth will make and record observations about insect pests.	<p>Apply research process to take simple notes in own words and sort evidence into provided categories or organizer.</p> <p>3.W.3.A.f</p>		

Activity	Description	English Language Arts	Math	Science
Ants and Uncles	Youth will make and record observations about insects and insect relatives.	Apply research process to take simple notes in own words and sort evidence into provided categories or organizer. 3.W.3.A.f		
Insect Investigation	Youth will make and record observations about insect behavior.	Apply research process to take simple notes in own words and sort evidence into provided categories or organizer. 3.W.3.A.f		
Chirp, Chirp	Youth will make and record observations about crickets.	Apply research process to take simple notes in own words and sort evidence into provided categories or organizer. 3.W.3.A.f		
Sherlock Bug	Youth will make and record observations and predictions about insect activity.	Apply research process to take simple notes in own words and sort evidence into provided categories or organizer. 3.W.3.A.f		

Activity	Description	English Language Arts	Math	Science
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I Eat Insects	Youth will identify animals that eat insects.	Develop and demonstrate reading skills in response to text by drawing conclusions and support with textual evidence. 3.R.1.A.b		
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Entomology Level 2

Entomology: Teaming with InsectsSource: 4H.MISSOURI.EDU; [Entomology Project](#)

Activity	Description	English Language Arts	Science
Tools of the Trade	Youth will follow multi-step directions to create entomology tools.	Read, infer, and draw conclusions to interpret details from procedural text to complete a task, solve a problem or perform an action. 5.R.3.A.b	Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem. 2.ETS1.B.1
Measuring Diversity	Youth will create different insect traps to collect and observe insects from various habitats.	Read, infer, and draw conclusions to interpret details from procedural text to complete a task, solve a problem or perform an action. 5.R.3.A.b	Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem. 2.ETS1.B.1
Your Are My Light	Youth will create a modified Wilkinson Trap to collect and identify insects.	Read, infer, and draw conclusions to interpret details from procedural text to complete a task, solve a problem or perform an action. 5.R.3.A.b	Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem. 2.ETS1.B.1
I'm Sweet on You	Youth will create different insect traps to collect and observe insects from various habitats.	Read, infer, and draw conclusions to interpret details from procedural text to complete a task, solve a problem or perform an action. 5.R.3.A.b	Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem. 2.ETS1.B.1

Activity	Description	English Language Arts	Science
Come to the Light	Youth will create different insect traps to collect and observe insects from various habitats.	Read, infer, and draw conclusions to interpret details from procedural text to complete a task, solve a problem or perform an action. 5.R.3.A.b	Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem. 2.ETS1.B.1
Plants That Attract Butterflies	Youth will observe and record insect behavior around various plants.	Apply research process to follow guidelines for collecting and recording information. 5.W.3.A.c	
Spread Your Wings and Fly	Youth will make and use a spreading board to mount moths, skippers, and butterflies.	Read, infer, and draw conclusions to interpret details from procedural text to complete a task, solve a problem or perform an action. 5.R.3.A.b	
Color My World	Youth will create different insect traps to collect and observe insects from various habitats.	Read, infer, and draw conclusions to interpret details from procedural text to complete a task, solve a problem or perform an action. 5.R.3.A.b	Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved. 5.ETS1.C.1

Activity	Description	English Language Arts	Science
Sowbug Investigations	Youth will conduct investigations to answer questions about sowbugs.	Read, infer, and draw conclusions to interpret details from procedural text to complete a task, solve a problem or perform an action. 5.R.3.A.b	Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved. 5.ETS1.C.1
Life's Stages	Youth will collect and observe insects at various stages of development.	Read, infer, and draw conclusions to interpret details from procedural text to complete a task, solve a problem or perform an action. 5.R.3.A.b	Develop a model to compare and contrast observations on the life cycle of different plants and animals. 3.LS1.B.1
Invasive Species Investigation	Youth will research and report on invasive species.	Apply research process to select relevant resources, literary and informational. 5.W.3.A.d	Construct an argument with evidence that in a particular ecosystem some organisms—based on structural adaptations or behaviors—can survive well some survive less well, and some cannot. 3.LS3.C.1
What's Hiding in My Closet?	Youth will create an IPM Home Data Sheet to determine how to reduce the number of pests that could enter their home.		Construct an argument with evidence that in a particular ecosystem some organisms—based on structural adaptations or behaviors—can survive well some survive less well, and some cannot. 3.LS3.C.1
A Sticky Situation	Youth will make sticky traps to collect indoor insects.	Read, infer, and draw conclusions to interpret details from procedural text to complete a task, solve a	Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it

Activity	Description	English Language Arts	Science
		problem or perform an action. 5.R.3.A.b	function as needed to solve a given problem. 2.ETS1.B.1
Footprint Clues	Youth will observe and identify the tracks of various insects.	Read, infer, and draw conclusions to interpret details from procedural text to complete a task, solve a problem or perform an action. 5.R.3.A.b	Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem. 2.ETS1.B.1
Write, Right	Youth will create and use a field journal.	Read, infer, and draw conclusions to interpret details from procedural text to complete a task, solve a problem or perform an action. 5.R.3.A.b	
Exoskeletons	Youth will understand the properties of the exoskeleton.	Read, infer, and draw conclusions to interpret details from procedural text to complete a task, solve a problem or perform an action. 5.R.3.A.b	Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and plant reproduction. 4.LS1.A.1



Butterfly Wings

Butterfly Wings

Source: 4H.MISSOURI.EDU

Activity	Description	English Language Arts	Science	Social Studies
Explore: Explore Your World	Youth will use their five senses to experience familiar things outdoors in new ways.	Apply research process to take simple notes in own words and sort evidence into provided categories or organizer. 3.W.3.A.f		
Explore: Step Into the World of Butterflies	Youth will compare two sites for butterflies.	Apply research process to take simple notes in own words and sort evidence into provided categories or organizer. 3.W.3.A.f		
Explore: What's Happening Here?	Youth will observe and document butterfly behaviors.	Apply research process to take simple notes in own words and sort evidence into provided categories or organizer. 3.W.3.A.f		
Explore: What's the Connection?	Youth will describe connections among butterflies, habitats and people.	Speak clearly, audibly, and to the point, using conventions of language when presenting individually or with a group by presenting information with clear ideas and details while speaking clearly at an understandable pace. 3.SL.4.A.b.		

Activity	Description	English Language Arts	Science	Social Studies
Learn: Parts and Marks	Youth will learn to identify and describe butterflies using body part names and field marks.	Develop an understanding of vocabulary by using conversational, general academic, and domain specific words and phrases. 4.R.1.B.f	Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and plant reproduction. 4.LS1.A.1	
Learn: Butterfly Detective	Youth will determine clues about butterflies as they read descriptions and examine pictures.	Develop and demonstrate reading skills in response to text by drawing conclusions and support with textual evidence. 3.R.1.A.b.		
Learn: It's All in the Family	Youth will identify members of the six butterfly families.	Develop an understanding of vocabulary by using conversational, general academic, and domain specific words and phrases. 4.R.1.B.f	Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and plant reproduction. 4.LS1.A.1	
Contribute: Select a Site	Youth will select and describe a site to monitor butterflies.	Read, infer, and draw conclusions to use text and graphic features to locate information and to make and verify predictions. 3.R.3.A.c.		Read and construct historical and current maps. 3.EG.5.A.a.
Contribute: Practice Butterfly Watching	Youth will practice finding, observing and identifying butterflies.	Apply research process to take simple notes in own words and sort evidence into provided categories or organizer. 3.W.3.A.f		

Activity	Description	English Language Arts	Science	Social Studies
Contribute: Be a Citizen Scientist	Youth will keep a date list of the butterflies they see and share the information on the WINGS web site.	Read to develop an understanding of media and its components by identifying text structures and graphics features of a web page. 3.R.4.A.d.		
Investigate: Question Quest	Youth will plan and conduct an investigation to explore their own questions about butterflies.	Apply research process to create a research question to address relevant to a chosen topic. 4.W.3.A.b.		



Geology

Geology: Introduction to GeologySource: 4H.MISSOURI.EDU; [Geology Project](#)

Activity	Description	English Language Arts	Guidance & Counseling	Science	Social Studies
Project Planning	Youth will complete “My 4-H Geology Project” to set goals, and to plan activities and demonstrations.		Identify education goal-setting and self-assessment skills. 3.AD6.A.a		
Elements	Youth will identify the symbol for earth’s elements and identify the three kinds of rocks.				
Getting to Know Missouri Geology	Youth will research to find information about Missouri Geology.	Apply research process to locate information in reference texts, electronic resources, interviews, or visual sources and literary and informational texts. 3.W.3.A.d			Identify regions in Missouri. 3.EG.5.F.a
Rock, Mineral, Fossil Collections	Youth will collect, keep records, clean, identify and display rocks and minerals.	Apply research process to locate information in reference texts, electronic resources, interviews, or visual sources and literary and informational texts. 3.W.3.A.d		Identify evidence from patterns I rock formations and fossils in rock layers to support an explanation for changes in a landscape over time. 4.ESS1.C.1	



Outdoor Adventures (Level 1)

Outdoor Adventures: Hiking (Level 1)

Source: 4H.MISSOURI.EDU; [Outdoor Adventures Projects](#)

Activity	Description	Guidance & Counseling	Health	Science
Planning the Journey	Youth will create hiking goals and a plan to track progress towards goals.	Apply time-management and organizational techniques necessary for assignments and/or task completion. 4.AD4.B.a		
Planning Your Trek: So, You Want to Take a Hike?	Youth will create a plan for a day hike.	Apply time-management and organizational techniques necessary for assignments and/or task completion. 4.AD4.B.a		
Planning Your Trek: Hiking Essentials	Youth will choose items to take on a day hike.	Apply time-management and organizational techniques necessary for assignments and/or task completion. 4.AD4.B.a		

Activity	Description	Guidance & Counseling	Health	Science
Planning Your Trek: Get Packing!	Youth will plan and pack a backpack for a day hike.	Apply time-management and organizational techniques necessary for assignments and/or task completion. 4.AD4.B.a		
Planning Your Trek: Outdoor Duds	Youth will understand body heat principles and clothing types to select appropriate outdoor clothing.			Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs. 2.ETS1.C.a
Planning Your Trek: Layer Upon Layer	Youth will discover the “layering” principle to regulate body temperature.			
Planning Your Trek: These Boots Are Made for Walkin’	Youth will choose hiking boots or shoes to wear on a day hike.			
Healthy Hiking: Food Matters	Youth will plan and prepare food for a day hike.		Describe the relationship between food intake and energy. 4.ME.2.A.b	
Healthy Hiking: What’s in a First Aid Kit?	Youth will prepare a basic first aid kit for hiking and camping.		Recognize what to do for minor injuries under adult supervision. 2.RA.B.a	

Activity	Description	Guidance & Counseling	Health	Science
Healthy Hiking: Hot Topics	Youth will demonstrate hot to care for blisters and hot spots.		Recognize what to do for minor injuries under adult supervision. 2.RA.B.a	
Out in the Wide World: Leave No Trace	Youth will practice Leave No Trace outdoor ethics.		Describe what an individual can do to help preserve the environment and promote environmental health. 3.RA.4.B.a	
Out in the Wide World: Happy Hikers	Youth will demonstrate good trail etiquette.	Compare and contrast character traits needed for different situations. 2.PS1.C.a		
Out in the Wide World: In the Right Direction	Youth will practice using a compass correctly.			
Out in the Wide World: A Bad Spell of Weather	Youth will practice safety procedures for potentially dangerous weather conditions.			
Your Niche on the Trail: Protective Places	Youth will identify outdoor safe shelters for various conditions.			
Your Niche on the Trail: Whose Foot prints Are These?	Youth will observe plants and animals safely and respectfully.			

Plant and Animal Science

Missouri 4-H Projects

We are working hard to get all the project curriculums aligned to Missouri State Learning Standards. This document will be updated frequently. Here's what is available so far:

Projects with MLS aligned in this manual:

- Agronomy (Levels 1—2)
- Cats (levels 1—3)
- Dogs (levels 1—3)
- Horticulture
 - Floriculture (levels 1—4)
 - Gardening (levels 1—3)
 - Landscape Design (levels 1—3)
- Pets
 - Guinea Pigs
 - Pets 1-3

Projects available (MSL alignment coming soon):

- Horses
 - Horseless Horse & Horse Knowledge



Agronomy (Level 1)

Agronomy: Seedy Business

Source: 4H.MISSOURI.EDU; [Agronomy Projects](#)

Activity	Description	English Language Arts	Guidance & Counseling	Science
Farmers – What Would We Do Without Them?	Youth will interview a local farmer to learn about local crop production.	Apply a research process to locate information in reference texts, electronic resources, interviews, or visual sources and literary and informational texts. 3.W.3.A.d	Explain what workers know and need to do in various careers. 3.CD8.A.a	
I Spy Soybeans and Corn	Youth will investigate examples of products in use around them that come from soybeans and corn and create a new possible product made from corn or soybeans.	Apply a research process to locate information in reference texts, electronic resources, interviews, or visual sources and literary and informational texts. 3.W.3.A.d		
Farmer, Farmer, How Does Your Crop Grow?	Youth will dissect and make observations about various seeds.	Apply a research process to take simple notes in own words and sort evidence into provided categories or organizer. 3.W.3.A.f		
From Seed to Plant	Youth will conduct an experiment to determine the percent germinated.	Apply a research process to take simple notes in own words and sort evidence into provided categories or organizer. 3.W.3.A.f		

Activity	Description	English Language Arts	Guidance & Counseling	Science
How Do Plants Grow?	Youth will conduct an experiment to determine how much damage a seedling can withstand.			Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and plant reproduction. 4.LS1.A.1
Good Soil = Good Crops	Youth will conduct a soil sampling to determine the quality of the soil.	Apply a research process to take simple notes in own words and sort evidence into provided categories or organizer. 3.W.3.A.f		
Good Weather = Good Crops Warm Soils = Good Crops	Youth will monitor soil temperatures over time.	Apply a research process to take simple notes in own words and sort evidence into provided categories or organizer. 3.W.3.A.f		
Pesky Pests = Poor Crops	Youth will conduct an experiment to determine what weeds are present in the soil.	Apply a research process to take simple notes in own words and sort evidence into provided categories or organizer. 3.W.3.A.f		
Bug Eye'd	Youth will conduct research and take notes about commonly found insects.	Apply a research process to take simple notes in own words and sort evidence into provided categories or organizer. 3.W.3.A.f		
Not Too Deep!	Youth will conduct an experiment to determine the best depth for planting seeds.	Apply a research process to take simple notes in own words and sort evidence into provided categories or organizer. 3.W.3.A.f		Plan and conduct investigations on the growth of plants when growing conditions are altered. 2.LS2.A.1

Activity	Description	English Language Arts	Guidance & Counseling	Science
What Can I Do?	Youth will explore crop related careers and interview someone in one of those careers.	Apply a research process to locate information in reference texts, electronic resources, interviews, or visual sources and literary and informational texts. 3.W.3.A.d	Explain what workers do and need to know in various careers. 3.CD8.A.a	



Agronomy (Level 2)

Agronomy: Green and Growing

Source: 4H.MISSOURI.EDU; [Agronomy Projects](#)

Activity	Description	English Language Arts	Guidance & Counseling	Math	Science
Why Worry about Soil?	Youth will conduct an experiment to determine the impact of different types of soil on plant growth.				Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved. 5.ETS1.C.1
Soil Bits and Pieces	Youth will conduct explorations to identify different types of soil.	Apply research process to convert graphic/visual data into written notes. 5.W.3.A.f			
The Soil Saver	Youth will measure the amount of surface residue in a field.			Demonstrate fluency with addition and subtraction of whole numbers. 4.NBT.A.5	
How Does Residue Save Soil?	Youth will create a model to show how crop residue helps to reduce erosion.				Plan and conduct scientific investigations or simulations to provide evidence how natural processes shape Earth's surfaces. 4.ESS2.A.1

Activity	Description	English Language Arts	Guidance & Counseling	Math	Science
Erosion Managers	Youth will conduct interviews and make observations to identify a variety of soil erosion control measures.	Apply research process to locate information in reference texts, electronic resources, interviews, or visual sources and literary and informational texts. 3.W.3.A.d			Obtain and combine information about ways individual communities use science ideas to protect the Earth's resources and environment. 5.ESS3.C.1
Missing Plant Nutrients	Youth will conduct an experiment to determine the impact of soil nutrients on plants.	Apply research process to convert graphic/visual data into written notes. 5.W.3.A.f			Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved. 5.ETS1.C.1
Soybean Nitrogen Nodules	Youth will observe and identify soybean nitrogen nodules and explain their importance.				
Growing Degree Days	Youth will record and track over time growing degree days.			Demonstrate fluency with addition and subtraction of whole numbers. 4.NBT.A.5	
Study Seed Tags	Youth will read and understand the information on seed tags.	Read, infer, and draw conclusions to interpret factual or quantitative information. 5.R.3.A.c			

Activity	Description	English Language Arts	Guidance & Counseling	Math	Science
Selecting the Right Seed for You!	Youth will interview a local expert to determine the best seed to use.	Apply research process to locate information in reference texts, electronic resources, interviews, or visual sources and literary and informational texts. 3.W.3.A.d			
It's Not Just a Soybean Anymore!	Youth will experiment with planting different varieties of soybeans,				Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved. 5.ETS1.C.1
What's in a Date?	Youth will experiment with planting soybeans on different dates and record the results.				Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved. 5.ETS1.C.1
Bean (or Corn) Counting!	Youth will utilize a sampling method to count plants (corn or soybeans) in a field.			Solve and justify multi-step problems involving variables, whole numbers, fractions and decimals. 5.RA.C.5	

Activity	Description	English Language Arts	Guidance & Counseling	Math	Science
Who's Gonna Win?	Youth will conduct an experiment to determine the affects of competition on plant production.				Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved. 5.ETS1.C.1
Crop Scouts Needed	Youth will practice crop scouting for pests.	Apply research process to convert graphic/visual data into written notes. 5.W.3.A.f			
What's New?	Youth will research the impact of value-added products.	Read, infer, and draw conclusions to interpret factual or quantitative information. 5.R.3.A.c			
Careers That Dig Dirt	Youth will investigate possible careers related to crop production.		Compare interests and strengths with those of workers in the local community. 4.CD7.A.a		



Cat Care (Level 1)

Cat: Purr-fect Pals (Level 1)

Source: 4H.MISSOURI.EDU; [Cats Project](#)

Activity	Description	Guidance & Counseling	Science	English Language Arts
Identification and Selection: On the Prowl	Youth will follow a decision-making process to choose the best cat for their family.		Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs. 2.ETS1.C.1	
Identification and Selection: The Long and Short of It	Youth will research characteristics of different breeds of cats.			Apply research process to record basic information from literary and informational texts in simple visual format. 2.W.2.A.e
Identification and Selection: Head and Shoulders, Knees and Toes	Youth will identify body parts of a cat.			

Activity	Description	Guidance & Counseling	Science	English Language Arts
Training and Showing: Carrying Kitty	Youth will demonstrate how to pick up, hold and carry a cat.			<p>Speak clearly, audibly, and to the point, using conventions of language when presenting individually or with a group by: explaining a topic using a prop, picture, or other visual aid with assistance to show understanding.</p> <p>1.SL.4.A.a</p>
Training and Showing: Cat-a-Comb	Youth will explain how to properly groom a cat.	<p>Reflect on personal roles a home and at school and identify responsibilities.</p> <p>3.PS1.B.a</p>		
Training and Showing: Showing Off	Youth will demonstrate all the steps involved in cat showmanship.			<p>Speak clearly, audibly, and to the point, using conventions of language when presenting individually or with a group by: explaining a topic using a prop, picture, or other visual aid with assistance to show understanding.</p> <p>1.SL.4.A.a</p>
Training and Showing: Depend on Me	Youth will self-evaluate and develop goals for being a responsible cat owner.	<p>Build individual work habits and study skills that apply to a variety of learning situations.</p> <p>2.AD4.B.a</p>		
Safety and Management: Without a Scratch	Youth will conduct a cat hazards home survey.			

Activity	Description	Guidance & Counseling	Science	English Language Arts
Safety and Management: Litter for Your Critter	Youth will select litter cats prefer by conducting a preference trial		Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs. 2.ETS1.C.1	
Safety and Management: Free Kitten?	Youth will develop a budget for keeping a cat.	Reflect on personal roles a home and at school and identify responsibilities. 3.PS1.B.a		
Health: Ding Dong Bell, Is Kitty Feeling Well?	Youth will evaluate a cat for signs of good health.	Reflect on personal roles a home and at school and identify responsibilities. 3.PS1.B.a		
Health: Is Something Bugging You?	Youth will describe traits of common cat parasites.			
Health: Hot Shots	Youth will create an up-to-date record of a cat's vaccination history.	Reflect on personal roles a home and at school and identify responsibilities. 3.PS1.B.a		
Health: Save the Day, Neuter or Spay	Youth will explain the procedures and benefits of spaying/neutering.	Reflect on personal roles a home and at school and identify responsibilities. 3.PS1.B.a		



Cat Care (Level 2)

Cat: Climbing Up (Level 2)

Source: 4H.MISSOURI.EDU; [Cats Project](#)

Activity	Description	Guidance & Counseling	Science	English Language Arts
Identification and Characteristics: Recognizing Cat Breeds	Youth will research and identify characteristics of cat breeds.			Apply research process to record basic information from literary and informational texts in simple visual format. 2.W.3.A.e
Identification and Characteristics: Six Senses	Youth will observe and record a cat's use of their six senses.			Apply research process to take simple notes in own words and sort evidence into provided categories or organizer. 3.W.3.A.f
Identification and Characteristics: Cat Cousins	Youth will research and describe unique features of the cat family.			Apply research process to take simple notes in own words and sort evidence into provided categories or organizer. 3.W.3.A.f

Activity	Description	Guidance & Counseling	Science	English Language Arts
Training and Showing: Ready, Set, Show	Youth will research and describe how a cat show is planned, organized and conducted.			Apply research process to locate information in reference texts, electronic resources, interviews or visual sources and literary and informational texts. 3.W.3.A.d
Training and Showing: Cats-ercise	Youth will demonstrate two ways to exercise a cat.	Reflect on personal roles at home and at school and identify responsibilities. 3.PS1.B.a		
Training and Showing: Celebrity Cats	Youth will name and describe famous cats.			Apply research process to record basic information from literary and informational texts in simple visual format. 2.W.3.A.e
Health and Nutrition: Purr-sonaility	Youth will observe and record cat behaviors.			Apply research process to take simple notes in own words and sort evidence into provided categories or organizer. 3.W.3.A.f
Health and Nutrition: A Pause for Claws	Youth will explain the process of declawing.			Apply research process to locate information in reference texts, electronic resources, interviews or visual sources and literary and informational texts. 3.W.3.A.d

Activity	Description	Guidance & Counseling	Science	English Language Arts
Health and Nutrition: Feline First Aid	Youth will describe emergency situations and appropriate first aid.			Apply research process to locate information in reference texts, electronic resources, interviews or visual sources and literary and informational texts. 3.W.3.A.d
Health and Nutrition: Checking the Label	Youth will read labels and compare brands of cat food to make a choice.		Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs. 2.ETS1.C.1	
Health and Nutrition: Special Needs = Special Diets	Youth will research foods for cats that require special diets.			Apply research process to locate information in reference texts, electronic resources, interviews or visual sources and literary and informational texts. 3.W.3.A.d
Responsible Cat Ownership: Me and My Shadow	Youth will assess a cat's temperament for animal-assisted activities.	Reflect on personal roles in the community and identify responsibilities as a community member. 4.PS1.B.a		
Responsible Cat Ownership: Cats on the Go	Youth will complete a plan for when and how to travel with a cat.	Reflect on personal roles in the community and identify responsibilities as a community member. 4.PS1.B.a		

Activity	Description	Guidance & Counseling	Science	English Language Arts
Responsible Cat Ownership: Are You an “Innie” or an “Outie”?	Youth will develop a list of risks and benefits to help decide if their cat should be inside or outside.	Apply effective problem-solving, decision-making and refusal skills to make safe and healthy choices in various life situations. 4.PS3.A.a		



Cat Care (Level 3)

Cat: Leaping Forward (Level 3)Source: 4H.MISSOURI.EDU; [Cats Project](#)

Activity	Description	Guidance & Counseling	Science	English Language Arts	Health
Health and Reproduction: All Systems Go	Youth will name the major body systems of a cat and label their parts and functions.		Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and plant reproduction. 4.LS1.A.1		
Health and Reproduction: Let's NOT Play Catch!	Youth will describe diseases transmissible between cats and humans				Identify that there are certain conditions and lifestyle behaviors that enhance both the growth and spread of pathogens. 4.RA.1.C.a

Activity	Description	Guidance & Counseling	Science	English Language Arts	Health
Health and Reproduction: Queen for a Day	Youth will explain create questions, interview and observe to learn about cat reproduction and breeding management.			Apply research process to locate information in reference texts, electronic resources, interviews or visuals sources and literary and informational texts. 3.W.3.A.d	
Health and Reproduction: Your Cat's Golden Years	Youth will observe, record and compare the behavior and functions of an aged cat and a young cat.			Apply research process to take simple notes in own words and sort evidence into provided categories. 3.W.3.A.f	
Behavior and Showing: Brown Eyes/Green Eyes	Youth will determine the genetic probability of eye color.				
Behavior and Showing: Scaredy Cat	Youth will observe and identify fear and stress behaviors in cats.			Apply research process to take simple notes in own words and sort evidence into provided categories. 3.W.3.A.f	

Activity	Description	Guidance & Counseling	Science	English Language Arts	Health
Behavior and Showing: Conducting a Cat Showmanship Clinic	Youth will plan and conduct a showmanship clinic for other 4-H members.			Speak clearly, audibly, and to the point, using conventions of language when presenting individually or with a group by planning an appropriate presentation based on audience.	Identify and develop personal planning strategies to manage individual, family, and school responsibilities. 6.PS1.B.a
				5.SL.4.A.b	
Social Issues: It's the Law	Youth will examine community laws related to cats.	Reflect on personal roles in the community and identify responsibilities as a community member. 4.PS1.B.a			
Social Issues: Cats, Cats and More Cats	Youth will determine cat reproduction capabilities and prevention.	Reflect on personal roles in the community and identify responsibilities as a community member. 4.PS1.B.a			

Activity	Description	Guidance & Counseling	Science	English Language Arts	Health
Social Issues: Animal rights: Who's Right?	Youth will lead a group discussion on animal welfare and animal rights issues.	Demonstrate respect for others' personal opinions and ideas. 4.PS2.A.a		Develop and apply effective listening skills and strategies in formal and informal settings by following agreed upon rules for listening and fulfilling discussion rules independently. 5.SL.1.A.a	Recognize situations where the perspective of others may differ from your own. 5.FS.2.B.a
Business and Leadership: Going Into Business	Youth will develop a business plan.			Apply research process to take simple notes in own words and sort evidence into provided categories. 3.W.3.A.f	
Business and Leadership: Lead the Way	Youth will evaluate their own leadership skills.	Identify individual strengths and areas for personal growth and good citizenship. 6.PS1.A.a			

Activity	Description	Guidance & Counseling	Science	English Language Arts	Health
Business and Leadership: Me, the Teacher	Youth will design and teach a cat activity.	Identify and develop personal planning strategies to manage individual, family, and school responsibilities. 6.PS1.B.a		Speak clearly, audibly, and to the point, using conventions of language when presenting individually or with a group by planning an appropriate presentation based on audience. 5.SL.4.A.b	
Business and Leadership: A Role Model—Wow!	Youth will set goals and develop a plan to teach others about cats.	Identify and develop personal planning strategies to manage individual, family, and school responsibilities. 6.PS1.B.a		Speak clearly, audibly, and to the point, using conventions of language when presenting individually or with a group by planning an appropriate presentation based on audience. 5.SL.4.A.b	



Dog (Level 1)

Dog: Wiggles and Wags (Level 1)Source: 4H.MISSOURI.EDU; [Dog Projects](#)

Activity	Description	Guidance & Counseling	Science	Health	English Language Arts
Selection and Care: Dog Friends on the Page and Screen	Youth will recognize the importance of dogs in society.				Read, infer, analyze, and draw conclusions to describe characters, setting, problem, solution, and events in logical sequence. 1.R.2.A.a
Selection and Care: Time for TLC	Youth will schedule time for dog care.	Reflect on personal roles at home and at school and identify responsibilities. 3.PS1.B.a			
Selection and Care: Matchmaker, Matchmaker	Youth will gather and analyze information to help choose a new dog for the family.	Apply effective problem-solving, decision-making, and refusal skills to make safe and healthy choices in various life situations. 4.PS3.A.a			

Activity	Description	Guidance & Counseling	Science	Health	English Language Arts
Selection and Care: Name That Breed!	Youth will identify the breed groups for twenty different dog breeds.		Make observations to construct an evidence based account that young plants and animals are like, but not exactly like, their parents. 1.LS3.A.1		Apply research process to record basic information from literary and informational texts in simple visual format. 2.W.2.A.e
Selection and Care: Meet the Mutts!	Youth will describe the advantages and disadvantages of mixed breed dogs.		Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs. 2.ETS1.C.1		
Selection and Care: Oh Where, O Where Has My Little Dog Gone?	Youth will create plans to prevent a dog from getting lost or finding it if it gets lost.	Reflect on personal roles at home and at school and identify responsibilities. 3.PS1.B.a			
Health and Nutrition: Nose and Nail, Toe and Tail	Youth will name an identify at least 10 dog body parts.				
Health and Nutrition: The Skinny on Dog Food	Youth will name the major food nutrients.	Reflect on personal roles at home and at school and identify responsibilities. 3.PS1.B.a			

Activity	Description	Guidance & Counseling	Science	Health	English Language Arts
Health and Nutrition: Worms, Germs and Things That Squirm	Youth will explain how diseases and parasites are spread and prevented.	Reflect on personal roles at home and at school and identify responsibilities. 3.PS1.B.a		Identify that there are certain conditions and lifestyle behaviors that enhance both the growth and spread of pathogens. 4.RA.1.C.a	
Behavior and Training: A Puppy Is in da House	Youth will describe how to housetrain a dog.	Reflect on personal roles at home and at school and identify responsibilities. 3.PS1.B.a			Apply research process to record basic information from literary and informational texts in simple visual format. 2.W.2.A.e
Behavior and Training: Can You Speak "Dog"?	Youth will interpret basic dog body language and behavior.				
Behavior and Training: Saying Good-bye	Youth will explain the emotional aspects of losing a dog.	Identify appropriate ways to express needs, wants, and feelings. 2.FS.2.C.a			
Behavior and Training: Behave!	Youth will describe how to teach a dog basic obedience commands.	Reflect on personal roles at home and at school and identify responsibilities. 3.PS1.B.a			

Activity	Description	Guidance & Counseling	Science	Health	English Language Arts
Fitting and Showing: Here Comes the Groom(ing)	Youth will demonstrate how to clean a dog's coat, eyes, ears and teeth.	Reflect on personal roles at home and at school and identify responsibilities. 3.PS1.B.a			Apply research process to locate information in reference texts, electronic resources, interviews or visual sources and literary and informational texts. 3.W.3.A.d Speak clearly, audibly, and to the point, using conventions of language when presenting individually or with a group by: explaining a topic using a prop, picture, or other visual aid with assistance to show understanding. 1.SL.4.A.a

Missouri 4-H

Missouri Learning Standards Alignment Guide for 4-H Curriculum



Extension
University of Missouri



Dog (Level 2)

Dog: Canine Connection (Level 2)

Source: 4H.MISSOURI.EDU; [Dog Projects](#)

Activity	Description	Guidance & Counseling	Science	English Language Arts
Selection and Care: Oh Where, Oh Where Is My Little Dog From?	Youth will name the country of origin of dog breeds.			<p>Apply research process to gather evidence from available sources, literary and informational.</p> <p>2.W.3.A.d</p>
Selection and Care: Pack Your Bags, Dawg!	Youth will describe factors to consider when selecting a dog boarding kennel.			<p>Apply research process to locate information in reference texts, electronic resources, interviews or visual sources and literary and informational texts.</p> <p>3.W.3.A.d</p>
Selection and Care: Your Canine's Bottom Line	Youth will calculate the cost of owning a dog.			<p>Apply research process to locate information in reference texts, electronic resources, interviews or visual sources and literary and informational texts.</p> <p>3.W.3.A.d</p>
Selection and Care: Investigating Inherited Imperfections	Youth will describe inherited problems of specific dog breeds.		<p>Make observations to construct an evidence based account that young plants and animals are like, but not exactly like, their parents.</p> <p>1.LS3.A.1</p>	<p>Apply research process to locate information in reference texts, electronic resources, interviews or visual sources and literary and informational texts.</p> <p>3.W.3.A.d</p>
Health and Nutrition: Saving Puppy Ryan	Youth will conduct a safety inventory and develop a plan to reduce risk.	<p>Apply effective problem-solving, decision-making and refusal skills to make safe and healthy choices in various life situations.</p> <p>4.PS3.A.a</p>		<p>Apply research process to locate information in reference texts, electronic resources, interviews or visual sources and literary and informational texts.</p> <p>3.W.3.A.d</p>

Activity	Description	Guidance & Counseling	Science	English Language Arts
Health and Nutrition: Check the Label, Mabel	Youth will compare dog foods and select the one that best meets their dog's nutritional needs.		Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs. 2.ETS1.C.1	Apply research process to locate information in reference texts, electronic resources, interviews or visual sources and literary and informational texts. 3.W.3.A.d
Health and Nutrition: Canine Clinic Capers	Youth will visit a veterinary clinic, ask questions and take notes.			Apply research process to locate information in reference texts, electronic resources, interviews or visual sources and literary and informational texts. 3.W.3.A.d
Health and Nutrition: Parasites Really Bug Me!	Youth will describe impact and control of dog parasites.			Apply research process to gather evidence from available sources, literary and informational. 2.W.3.A.d
Health and Nutrition: Stop the Explosion!	Youth will explain the reasons for spaying and neutering dogs.	Reflect on personal roles in the community and identify responsibilities as a community member. 4.PS1.B.a		
Behavior and Training: Ain't Misbehavin'	Youth will investigate problem behaviors for dogs and corrective actions.	Apply effective problem-solving, decision-making and refusal skills to make safe and healthy choices in various life situations. 4.PS3.A.a		Apply research process to locate information in reference texts, electronic resources, interviews or visual sources and literary and informational texts. 3.W.3.A.d

Activity	Description	Guidance & Counseling	Science	English Language Arts
Behavior and Training: More Than “Sit”!	Youth will plan a training program to teach a dog to do a trick in order to overcome an undesirable behavior.	Apply effective problem-solving, decision-making and refusal skills to make safe and healthy choices in various life situations. 4.PS3.A.a		
Behavior and Training: That’s Just My Thing!	Youth will research canine performance events and develop a training plan.			Apply research process to locate information in reference texts, electronic resources, interviews or visual sources and literary and informational texts. 3.W.3.A.d
Fitting and Showing: Top Dog	Youth will prepare for participation in a dog showmanship event.			Apply research process to locate information in reference texts, electronic resources, interviews or visual sources and literary and informational texts. 3.W.3.A.d
Fitting and Showing: Are Your Ethics Debatable?	Youth will debate if actions are ethical.	Reflect on personal roles in the community and identify responsibilities as a community member. 4.PS1.B.a		



Dog (Level 3)

Dog: Leading the Pack (Level 3)Source: 4H.MISSOURI.EDU; [Dog Projects](#)

Activity	Description	Guidance & Counseling	Health	Science	English Language Arts
Health and Care: Fido 911	Youth will take the vital signs for a dog.	Apply effective problem-solving, decision-making, and refusal skills to make safe and healthy choices in various life situations. 4.PS3.A.a			
Health and Care: All Systems Go!	Youth will create and label canine body systems.			Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and plant reproduction. 4.LS1.A.1	

Activity	Description	Guidance & Counseling	Health	Science	English Language Arts
Health and Care: To Breed or Not to Breed, That Is the Question	Youth will research reasons to breed and reasons not to breed a dog.				<p>Apply research process to locate information in reference texts, electronic resources, interviews or visuals sources and literary and informational texts.</p> <p>3.W.3.A.d</p>
Health and Care: Your Dog's Golden Years	Youth will observe and describe special needs and concerns of older dogs.				<p>Apply research process to locate information in reference texts, electronic resources, interviews or visuals sources and literary and informational texts.</p> <p>3.W.3.A.d</p> <p>Apply research process to take simple notes in own words and sort evidence into provided categories.</p> <p>3.W.3.A.f</p>

Activity	Description	Guidance & Counseling	Health	Science	English Language Arts
Behavior and Training: Planning Puppy Pre-School	Youth will plan and conduct a puppy training class.				Apply research process to locate information in reference texts, electronic resources, interviews or visuals sources and literary and informational texts. 3.W.3.A.d
Behavior and Training: K-9s and Youth Leading the Way	Youth will explain the role and impact of guide dogs.	Demonstrate respect for individuals within diverse groups. 5.PS2.B.a	Recognize situations where the perspective of others may differ from your own. 5.FS.2.B.a		
Behavior and Training: Is Your Dog a Good Citizen?	Youth will plan and conduct a Canine Good Citizen training.	Reflect on personal roles in the community and identify responsibilities as a community member. 4.PS1.B.a			
Dogs and Society: More than Best Friends	Youth will describe ways dogs serve people and society.				Apply research process to locate information in reference texts, electronic resources, interviews or visuals sources and literary and informational texts. 3.W.3.A.d

Activity	Description	Guidance & Counseling	Health	Science	English Language Arts
Dogs and Society: Going to the Dogs!	Youth will describe dog related careers and how to prepare for them.	Describe the contributions of a variety of jobs in the community. 5.CD7.C.a			Apply research process to locate information in reference texts, electronic resources, interviews or visuals sources and literary and informational texts. 3.W.3.A.d
Dogs and Society: Doggone Laws	Youth will research dog ownership laws.	Reflect on personal roles in the community and identify responsibilities as a community member. 4.PS1.B.a			Apply research process to locate information in reference texts, electronic resources, interviews or visuals sources and literary and informational texts. 3.W.3.A.d
Dogs and Society: Gifts You DON'T Want to Receive!	Youth will describe diseases transmissible between dogs and humans.		Identify that there are certain conditions and lifestyle behaviors that enhance both the growth and spread of pathogens. 4.RA.1.C.a		

Activity	Description	Guidance & Counseling	Health	Science	English Language Arts
Showing Leadership: Show What You Know!	Youth will sponsor a dog project skillathon.	Identify and develop personal planning strategies to manage individual, family, and school responsibilities. 6.PS1.B.a			
Showing Leadership: Coming Full Circle	Youth will organize and conduct a dog showmanship clinic.	Identify and develop personal planning strategies to manage individual, family, and school responsibilities. 6.PS1.B.a			Speak clearly, audibly, and to the point, using conventions of language when presenting individually or with a group by planning an appropriate presentation based on audience. 5.SL.4.A.b
Showing Leadership: Cherishing Memories	Youth will describe feelings involved with the death of a pet.		Assess situations that may require coping strategies and list assets that would help address these situations. 4.ME.4.C.a		

Activity	Description	Guidance & Counseling	Health	Science	English Language Arts
Showing Leadership: Tie to How!	Youth will plan and sponsor a dog fun day.	Identify and develop personal planning strategies to manage individual, family, and school responsibilities. 6.PS1.B.a			



Floriculture (Level 1)

Floriculture: Level A

Source: 4H.MISSOURI.EDU; [Horticulture](#)

Activity	Description	Fine Arts	Science	Guidance & Counseling
Let's Plan: Somewhere Over the Rainbow . . . Garden	Youth will design and plan a garden.			Apply time-management and organizational techniques necessary for assignments and/or task completion. 4.AD4.B.a
Let's Plan: A Cut Above the Rest	Youth will plan, organize and make decisions about their cutting flower garden.			Apply time-management and organizational techniques necessary for assignments and/or task completion. 4.AD4.B.a
Dig in: Diggin' In ... The Soil	Youth will lay out and plant their garden.			Apply time-management and organizational techniques necessary for assignments and/or task completion. 4.AD4.B.a
Dig in: Transplants for a Speedy Start	Youth will add transplants to their garden.			Apply time-management and organizational techniques necessary for assignments and/or task completion. 4.AD4.B.a
While you Wait: Blooming Seeds	Youth will use the scientific method to learn about parts of seeds and record data.		Use observations to describe patterns of what plants and animals (including humans) need to survive. 5.LS1.C.1	

Activity	Description	Fine Arts	Science	Guidance & Counseling
While you Wait: Flower Power	Youth will identify and diagram the parts of a flower.		Construct an argument that plants, and animals have internal and external structures that function to support survival, growth, behavior, and plant reproduction. 4.LS1.A.1	
Watch Out: Healthy Plant Parts	Youth will identify plant parts and the difference between sick and healthy-looking plants.		Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and plant reproduction. 4.LS1.A.1	
Watch Out: What's Buggin' You?	Youth will identify insects in their garden.			Apply time-management and organizational techniques necessary for assignments and/or task completion. 4.AD4.B.a
Now What: A Blooming Rainbow	Youth will create a simple flower arrangement.	Create personally satisfying artwork using a variety of artistic processes and materials. VA:Cr2A.3		
Now What: Blooms A-Round	Youth will create a round flower arrangement.	Create personally satisfying artwork using a variety of artistic processes and materials. VA:Cr2A.3		
Imagine That: An Introduction to Floriculture	Youth will learn about careers in floriculture.			Compare interests and strengths with those of workers in the local community. CD7.A.a.4
Imagine That: Plants Around the World	Youth will discover uses of plants in other cultures.			Apply time-management and organizational techniques necessary for assignments and/or task completion. 4.AD4.B.a



Floriculture (Level 2)

Floriculture: Level B

Source: 4H.MISSOURI.EDU; [Horticulture](#)

Activity	Description	Fine Arts	Science	Guidance & Counseling
Let's Plan: Try a Theme Garden	Youth will plan a theme garden, with blooms planned for throughout the season.			Apply time-management and organizational techniques necessary for assignments and/or task completion. 4.AD4.B.a
Happy House Plants	Youth will identify the needs of various house plants.		Use observations to describe patterns of what plants and animals (including humans) need to survive. 5.LS1.C.1	
Dig In: Start Your Own Seeds	Youth will start seeds indoors to grow their own seedlings.		Use observations to describe patterns of what plants and animals (including humans) need to survive. 5.LS1.C.1	
Add a House Plant to Your Home	Youth will choose a houseplant and record data about the plant's needs.		Use observations to describe patterns of what plants and animals (including humans) need to survive. 5.LS1.C.1	
While You Wait: Soil? Or Soilless Mix?	Youth will use the scientific method to conduct an experiment about the importance of soil for plants.		Support an argument that plants get the materials (i.e., carbon dioxide, water, sunlight) they need for growth chiefly from air and water. 5.LS1.C.1	

Activity	Description	Fine Arts	Science	Guidance & Counseling
Turning Light into New Leaves	Youth will conduct an experiment to illustrate the importance of photosynthesis.		Construct a scientific explanation based on evidence for the role of photosynthesis and cellular respiration in the cycling of matter and flow of energy into and out of organisms. 6-8.LS1.C.1	
Watch Out: Best Pest Control	Youth will utilize integrated pest management techniques to observe potential pest problems and solutions.		Obtain and combine information about ways individual communities use science ideas to protect the Earth's resources and environment. 5.ESS3.C.1	
Water: How Much Do Plants Need?	Youth will use the scientific method to conduct an experiment about the importance of water for plants.		Support an argument that plants get the materials (i.e. carbon dioxide, water, sunlight) they need for growth chiefly from air and water. 5.LS1.C.1	
Now What? All Dried Up, But Beautiful	Youth will learn to preserve flowers and plants by drying them.	Experiment and develop skills in multiple art-making techniques and approaches through practice. VA:Cr2A.5		
Landscaping Indoors	Youth will observe and practice creating interior-scapes.	Experiment and develop skills in multiple art-making techniques and approaches through practice. VA:Cr2A.5		
Imagine That: A Gift of Flowers	Youth will practice community service by creating a dried flower arrangement to give away to someone in their community.	Experiment and develop skills in multiple art-making techniques and approaches through practice. VA:Cr2A.5		
Sowing Seeds of Community Service	Youth will develop a sense of purpose and practice integrity and character through community service.			Recognize personal ways for the individual to contribute as a member of the school community. 8.PS1.C.a.



Floriculture (Level 3)

Floriculture: Level C

Source: 4H.MISSOURI.EDU; [Horticulture](#)

Activity	Description	Fine Arts	Guidance & Counseling	Science
Let's Plan: Garden in a Planter	Youth will design and plan a combination planter.	Develop criteria to guide making a work of art or design to meet an identified goal. VA:Cr1B.7		
Tools and Mechanics	Youth will learn to use the correct tools for creating fresh floral arrangements.	Demonstrate persistence in developing skills with various materials, methods, and approaches in making works of art and design. VA:Cr2A.7		
Everlasting Beauties	Youth will plan and design an "everlasting" garden.	Develop criteria to guide making a work of art or design to meet an identified goal. VA:Cr1B.7		
Dig In: Garden in a Bottle	Youth will plan and design a terrarium garden.	Demonstrate persistence in developing skills with various materials, methods, and approaches in making works of art and design. VA:Cr2A.7		
Basic Floral Design	Youth will utilize principles and elements to create a floral arrangement.	Demonstrate persistence in developing skills with various materials, methods, and approaches in making works of art and design. VA:Cr2A.7		
Preserving Flowers	Youth will collect and dry flowers.	Demonstrate persistence in developing skills with various materials, methods, and approaches in making		

Activity	Description	Fine Arts	Guidance & Counseling	Science
		works of art and design. VA:Cr2A.7		
While you Wait: Plants from Cuttings	Youth will experiment with different methods of vegetative propagation.			Use observations to describe patterns of what plants and animals (including humans) need to survive. 5.LS1.C.1
Elements of Design	Youth will utilize design elements to plan a variety of floral arrangements.	Develop criteria to guide making a work of art or design to meet an identified goal. VA:Cr1B.7		
Drying with Desiccants	Youth will experiment with various drying techniques.	Develop criteria to guide making a work of art or design to meet an identified goal. VA:Cr1B.7		
Watch Out: Checking Ph	Youth will create and use their own pH indicator paper.			Analyze and interpret data on the properties of substances before and after the substances interact to determine if a chemical reaction has occurred. 6-8.PS1.A.2
Keep 'Em Alive	Youth will experiment with various methods for preserving cut flowers.			Evaluate competing design solutions using a systematic process to determine how well they meet the criteria and constraints of a problem. 6-8.ETS1.B.1
More about Drying	Youth will compare methods to store dried and preserved plant materials.			Evaluate competing design solutions using a systematic process to determine how well they meet the criteria and constraints of a problem. 6-8.ETS1.B.1
Now What: European Planters	Youth will use design principles to create European containers.	Demonstrate persistence in developing skills with various materials, methods, and approaches in making works of art and design. VA:Cr2A.7		

Activity	Description	Fine Arts	Guidance & Counseling	Science
Wearable Flowers	Youth will learn how to wire and tape flowers to create corsages and boutonnières.	Demonstrate persistence in developing skills with various materials, methods, and approaches in making works of art and design. VA:Cr2A.7		
More Options for Everlasting Flowers	Youth will utilize preservation methods to create an everlasting arrangement.	Demonstrate persistence in developing skills with various materials, methods, and approaches in making works of art and design. VA:Cr2A.7		
Imagine That: Find a Future in Flowers	Youth will explore career options in floriculture.		Identify the training and education required for occupation in career paths of interest. 8.CD8.B.a	
Improving Your Community	Youth will research volunteer opportunities and plan and carry out a volunteering experience.		Identify and participate in activities that help the individual student become a contributing member of a school community. 9.PS1.C.a	
An Introduction to Horticultural Therapy	Youth will explore ways that horticulture may be used for medicinal or therapeutic effects.	Evaluate various coping skills for managing life changes or events. 5.PS3.C.a		



Floriculture (Level 3)

Floriculture: Level D

Source: 4H.MISSOURI.EDU; [Horticulture](#)

Activity	Description	Fine Arts	Guidance & Counseling	Science
Let's Plan: An All – Seasons Garden	Youth will research and plan an all-seasons garden.	Shape an artistic investigation of an aspect of present-day life using a contemporary practice of art or design. VA:Cr1B.8		
Tracking Expenses	Youth will plan and record costs for a fresh floral arrangement.		Review and build upon educational skills necessary to progress toward life-long learning goals. 9.AD4.A.a	
Planning a Floral Business	Youth will create a business plan for a floral business.		Review and build upon educational skills necessary to progress toward life-long learning goals. 9.AD4.A.a	
Dig In: Forcing Flowers	Youth will learn to control flowering.		Review and build upon educational skills necessary to progress toward life-long learning goals. 9.AD4.A.a	
Year – Round Flowers	Youth will learn where in the world various flowers are produced and how they are distributed to world markets.		Review and build upon educational skills necessary to progress toward life-long learning goals. 9.AD4.A.a	
Making a Marketing Plan	Youth will develop a marketing plan for a floriculture business.		Refine and utilize a portfolio which may be used for a variety of post-secondary opportunities. 11.CD9.B.a	

Activity	Description	Fine Arts	Guidance & Counseling	Science
While you Wait: Try Out Tissue Culture	Youth will understand flower improvement through tissue culture.			Provide evidence that Organisms (unicellular and multicellular) are made of cells that a single cell must carry out all of the basic functions of life. 6-8.LS1.A.1
Greenhouse Gardening	Youth will plan and build a greenhouse for use in floriculture.		Review and build upon educational skills necessary to progress toward life-long learning goals. 9.AD4.A.a	
The Big Event	Youth will plan flower arrangements for an event.	Develop criteria to guide making a work of art or design to meet an identified goal. VA:Cr1B.7	Review and build upon educational skills necessary to progress toward life-long learning goals. 9.AD4.A.a	
Now What: Designing by Season	Youth will understand timing of blooms to create arrangements for every season.	Develop criteria to guide making a work of art or design to meet an identified goal. VA:Cr1B.7	Review and build upon educational skills necessary to progress toward life-long learning goals. 9.AD4.A.a	
Contemporary Design	Youth will use contemporary floral design to create a floral display.	Choose from a range of materials and methods of traditional contemporary artistic practices to plan works of art and design. VA:Cr1B.11	Review and build upon educational skills necessary to progress toward life-long learning goals. 9.AD4.A.a	
Here Comes the Bride!	Youth will plan and create bridal floral designs.	Choose from a range of materials and methods of traditional contemporary artistic practices to plan works of art and design. VA:Cr1B.11	Review and build upon educational skills necessary to progress toward life-long learning goals. 9.AD4.A.a	



Gardening (Level 1)

Gardening: Level A: See Them Sprout (Grades 3-4)Source: 4H.MISSOURI.EDU; [Horticulture](#)

Activity	Description	Guidance & Counseling	Math	Science
Year 1				
First You Plan	Youth will plan a garden.		Measure the length of an object by selecting and using appropriate tools. 2.GM.B.4.	
Gardening Safety	Youth will learn to use garden tools safely.			
Seeds Up Close	Youth will understand seed germination.			Develop a model to compare and contrast observations on the life cycle of different plants and animals. 3.LS1.B.1
Plant It	Youth will plant a garden.			Develop a model to compare and contrast observations on the life cycle of different plants and animals. 3.LS1.B.1
Take Time for TLC	Youth will learn to take care of a garden.			Develop a model to compare and contrast observations on the life cycle of different plants and animals. 3.LS1.B.1
Is it Ready?	Youth will learn to harvest vegetables.			Develop a model to compare and contrast observations on the life cycle of different plants and animals. 3.LS1.B.1
Year 2				

Activity	Description	Guidance & Counseling	Math	Science
The Second-Year Garden	Youth will plan different types of gardens.			Construct an argument with evidence that in a particular ecosystem some Organisms -- based on structural adaptations or behaviors -- can survive well, some survive less well, and some cannot 3.LS3.C.1
Change It Up	Youth will learn to use different planting methods.			Construct an argument that plants, and animals have internal and external structures that function to support survival, growth, behavior, and plant reproduction. 4.LS1.A.1
Beyond the Stem	Youth will understand what plant parts do.			Obtain and combine information to describe climates in different regions of the world. 3.ESS3.B.1
Check Out the Veggies	Youth will identify various vegetables.			
Use It Up	Youth will utilize the garden harvest.			
Planting Your Career	Youth will learn about careers in a greenhouse.	Compare interests and strengths with those of workers in the local community. 4.CD.A.a.		



Gardening (Level 2)

Gardening: Level B: Let's Get Growing (Grades 5-6)Source: 4H.MISSOURI.EDU; [Horticulture](#)

Activity	Description	Health	Science	Guidance & Counseling
Year 1				
Plant a Transplant	Youth will plan to use transplants in a garden.			
Plan it Bigger	Youth will develop a planting calendar to start seeds indoors.			Apply time-management and organizational techniques necessary for assignments and/or task completion. 4.AD4.B.a.
On the Move	Youth will transplant plants into the garden.			
Starting from Scratch	Youth will start seeds indoors.		Use models to describe that energy stored in food (used for body repair, growth, motion, and to maintain body warmth) was once energy from the sun. 5.PS3.D.1	
A-Maze-ing Plants	Youth will understand plant responses.		Develop a model to describe the cycling of matter and flow of energy among living and nonliving parts of an ecosystem. 6-8.LS2.B.1.	
More Than Seeds	Youth will grow plants from plant parts.		Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved. 5.ETS1.C.1.	
Year 2				

Activity	Description	Health	Science	Guidance & Counseling
Wiggly Farm Acres	Youth will make a worm box.		Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment. 5.LS2.B.1	
Let it Rot	Youth will make compost and manure tea.		Construct a scientific explanation based on evidence for how environmental and genetic factors influence the growth of Organisms. 6-8.LS1.B.2	
One of a Kind	Youth will learn to judge vegetables.	Model healthy communication skills through exchange of information, questions, and ideas while recognizing the perspective of others. 6.FS.2.C.b.		
Too Much to Eat!	Youth will learn ways to deal with too many tomatoes.			
On Your Own	Youth will learn how to grow fruits and vegetables for cash.			Use current interests, strengths and limitations to guide individual career exploration. 6.CD7.A.a.
What's in a Name?	Youth will explore careers in horticulture.			Use current interests, strengths and limitations to guide individual career exploration. 6.CD7.A.a.



Gardening (Level 3)

Gardening: Level C: Take Your Pick (Grades 7-9)Source: 4H.MISSOURI.EDU; [Horticulture](#)

Activity	Description	Science	Guidance & Counseling
YEAR 1			
Broadcast Your Garden	Youth will understand broadcast planting.		Apply time-management and organizational techniques necessary for assignments and/or task completion. 4.AD4.B.a.
Stretch It Out	Youth will plan for succession planting.		Apply time-management and organizational techniques necessary for assignments and/or task completion. 4.AD4.B.a.
Don't forget herbs	Youth will plant herbs.		
What's Under Your Feet?	Youth will learn how to improve the soil.	Construct a scientific explanation based on evidence for how environmental and genetic factors influence the growth of Organisms. 6-8.LS1.B.2	
Keep On Planting	Youth will experiment with succession planting.	Construct a scientific explanation based on evidence for how environmental and genetic factors influence the growth of Organisms. 6-8.LS1.B.2	
Thyme for Planting	Youth will learn how to plant herbs.		
YEAR 2			
Acid Basics	Youth will understand the importance of PH in the soil.	Construct a scientific explanation based on evidence for how environmental and genetic factors influence the growth of Organisms. 6-8.LS1.B.2	
Getting Green	Youth will understand photosynthesis.	Construct a scientific explanation based on evidence for the role of photosynthesis and cellular respiration in the cycling of matter and flow of energy into and out of Organisms. 6-8.LS1.C.1	

Activity	Description	Science	Guidance & Counseling
Flower Power	Youth cross-pollinate flowers.	Construct an explanation for how characteristic animal behaviors as well as specialized plant structures affect the probability of successful reproduction of animals and plants respectively. 6-8.LS1.B.1	
Be a Bug Buster	Youth will identify insect damage.	Analyze and interpret data to provide evidence for the effects of resource availability on individual Organisms and populations of Organisms in an ecosystem. 6-8.LS2.C.1.	
When Animals are Pests	Youth will learn methods to deal with animal pests.	Evaluate the claims, evidence, and reasoning that the interactions in Ecosystems maintain relatively consistent populations of species while conditions remain stable but changing conditions may result in new ecosystem dynamics. 9-12.LS2.C.1	
What's With Weeds	Youth will learn to identify weeds.		Self-assess interpersonal skills that will help maintain quality relationships. 8.PS2.A.a.
YEAR 3			
Garden Cents	Youth will keep records of garden expenses.		Apply personal planning strategies to balance individual, family, and school responsibilities. 7.PS1.B.a.
Lead the Way	Youth will plan an event for younger youth.		Recognize personal ways for the individual to contribute as a member of the school community. 8.PS1.C.a.
Let's Preserve	Youth will learn various methods to preserve their harvest.		
Grow Your Career	Youth will explore horticulture-related careers.		Recognize occupations and careers as they relate to career paths, personal interests, and aptitudes. 7.CD7.B.a.
Are You a Teacher?	Youth will teach others about horticulture.		Recognize occupations and careers as they relate to career paths, personal interests, and aptitudes. 7.CD7.B.a.
Making Contacts	Youth will learn about jobs in the food industry.		Recognize occupations and careers as they relate to career paths, personal interests, and aptitudes. 7.CD7.B.a.



Gardening (Level 4)

Gardening: Level D: Growing Profits (Grades 10-12)

Source: 4H.MISSOURI.EDU; Horticulture

Activity	Description	English Language Arts	Personal Finance	Science	Guidance & Counseling
Year 1					
Tight On Space	Youth will prepare seeds for intensive gardening.				Identify and participate in activities that help the individual student become a contributing member of a global community. 10.PS1.C.a.
It's In - Between	Youth will plant for intercropping.				
All in a Row	Youth will use a variety of intercrop planting methods.				
Double Your Crops	Youth will plan to double crop.				
Double Your Fun	Youth will use double crop planting methods.				
Garden In Your Computer	Youth will use a computer program to plan a garden.				
Year 2					
The Air Up There	Youth will understand the effects of pollution on plants.			Design, evaluate, and/or refine solutions that positively impact the environment and biodiversity. 9-12.LS2.C.2	
Look Ma – No Soil	Youth will grow hydroponic plants.			Create or revise a model to test a solution to mitigate adverse impacts of human activity on biodiversity. 9-12.LS2.C.2	

Activity	Description	English Language Arts	Personal Finance	Science	Guidance & Counseling
Designer Genes	Youth will understand biotechnology as it relates to horticulture.			Communicate scientific information that common ancestry and biological evolution are supported by multiple lines of empirical evidence. 9-12.LS4.A.1	
Looking Closely	Youth will identify plant diseases.				
Talk About It	Youth will present information about fertilizers and nutrient deficiencies.	Plan and deliver appropriate presentations concisely and logically based on the task, audience, and purpose making strategic use of multimedia in presentations to enhance understanding of findings, reasoning, and evidence and to add interest. 9-10.SL.2.C.			
Taking Action	Youth will assess pesticide issues.				Identify and participate in activities that help the individual student become a contributing member of a global community. 10.PS1.C.a. Identify and utilize resources available that address personal safety issues. 9.PS3.B.a.
Year 3					
Profit or Loss	Youth will create a financial record for their horticulture projects.		Apply a rational decision-making process to satisfy wants. PF.I.1.B.		

Activity	Description	English Language Arts	Personal Finance	Science	Guidance & Counseling
			Differentiate between income and expenses. PF.III.1.A.		
Save the Best	Youth will learn methods to preserve the harvest.				
Growing a Business	Youth will learn how to start a plant business.		Explain how today's choices have future consequences. PF.I.2.A. Create a budget that includes savings goals, emergency funds, fixed expenses and variable expenses. PF.III.1.C		
All About You	Youth will complete a self-analysis profile.				Integrate career and educational information with knowledge of self and career clusters to identify occupations of interest. 9.CD8.A.a.
Research Plant Science	Youth will understand the role of a plant scientist.				Utilize a variety of resources to aid in career exploration and planning. 11.CD7.B.a.
Is It for Me?	Youth will investigate a career of interest.				Synthesize career and educational information gathered from a variety of sources. 11.CD8.A.a.



Landscape Design (Level 1)

Landscape Design: Grow a Beautiful Space (Level 1)

Source: 4H.MISSOURI.EDU; [Horticulture](#)

Activity	Description	English Language Arts	Fine Arts	Guidance & Counseling	Math
Getting Connected	Youth will identify landscape professionals in their community and explain what skills, experiences, and educational levels are required for careers in each profession.			Explain what workers do and need to know in various careers. 3.CD8.A.a	
Self- Reflection	Youth will reflect on their skills, weakness, and interests related to landscape careers.			Compare interests and strengths with those of workers in the local community. 4.CD7.A.a	
Perfectly Placed Plants	Youth will practice placing plants the correct distance apart to accommodate mature plants.				Estimate lengths using units of inches, feet, yards, centimeters and meters. 2.GM.B.6

Activity	Description	English Language Arts	Fine Arts	Guidance & Counseling	Math
Adding Cohesiveness	Youth will learn how to improve the cohesiveness of a landscape by identifying the placement and the number of plants to use in plant masses.		Brainstorm multiple approaches to a creative art or design problem. VA:Cr1A.4		
Observing Intersections	Youth will identify the number of different plants used to create layered landscapes and how different layering effects change the feeling of a space.		Brainstorm multiple approaches to a creative art or design problem. VA:Cr1A.4		
Garden Geometry	Youth will explore and identify a variety of landscapes.		Identify, describe, and visually document places and/or objects of personal significance. VA:Cr2C.5		
Pick Your Favorite	Youth will identify and describe their favorite	Speak clearly and to the point, using conventions of			

Activity	Description	English Language Arts	Fine Arts	Guidance & Counseling	Math
	landscape space.	language when presenting individually or with a group by contributing to discussion after listening to others' ideas, according to classroom expectations. 4.SL.3.A.b			
Follow the Lines	Youth will investigate unity through the use of lines.		Speculate about processes an artist uses to create a work of art. VA:Re7A.3		
"See" What You Know	Youth will analyze images and describe how rhythm is achieved.		Apply one set of criteria to evaluate more than one work of art. VA:Re9A.4		
Time for Some Sightseeing	Youth will observe different landscapes and identify how plants and elements are used to create movement.		Analyze components in visual imagery that convey messages. VA:Re7B.4		
Road Trip	Youth will observe different streetscapes and identify how a sense of rhythm is		Analyze components in visual imagery that convey messages. VA:Re7B.4		

Activity	Description	English Language Arts	Fine Arts	Guidance & Counseling	Math
	created in each.				
Sizing It Up	Youth will analyze six images and describe how scale is achieved.		Apply one set of criteria to evaluate more than one work of art. VA:Re9A.4		
Spacing It Out	Youth will explore and calculate the space needed for outdoor seating and other activities.				Apply the area and perimeter formulas for rectangles to solve problems. 4.GM.C.8
Recognize Balance	Youth will describe characteristics that create landscape balance.		Apply one set of criteria to evaluate more than one work of art. VA:Re9A.4		
Applying Balance	Youth will create balanced spaces using boxes and/or cans.		Brainstorm multiple approaches to a creative art or design problem. VA:Cr1A.4		
Sketch Like a Pro	Youth will draw balanced landscapes using simple symbols.		Brainstorm multiple approaches to a creative art or design problem. VA:Cr1A.4		

Activity	Description	English Language Arts	Fine Arts	Guidance & Counseling	Math
Getting to the Point	Youth will analyze six images and describe how emphasis is achieved.		Apply one set of criteria to evaluate more than one work of art. VA:Re9A.4		
Picking the Point	Youth will identify focal points in an established landscape.		Apply one set of criteria to evaluate more than one work of art. VA:Re9A.4		
Establish Landscape Analysis	Youth will prepare a written critique of an established landscape, based on each of the design principles.	Speak clearly and to the point, using conventions of language when presenting individually or with a group by planning an appropriate presentation based on audience. 5.SL.4.A.b	Develop and apply relevant criteria to evaluate a work of art. VA:Re9A.6		
You Be a Critic	Youth will recommend changes to a landscape to improve its characteristics and sense of space.	Speak clearly and to the point, using conventions of language when presenting individually or with a group by planning an appropriate presentation based on audience. 5.SL.4.A.b	Apply formal and conceptual vocabularies of art and design to view surroundings in new ways through artmaking. VA:Cn10A.5		

Activity	Description	English Language Arts	Fine Arts	Guidance & Counseling	Math
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"Mini"mize
Your
Landscape

Youth will complete sketches, make a choice and complete a design in a box and evaluate the finished product.

Demonstrate openness in trying new ideas materials methods, and approaches in making works of art and design.

VA:Cr2A.6

Fantasyscape

Youth will complete sketches, digital views and models of a landscape design.

Demonstrate openness in trying new ideas materials methods, and approaches in making works of art and design.

VA:Cr2A.6



Landscape Design (Level 2)

Landscape Design: Grow a Beautiful Space (Level 2)

Source: 4H.MISSOURI.EDU; [Horticulture](#)

Activity	Description	English Language Arts	Fine Arts	Math	Science
Exploring Growth Characteristics	Youth will research the classifications of a list of plants.	Apply research process to select relevant resources, literary and informational. 5.W.3.A.d			
Find Your Zone	Youth will become familiar with the USDA Plant Hardiness Zone Map.				
Causes and Effects of Shade Patterns	Youth will observe, take notes, and draw shade patterns.	Apply research process to follow guidelines for collecting and recording information. 5.W.3.A.c			
The 'What , Why, and How' of Wind	Youth will observe, take notes, and research wind patterns.	Apply research process to follow guidelines for collecting and recording information. 5.W.3.A.c			

Activity	Description	English Language Arts	Fine Arts	Math	Science
Identifying Texture and Testing pH	Youth will identify soil textures and understand the importance of different soils on plant growth.	Read, infer, and draw conclusions to: interpret details from procedural text to complete a task, solve a problem, or perform an action. 5.R.3.A.b			
Explore Your Environment	Youth will explore landscapes and identify use of plant size, type, location and purpose.	Apply research process to follow guidelines for collecting and recording information. 5.W.3.A.c			
Form a Picture	Youth will sketch mature trees and identify form and shape.		Apply formal and conceptual vocabularies of art and design to view surroundings in new ways through artmaking. VA:Cn10A.5		
Investigate Environmental Colors	Youth will explore landscapes and identify how color is used.		Apply one set of criteria to evaluate more than one work of art. VA:Re9A.4		

Activity	Description	English Language Arts	Fine Arts	Math	Science
Operation Observation	Youth will explore landscapes and identify how texture is used.		Apply one set of criteria to evaluate more than one work of art. VA:Re9A.4		
Unique Unity	Youth will explore how landscapes change over time and record data.	Apply research process to follow guidelines for collecting and recording information. 5.W.3.A.c			
Connect with Nature	Youth will be able to identify and describe how plants can be used aesthetically in a landscape.		Apply one set of criteria to evaluate more than one work of art. VA:Re9A.4		
Practical Decisions	Youth will identify different functional uses of plants in landscapes.	Apply research process to follow guidelines for collecting and recording information. 5.W.3.A.c	Apply one set of criteria to evaluate more than one work of art. VA:Re9A.4		
Design by the Eye	Youth will explore the use of outdoor structures and materials commonly used in landscapes.	Apply research process to follow guidelines for collecting and recording information. 5.W.3.A.c			

Activity	Description	English Language Arts	Fine Arts	Math	Science
The Path to a Better Landscape	Youth will walk through different landscapes to explore and evaluate path surfaces.	Apply research process to follow guidelines for collecting and recording information. 5.W.3.A.c			
Step It Up	Youth will walk on a variety of outdoor steps and record data.	Apply research process to follow guidelines for collecting and recording information. 5.W.3.A.c			
Wall to Wall Landscapes	Youth will observe a variety of wall characteristics and their uses in landscapes.		Apply one set of criteria to evaluate more than one work of art. VA:Re9A.4		
Outdoor Exploration	Youth will visit a nursery or garden center and record data about materials for a project.	Apply research process to follow guidelines for collecting and recording information. 5.W.3.A.c			Define a simple design problem reflecting a need or a want that includes a specified criteria for success and constraints on materials, time, or cost. 5.ETS1.A.1

Activity	Description	English Language Arts	Fine Arts	Math	Science
You Be the Spotlight	Youth will identify locations within a landscape that would benefit from landscape lighting.				Define a simple design problem reflecting a need or a want that includes a specified criteria for success and constraints on materials, time, or cost. 5.ETS1.A.1
Landscape Enhancers	Youth will observe how landscape enhancers are integrated into landscapes.				
Sizing Things UP	Youth will go to a nursery or garden center and observe different types of landscape amenities.	Apply research process to follow guidelines for collecting and recording information. 5.W.3.A.c			Define a simple design problem reflecting a need or a want that includes a specified criteria for success and constraints on materials, time, or cost. 5.ETS1.A.1
Adding It All Up	Youth will calculate plants needed to fill a landscape.			Multiply multi- digit whole numbers and decimals to the hundredths place and justify the solution. 5.NBT.A.7	

Activity	Description	English Language Arts	Fine Arts	Math	Science
Landscape Renovation	Youth will identify a landscape in need of renovation and make design recommendations.		Apply formal and conceptual vocabularies of art and design to view surroundings in new ways through artmaking. VA:Cn10A.5		Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem. 5.ETS1.B.1
Let It Grow!	Youth will conduct an experiment with plants to determine growth related to sunlight.	Apply research process to follow guidelines for collecting and recording information. 5.W.3.A.c			Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved. 5.ETS1.C.1
A Plethora of Plants	Youth will create a plant portfolio.	Apply research process to follow guidelines for collecting and recording information. 5.W.3.A.c			Define a simple design problem reflecting a need or a want that includes a specified criteria for success and constraints on materials, time, or cost. 5.ETS1.A.1

Activity	Description	English Language Arts	Fine Arts	Math	Science
Estimating Dreams	Youth will develop a scaled plan drawing of a landscape and calculate the cost.			Multiply multi-digit whole numbers and decimals to the hundredths place and justify the solution. 5.NBT.A.7	Define a simple design problem reflecting a need or a want that includes a specified criteria for success and constraints on materials, time, or cost. 5.ETS1.A.1
Go Green Landscape	Youth will explore and design solutions for stormwater management.				Define a simple design problem reflecting a need or a want that includes a specified criteria for success and constraints on materials, time, or cost. 5.ETS1.A.1



Landscape Design (Level 3)

Landscape Design: Grow a Beautiful Space (Level 3)

Source: 4H.MISSOURI.EDU; [Horticulture](#)

Activity	Description	English Language Arts	Fine Arts	Guidance & Counseling
Geometric Drawings	Youth will experiment with a variety of geometric drawing tools.		Demonstrate openness in trying new ideas, materials, methods, and approaches in making works of art and design. VA:Cr2A.6	
Zoom the Map	Youth will investigate the importance of selecting the appropriate scale.		Demonstrate openness in trying new ideas, materials, methods, and approaches in making works of art and design. VA:Cr2A.6	
Creating Consistency	Youth will develop and practice their own style for lettering and symbols.		Demonstrate persistence in developing skills with various materials, methods, and approaches in creating works of art or design. VA:Cr2A.7	Use current interests, strengths, and limitations to guide individual career exploration. 6.CD7.A.a

Activity	Description	English Language Arts	Fine Arts	Guidance & Counseling
Deciphering Drawings	Youth will develop and practice their own symbols for use in landscape drawings.		Demonstrate persistence in developing skills with various materials, methods, and approaches in creating works of art or design. VA:Cr2A.7	Use current interests, strengths, and limitations to guide individual career exploration. 6.CD7.A.a
Observing the Essentials	Youth will observe different sheet layouts and identify effective title blocks.	Read and comprehend informational text independently and proficiently. 6.R.3.D.a		Use current interests, strengths, and limitations to guide individual career exploration. 6.CD7.A.a
Measuring Methods	Youth will take site measurements and create a base map of a small landscape.			Use current interests, strengths, and limitations to guide individual career exploration. 6.CD7.A.a
Labeling the Symbols	Youth will explore and analyze the symbols commonly used to identify site conditions on site inventory and analysis drawings.	Interpret visual elements of a text including those from different media and draw conclusions from them (when applicable). 6.R.1.C.a		Use current interests, strengths, and limitations to guide individual career exploration. 6.CD7.A.a
Thinking about Physical & Environmental Factors	Youth will select a small portion of a landscape and develop an analysis of existing conditions.			Use current interests, strengths, and limitations to guide individual career exploration. 6.CD7.A.a

Activity	Description	English Language Arts	Fine Arts	Guidance & Counseling
Understanding the Client	Youth will develop a list of questions and categories for an interview to use before starting a design.			Use current interests, strengths, and limitations to guide individual career exploration. 6.CD7.A.a
Designing Your Look	Youth will read and analyze a list of design programs and concept statements.	Explain how an author's point of view or purpose is conveyed in a text. 6.R.2.B.a		Use current interests, strengths, and limitations to guide individual career exploration. 6.CD7.A.a
Lay Out Your Beautiful Space	Youth will analyze and investigate bubble, functional, and concept diagrams.	Interpret visual elements of a text including those from different media and draw conclusions from them (when applicable). 6.R.1.C.a		Use current interests, strengths, and limitations to guide individual career exploration. 6.CD7.A.a
Creating a Form Composition	Youth will analyze form compositions.	Interpret visual elements of a text including those from different media and draw conclusions from them (when applicable). 6.R.1.C.a		Use current interests, strengths, and limitations to guide individual career exploration. 6.CD7.A.a

Activity	Description	English Language Arts	Fine Arts	Guidance & Counseling
You Be the Designer	Youth will use previous work to create a preliminary drawing.		Document early stages of the creative process visually and/or verbally in traditional or new media. VA:CR1A.8	Use current interests, strengths, and limitations to guide individual career exploration. 6.CD7.A.a
Now It's Your Turn	Youth will evaluate a final design using multiple categories.	Interpret visual elements of a text including those from different media and draw conclusions from them (when applicable). 6.R.1.C.a	Develop and apply relevant criteria to evaluate a work of art. VA:Re9A.6	
Web exploration	Youth will research different types of landscape drawings and analyze the information included in these drawings.	Interpret visual elements of a text including those from different media and draw conclusions from them (when applicable). 6.R.1.C.a	Develop and apply relevant criteria to evaluate a work of art. VA:Re9A.6	
Professional Interaction	Youth will discuss client communication with a landscape designer.			Identify the training and education required for occupations in career paths of interest. 8.CD8.B.a

Activity	Description	English Language Arts	Fine Arts	Guidance & Counseling
Community Landscape	Youth will design and construct landscape improvements for a local community space.		Apply relevant criteria to examine, reflect on, and plan revisions for a work of art or design in progress. VA:CR3A.8	Analyze and evaluate school and community contributions as they relate to one's career and educational plan. 9.CD7.C.a
Renovate the Outdoors	Youth will select a space to redesign, develop a scaled map, evaluate physical properties, interview the people who use the space, and complete a final design drawing.		Design or redesign objects, places or systems that meet the identified needs of diverse users. VA:Cr2A.6	Analyze and evaluate school and community contributions as they relate to one's career and educational plan. 9.CD7.C.a
Sprouting Career Roots	Youth will shadow a landscape designer, create a small business plan, and create and conduct a marketing presentation.	Plan and deliver appropriate presentations based on the task, audience, and purpose including multimedia components in presentations to clarify claims findings and ideas. 6.SL2.A.a		Integrate career and educational information with knowledge of self and career clusters to identify occupations of interest. 9.CD8.A.a

Activity	Description	English Language Arts	Fine Arts	Guidance & Counseling
The Role of Recycled Materials	Youth will research green landscaping and think about how to incorporate these concepts into a landscape project.		Develop criteria to guide making a work of art or design to meet an identified goal. VA:Cr1B.7	
Design a Diorama	Youth will develop a landscape design for an existing structure and create a diorama from a sketch.		Design or redesign objects, places or systems that meet the identified needs of diverse users. VA:Cr2A.6	Analyze and evaluate school and community contributions as they relate to one's career and educational plan. 9.CD7.C.a



Guinea Pigs (Cavies)

Guinea Pigs: Cavy Project Leader Guide

Source: 4H.MISSOURI.EDU; [Pets Project](#)

Activity	Description	English Language Arts	Science	Guidance & Counseling
Promotes Cavy Well-Being: Understanding Quality	Youth will discuss the quality of cavy events.	Apply research process to locate information in reference texts, electronic resources, interviews, or visual sources and literary and informational texts. 3.W.3.A.d		
Promotes Cavy Well-Being: Humane Treatment	Youth will participate in, and observe role playing for humane and inhumane treatment of cavies.	Apply research process to locate information in reference texts, electronic resources, interviews, or visual sources and literary and informational texts. 3.W.3.A.d		
Promotes Cavy Well-Being: Cavy Stress, If You're Healthy and You Know It	Youth will practice observation and analysis to recognize the characteristics of normal, healthy cavies.	Apply research process to take simple notes in own words and sort evidence into provided categories or organizer. 3.W.3.A.f		

Activity	Description	English Language Arts	Science	Guidance & Counseling
Promotes Cavy Well-Being: Stress and Animal Well-Being	Youth will practice observation and analysis to recognize factors that could cause stress.	Apply research process to take simple notes in own words and sort evidence into provided categories or organizer. 3.W.3.A.f		
Basic Housing: Space Requirements	Youth will participate in role playing to recognize the importance of adequate space.			
Basic Housing: Bedding and Sanitation	Youth will conduct an experiment to compare different types of bedding.		Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem. 3.ETS1.B.1	
Nutrients, Feeding, and Water: Water Quality	Youth will compare the taste of water with different additives and then with lemon.		Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem. 3.ETS1.B.1	
Nutrients, Feeding, and Water: Food Labels	Youth will read and compare the information in food labels.	Read, infer, and draw conclusions to interpret and explain factual information presented graphically. 4.R.3.A.c		

Activity	Description	English Language Arts	Science	Guidance & Counseling
Educating the Public: Educational Displays	Youth will plan, organize, and create a public display of information about cavies.	Apply research process to present and evaluate the information in a report or annotated display, using previously established teacher/student criteria. 3.W.3.A.i		
Educating the Public: Activists and Talking to the News Media	Youth will participate in a role play to recognize various ideas and opinions.			Demonstrate respect for others' personal opinions and ideas. 4.PS2.A.a

Missouri 4-H

**Missouri Learning Standards
Alignment Guide for 4-H Curriculum**



Extension
University of Missouri



Pets (Level 1)

Pets: Pet Pals (Level 1)

Source: 4H.MISSOURI.EDU; [Pets Projects](#)

Activity	Description	English Language Arts	Social Science	Guidance & Counseling	Fine Arts
My Favorite Pet	Youth will gather and share information about a pet.	Gather evidence from available sources, literary and informational. 2.W.3.A.d.			
		Record basic information from literary and informational texts in simple visual format. 2.W.3.A.e.			
Your Opinion Please	Youth will develop questions and interview a pet owner.	Create an individual question about a topic. 2.W.3.A.b.			
		Use own question to find information on a topic. 2.W.3.A.c.			
		Locate information in reference texts, electronic resources, interviews, or visual sources and literary and informational texts. 3.W.3.A.d			

Activity	Description	English Language Arts	Social Science	Guidance & Counseling	Fine Arts
Family Time	Youth will lead a family discussion about the best type of pet for their family.			Apply the steps of solving problems and conflicts with others. 3.PS2.C.a	
Hang Time	Youth will observe a pet's behavior and decide three things they can do with the pet.	Take simple notes in own words and sort evidence into provided categories or organizer. 3.W.3.A.f			
Fur, Fins or Feathers?	Youth will complete a crossword puzzle and match pet body parts with their labels.				
Roots	Youth will learn about various pets and identify their country of origin.		Name and locate regions of the world. 2.EG.5B.b		
Pet Poses	Youth will create an artistic expression of a pet ad include it's natural or current environment.				Make art or design with various materials and tools to explore personal interests, questions, and curiosity. 2.VA:Cr1B.

Activity	Description	English Language Arts	Social Science	Guidance & Counseling	Fine Arts
Daily Diary	Youth will observe a pet and write observations in a diary.	Take simple notes in own words and sort evidence into provided categories or organizer. 3.W.3.A.f			
Chirp, Hiss, Squeak ...	Youth will record all the ways a pet communicates and complete a crossword puzzle to identify various ways pets communicate.				
TLC	Youth will help others learn how to properly handle a pet.	Record basic information from literary and informational texts in simple visual format. 2.W.3.A.e.			
Safe and Secure	Youth will determine possible safety hazards for a pet.	Take simple notes in own words and sort evidence into provided categories or organizer. 3.W.3.A.f			
Pet Palaces	Youth will design a space that meets the needs of a pet.				
Home Alone	Youth will write an instruction guide for a pet sitter.	Record basic information from literary and informational texts in simple visual format. 2.W.3.A.e.			



Pets (Level 2)

Pets: Scurrying Ahead (Level 2)Source: 4H.MISSOURI.EDU; [Pets Projects](#)

Activity	Description	English Language Arts	Science	Guidance & Counseling
True or False?	Youth will lead a discussion about true/false statements about a variety of pets.			Demonstrate respect for others' personal opinions and ideas. 4.PS2.A.a
Once Upon a Time	Youth will write a short story about a pet.	Write fiction or non-fiction narratives and poems that establish a setting and situation/topic and introduce a narrator and/or characters. 4.W.2.C.a		
Play Time	Youth will observe a pet's activities and create an appropriate toy.		Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost. 4.ETS1.A.1	

Activity	Description	English Language Arts	Science	Guidance & Counseling
Scene 2 Take 2	Youth will write, direct and present a 15-second commercial on some aspect of pet ownership or care.	Follow a writing process to plan a first draft by: using a simple prewriting strategy when given the purpose and the audience. 3.W.1.A.a.		
Pet Cent\$	Youth will create a shopping list and compare prices for items needed for a pet.	Apply research process to locate information in reference texts, electronic resources, interviews, or visual sources and literary and informational texts. 3.W.3.A.d		
The Price Is Right	Youth will compare the cost of necessary pet supplies from two different sources.	Apply research process to locate information in reference texts, electronic resources, interviews, or visual sources and literary and informational texts. 3.W.3.A.d		
Pet Store Search	Youth will plan and conduct a scavenger hunt in a store that sells pet products.			

Activity	Description	English Language Arts	Science	Guidance & Counseling
Show Time	Youth will make a plan for showing a pet to the public and use the plan to prepare.			Apply time-management and organizational techniques necessary for assignments and/or task completion. 4.AD4.A.a
Bottomless Pit	Youth will identify and label the parts of the digestive system of a pet.		Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and plant reproduction. 4.LS1.A.1	
Chow Time	Youth will examine a pet food label and plan a pet diet.	Read, infer, and draw conclusions to interpret and explain factual information presented graphically. 4.R.3.A.c		
Fit-n-Trim	Youth will explore a pet's diet.	Read, infer, and draw conclusions to interpret and explain factual information presented graphically. 4.R.3.A.c		
What's Up Doc?	Youth will examine a pet and note characteristics of a healthy and unhealthy pet.			

Activity	Description	English Language Arts	Science	Guidance & Counseling
Keeping Healthy	Youth will decide the species and course of action for a list of pet diseases or symptoms and research additional diseases and symptoms.	Apply research process to locate information in reference texts, electronic resources, interviews, or visual sources and literary and informational texts. 3.W.3.A.d		
Bones, Bones, Bones	Youth will complete a crossword puzzle and organize an identification activity for the bone structure of pets.		Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and plant reproduction. 4.LS1.A.1	



Pets (Level 3)

Pets: Scaling the Heights (Level 3)Source: 4H.MISSOURI.EDU; [Pets Projects](#)

Activity	Description	English Language Arts	Fine Arts	Science	Guidance & Counseling
Designer Genes	Youth will Complete a genetic chart to determine the color of mouse offspring.				
To Breed or Not to Breed?	Youth will make a decision to breed or not breed a pet based on cost, experience and other considerations.				Apply effective problem- solving, decision- making and refusal skills to make safe and healthy choices in various life situations. 4.PS3.A.a

Activity	Description	English Language Arts	Fine Arts	Science	Guidance & Counseling
Are You Sure?	Youth will identify the parts of male and female rodent's reproductive systems.			Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and plant reproduction.	
				4.LS1.A.1	
Special Care	Youth will create a story board about taking care of newborn pets.	Follow a writing process to plan a first draft by using a prewriting strategy.	Identify, describe and visually document places and/or objects of personal significance.		
		5.W.1.A.d	5.VA: Cr2C		
Pets-N-Us	Youth will interview small business owners and develop a plan for organizing a business.				Use current interests, strengths, and limitations to guide individual career exploration.
					6.CD7.A.a
The Right Fit	Youth will complete a self-analysis and a career profile.				Recognize occupations and careers as they relate to career paths, personal interests, and aptitudes.
					7.CD7.B.a

Activity	Description	English Language Arts	Fine Arts	Science	Guidance & Counseling
Go Ahead, Try	Youth will use the experiential learning process to design and teach a lesson about pets.	Write informative/explanatory texts that use an organizational format that suits the topic. 5.W.2.B.c			Apply time-management and organizational techniques necessary for assignments and/or task completion. 4.AD4.B.a
Let's Explore Together	Youth will select a younger person, create a plan, and help him or her explore the pet project.	Follow rules for collegial discussions and decision-making, track progress toward specific goals and deadlines, and define individual roles as needed. 6.SL.1.A.a			Develop and practice a self-management system to promote academic success. 6.AD4.B.a
Cheese Please	Youth will photograph a pet to tell a story through pictures.		Identify, describe and visually document places and/or objects of personal significance. 5.VA: Cr2C		

Activity	Description	English Language Arts	Fine Arts	Science	Guidance & Counseling
Look to the Future	Youth will develop questions and interview two people in animal-related careers.				Utilize a variety of resources to obtain information about the levels of training and education required for various occupations. 7.CD8.B.a
The Perfect Pet	Youth will interview a friend in order to help him or her make a decision about pet ownership.	Follow rules for collegial discussions and decision-making, track progress toward specific goals and deadlines, and define individual roles as needed. 6.SL.1.A.a			
Enviro-Pet	Youth will Explore and record the impact of products on health and environment and develop a family “consumer code”.				Identify behaviors that compromise personal safety of self and others. 6.PS3.B.a

Activity	Description	English Language Arts	Fine Arts	Science	Guidance & Counseling
Let's Debate	Youth will plan and participate in a structured debate about the roles of animals in society.	Follow rules for collegial discussions and decision-making, track progress toward specific goals and deadlines, and define individual roles as needed. 6.SL.1.A.a		Obtain and combine information about ways individual communities use science ideas to protect the Earth's resources and environment. 5.ESS3.C.1	
Taxing Taxonomy	Youth will classify animals using the seven levels of taxonomy.				

Leadership and Personal Development

Missouri 4-H Projects

We are working hard to get all the project curriculums aligned to Missouri State Learning Standards. This document will be updated frequently. Here's what is available so far:

Projects with MLS aligned in this manual:

- 4-H Clover Kids Activity Guide
- Building Public Speaking Skills with Clover Kids
- Career Pathways
 - Youth Futures SPIN Club Leader's Guide
- Civic Engagement
 - Civic Engagement
 - Public Adventures
- Leadership
 - Step Up to Leadership: Mentor Guide for Grades K-5 (level 1)
 - Cracking the Code to Leadership (level 2—3)

Projects available (MSL alignment coming soon):

- Career Pathways
 - Career Explorations
- Communications (levels 1--3)
- Entrepreneurship (levels 1--3)
- Global Education
- Consumer Savvy (levels 1--3)
- Financial Literacy (levels 1--3)



4-H Clover Kids

Clover Kids: Activity Guide

Source: 4H.MISSOURI.EDU; [4-H Clover Kids](#)

Activity	Description	English Language Arts	Math	Science	Social Studies
Pledge Activity	Clover Kids will practice saying the 4-H pledge, identify what the four H's stand for, and discuss the 4-H motto and colors.				Identify the flag as a symbol of our nation. Recite the Pledge of Allegiance. K.PC.1.F.a.b
Exploration & Experimentation	Clover Kids will practice and explore a variety of different skills such as reading a recipe, following step-by-step directions, measuring liquid and dry ingredients, mixing ingredients together, and clean up skills when finished.	Continuing a conversation through multiple exchanges. K.SL.1.A.b. Following one-step instructions, according to classroom expectations. K.SL.1.A.c.			
The Parts of a Flower	Clover Kids will dissect a flower and identify the parts.	Following one-step instructions, according to classroom expectations. K.SL.1.A.c			
Pounding Flowers & Herbs	Clover Kids will pound flowers and herbs creating a colorful and fragrant collage.	Following one-step instructions, according to classroom expectations. K.SL.1.A.c.			
Seed Dissection	Clover Kids will dissect a seed and identify its three basic parts.	Identifying and sorting pictures of objects into conceptual categories K.R.1.B.a.		Make qualitative observations of the physical properties of objects (i.e., size, shape, color, mass). K.PS1.A.1	

Activity	Description	English Language Arts	Math	Science	Social Studies
Seeds We Eat	Clover Kids will prepare, and taste roasted pumpkin seeds.	Following one-step instructions, according to classroom expectations. K.SL.1.A.c.			
The Plants We Eat	Clover Kids will classify the plants (and parts of plants) we eat.	Identifying and sorting pictures of objects into conceptual categories. K.R.1.B.a.		Make qualitative observations of the physical properties of objects (i.e., size, shape, color, mass). K.PS1.A.1	
Bird Identification	Clover Kids will be introduced to birds found in Missouri.	Use words that are related to the topic K.W.2.B.b			
Pinecone Birdfeeder	Clover Kids will create a bird feeder using a pinecone.	Following one-step instructions, according to classroom expectations. K.SL.1.A.c.			
Bug Bingo	Clover Kids will explore entomology through a game of bingo.	Use words that are related to the topic K.W.2.B.b			
Bug Parts	Clover Kids will identify the different parts of an insect.	Identifying and sorting pictures of objects into conceptual categories. K.R.1.B.a.		Make qualitative observations of the physical properties of objects (i.e., size, shape, color, mass). K.PS1.A.1	
Bug Sorting	Clover Kids will sort bugs according to characteristics.	Identifying and sorting pictures of objects into conceptual categories. K.R.1.B.a.		Make qualitative observations of the physical properties of objects (i.e., size, shape, color, mass). K.PS1.A.1	
How Old are Trees?	Clover Kids will calculate the age of a tree.	Following one-step instructions, according to classroom expectations. K.SL.1.A.c.	Count forward beginning from a given number between 1 and 20. K.NS.1.A.a.		

Activity	Description	English Language Arts	Math	Science	Social Studies
Make a Leaf Track	Clover Kids will use a leaf to make a track (print) in salt dough.	Following one-step instructions, according to classroom expectations. K.SL.1.A.c.			
Tree Leaf Identification	Clover Kids will identify leaves collected from different species of trees.	Identifying and sorting pictures of objects into conceptual categories. K.R.1.B.a. Use words that are related to the topic K.W.2.B.b		Take qualitative observations of the physical properties of objects (i.e., size, shape, color, mass). K.PS1.A.1	



4-H Clover Kids

Clover Kids: Building Public Speaking Skills with Clover KidsSource: 4H.MISSOURI.EDU; [4-H Clover Kids](#)

Activity	Description	English Language Arts
Draw and Share	Clover Kids will create a drawing and share it with an audience.	<p>Develop and apply effective listening skills and strategies in formal and informal settings by following classroom listening rules. K-1.SL.1.A.a</p> <p>Speak clearly using conventions of language when presenting individually or with a group by taking turns speaking. According to classroom expectations. K.SL.3.A.a</p> <p>Speak clearly and audibly, using conventions of language when presenting individually or with a group by describing personal experiences using a prop, picture or other visual aid. K.SL.4.A.a</p>
Using Your Voice: Leading the 4-H Pledge	Clover Kids will lead the 4-H Pledge with an audience.	<p>Develop and apply effective listening skills and strategies in formal and informal settings by following classroom listening rules. K-1.SL.1.A.a</p> <p>Speak clearly using conventions of language when presenting individually or with a group by taking turns speaking. According to classroom expectations. K.SL.3.A.a</p> <p>Speak clearly and audibly, using conventions of language when presenting individually or with a group by describing personal experiences using a prop, picture or other visual aid. K.SL.4.A.a</p>
Using Your Voice: Leading the American Pledge	Clover Kids will lead the American Pledge with an audience.	<p>Develop and apply effective listening skills and strategies in formal and informal settings by following classroom listening rules. K-1.SL.1.A.a</p> <p>Speak clearly using conventions of language when presenting individually or with a group by taking turns speaking. According to classroom expectations. K.SL.3.A.a</p> <p>Speak clearly and audibly, using conventions of language when presenting individually or with a group by describing personal experiences using a prop, picture or other visual aid. K.SL.4.A.a</p>
Using Your Voice: Leading the 4-H Motto	Clover Kids will lead the 4-H Motto with an audience.	<p>Develop and apply effective listening skills and strategies in formal and informal settings by following classroom listening rules. K-1.SL.1.A.a</p> <p>Speak clearly using conventions of language when presenting individually or with a group by taking turns speaking. According to classroom expectations. K.SL.3.A.a</p> <p>Speak clearly and audibly, using conventions of language when presenting individually or with a group by describing personal experiences using a prop, picture or other visual aid. K.SL.4.A.a</p>

Activity	Description	English Language Arts
Using Your Voice: How to Vote	Clover Kids will learn and practice the process of voting using parliamentary procedure basics.	Develop and apply effective listening skills and strategies in formal and informal settings by following classroom listening rules. K-1.SL.1.A.a Speak clearly using conventions of language when presenting individually or with a group by taking turns speaking. According to classroom expectations. K.SL.3.A.a
Project Show and Tell	Clover Kids will share and explain a project they have created to an audience.	Develop and apply effective listening skills and strategies in formal and informal settings by following classroom listening rules. K-1.SL.1.A.a Speak clearly using conventions of language when presenting individually or with a group by taking turns speaking. According to classroom expectations. K.SL.3.A.a Speak clearly and audibly, using conventions of language when presenting individually or with a group by describing personal experiences using a prop, picture or other visual aid. K.SL.4.A.a
Babbling Builders – can you talk and build at the same time?	Clover Kids will share about what they are building to an audience, as they are building.	Speak clearly using conventions of language when presenting individually or with a group by taking turns speaking. According to classroom expectations. K.SL.3.A.a Speak clearly and audibly, using conventions of language when presenting individually or with a group by describing personal experiences using a prop, picture or other visual aid. K.SL.4.A.a
My Year in Review	Clover Kids will create a video that showcases what they have learned.	Speak clearly using conventions of language when presenting individually or with a group by taking turns speaking. According to classroom expectations. K.SL.3.A.a Speak clearly and audibly, using conventions of language when presenting individually or with a group by describing personal experiences using a prop, picture or other visual aid. K.SL.4.A.a



Public Adventures

Civic Engagement: Public Adventures Guide's Handbook

Source: 4H.MISSOURI.EDU; [Civic Engagement](#)

Activity	Description	Social Studies	Guidance & Counseling
Rules of the Road	Youth will learn about citizenship and group decision making.	<p>Give examples of being an active and informed citizen in your classroom or community. 1.PC.1.D.a.</p> <p>Describe why groups need to make decisions and how those decisions are made in families and classrooms. K.GS.2.C.a.</p>	<p>Identify personal roles in the community. 2.PS.1.B.a.</p> <p>Identify the steps of solving problems and conflicts with others. 2.PS.2.C.a.</p>
First Steps Out the Door	Youth will identify "public" and "private," institutions, map the community, and decide on an issue to address.	<p>Read and construct maps with title and key. 2.EG.5.A.a.</p> <p>Identify physical characteristics of your community. 1.EG.5.C.a.</p> <p>Describe human characteristics of your community. 1.EG.5.C.b.</p>	
Choose Your Destination	Youth groups will define a goal, decide on a project and write a mission statement.	<p>Analyze how being an active and informed citizen makes a difference in your community. 2.PC.1.D.a.</p>	
Meet the "Locals"	Youth groups will identify their "stakeholders" and prepare for group interviews.	<p>Describe the character traits of role models within your community. 1.PC.1.E.a.</p> <p>Describe human characteristics of your community. 1.EG.5.C.b.</p>	<p>Identify personal roles in the community. 2.PS.1.B.a.</p>

Activity	Description	Social Studies	Guidance & Counseling
Plan Your Itinerary	Youth groups will create an action plan and prepare to put their plan into action.		Reflect on personal roles in the community and identify responsibilities as a community member. 4.PS.1.B.a.
Are We There Yet?	Youth groups will put their plan into action, keep track of progress, and record and evaluate progress.	Analyze how being an active and informed citizen makes a difference in your community. 2.PC.1.D.a.	Reflect on personal roles in the community and identify responsibilities as a community member. 4.PS.1.B.a.
Show Off Your Souvenirs	Youth groups will evaluate their progress, celebrate their accomplishments, plan next steps and share their story.	Analyze how being an active and informed citizen makes a difference in your community. 2.PC.1.D.a.	Reflect on personal roles in the community and identify responsibilities as a community member. 4.PS.1.B.a.



Civic Engagement

Civic Engagement: 4-H Civic Engagement Skills Guide

Source: 4H.MISSOURI.EDU; [Civic Engagement](#)

Activity	Description	English Language Arts	Social Studies
Flag Etiquette	Youth learn the basics of flag set up for meetings (and flag etiquette generally).		Identify the flag as a symbol of our nation. K.PC.1.F.a.
Writing a Thank You Note	Youth learn the correct method for writing and sending a personalized thank you note.	Follow a writing process to plan a first draft by: using a simple prewriting strategy when give the purpose and thee intended audience. 3.W.1.A.a.	
Writing to a Legislator	Youth learn to communicate with lawmakers, and how being an informed citizen and communicating with elected officials is important in a representative democracy.	Follow a writing process to plan a first draft by: using a simple prewriting strategy when give the purpose and thee intended audience. 3.W.1.A.a.	
Naming Levels of Government	Youth learn the three levels of government and how they relate to 4-H.		Distinguish the responsibilities and powers of government officials at various levels and branches of government in authoritative decision making. 2.GS.2.C.a.
Missouri State Symbols	Youth learn about the official state symbols of Missouri, which make our state so great!		Recognize and explain the significance of the Great Seal of Missouri and other symbols of our state. 3.PC.1.F.b.
Community Assets and Opportunities	Youth learn to discover their community, see how their 4-H projects and service-learning help build and enhance community assets, and learn where to look for new community partners.		Describe cultural characteristics of your school and community. 1.RI.6.A.a.

Practicing Civility	Youth are introduced to civility, or how to speak and act with respect toward others, even when they disagree or have conflicts – a skill very needed in today's world.		Propose peaceful resolutions of disputes in the classroom and on the playground. 1.RI.6.B.a



Global Education

Global Education: Seeing i2iSource: Missouri 4-H Website

Activity	Description	English Language Arts	Guidance & Counseling	Social Studies
1. Getting to Know My "I": Self Awareness 1.1. Let Each Other Shine	Youth will realize their unique background and identify what makes them unique.		Demonstrate respect for individuals within diverse groups. 5.PS2.B.a.	
1. Getting to Know My "I": Self Awareness 1.2. Thread of Life Quilt	Youth will interview two people and compare their similarities and differences.	Apply research process to locate information in reference texts, electronic resources, interviews, or visual sources and literary and informational texts. 3.W.3.A.d.	Identify and develop strategies to promote acceptance and respect in the school and community. 6.PS2.B.a.	
1. Getting to Know My "I": Self Awareness 1.3. Pearls of Culture	Youth will recognize unique qualities of themselves, their families, their community, and their state/country.		Identify and develop strategies to promote acceptance and respect in the school and community. 6.PS2.B.a.	
1. Getting to Know My "I": Self Awareness 1.4. That's My Name	Youth will explore the importance and history behind their name and those of their classmates.		Identify and develop strategies to promote acceptance and respect in the school and community. 6.PS2.B.a.	
1. Getting to Know My "I": Self Awareness 1.5. Celebrating Cultural Diversity With Food	Youth will collect and research family recipes to combine into a group cookbook.	Apply research process to locate information in reference texts, electronic resources, interviews, or visual sources and literary and informational texts. 3.W.3.A.d.	Identify and develop strategies to promote acceptance and respect in the school and community. 6.PS2.B.a.	

Activity	Description	English Language Arts	Guidance & Counseling	Social Studies
2. This is What "I" Know: Expanding Cultural Knowledge 2.1. It's a Big World After All	Youth will learn about world geography and other cultures.		Identify and develop strategies to promote acceptance and respect in the school and community. 6.PS2.B.a.	Locate the major landforms of the world. 6-8.GEO.1.G.F.
2. This is What "I" Know: Expanding Cultural Knowledge 2.2. Did Ya' Know?	Youth will gain a better understanding of immigration history through interviews and discussions.	Apply research process to locate information in reference texts, electronic resources, interviews, or visual sources and literary and informational texts. 3.W.3.A.d.	Identify and develop strategies to promote acceptance and respect in the school and community. 6.PS2.B.a.	
2. This is What "I" Know: Expanding Cultural Knowledge 2.3. What I Hold Dear	Youth will have a better understanding of why immigrants leave their countries.		Identify and develop strategies to promote acceptance and respect in the school and community. 6.PS2.B.a.	
2. This is What "I" Know: Expanding Cultural Knowledge 2.4. Caterpillars and Flying Ants	Youth will increase their knowledge about other cultures.		Identify and develop strategies to promote acceptance and respect in the school and community. 6.PS2.B.a.	
2. This is What "I" Know: Expanding Cultural Knowledge 2.5. How Did We Become a Nation?	Youth will explore the experiences of various cultural groups that are in the U.S.	Write fiction or non-fiction narratives and poems that establish a setting and situation/topic and introduce a narrator and/or characters. 5.W.2.C.a.	Identify and develop strategies to promote acceptance and respect in the school and community. 6.PS2.B.a.	
3. How "I" Think and Feel: Exploring Attitudes and Beliefs 3.1. Developing Insect Eyes	Youth will learn about the importance of different points of view.		Identify and develop strategies to promote acceptance and respect in the school and community. 6.PS2.B.a.	
3. How "I" Think and Feel: Exploring Attitudes and Beliefs 3.2. Looking Through a Multi-Colored Lens	Youth will seek out views from others who are different.	Write fiction or non-fiction narratives and poems that establish a setting and situation/topic and introduce a narrator and/or characters. 5.W.2.C.a.	Identify and develop strategies to promote acceptance and respect in the school and community. 6.PS2.B.a.	

Activity	Description	English Language Arts	Guidance & Counseling	Social Studies
3. How “I” Think and Feel: Exploring Attitudes and Beliefs 3.3. Is it Just a Game?	Youth will understand the problems with stereotypes.		Identify and develop strategies to promote acceptance and respect in the school and community. 6.PS2.B.a.	
3. How “I” Think and Feel: Exploring Attitudes and Beliefs 3.4. Up Close and Personal	Youth will identify how respect is expressed in various cultures.		Identify and develop strategies to promote acceptance and respect in the school and community. 6.PS2.B.a.	Conduct and present social studies’ research to an audience using appropriate sources. 5.TS.7.D.a.
3. How “I” Think and Feel: Exploring Attitudes and Beliefs 3.5. Labels Don’t Define Me	Youth will identify the dangers of stereotypes.		Identify and develop strategies to promote acceptance and respect in the school and community. 6.PS2.B.a.	
4. The Actions of “I”: Skills and Behaviors 4.1. Out of the Picture	Youth will experience how it feels to be excluded.		Identify and develop strategies to promote acceptance and respect in the school and community. 6.PS2.B.a.	
4. The Actions of “I”: Skills and Behaviors 4.2. Can You Hear Me?	Youth will understand the importance of showing respect by being good listeners.	Develop and apply effective listening skills and strategies in formal and informal settings by following agreed upon rules for listening and fulfilling discussion rules independently. 5.SL.1.A.a.	Identify and develop strategies to promote acceptance and respect in the school and community. 6.PS2.B.a.	
4. The Actions of “I”: Skills and Behaviors 4.3. What Would You do?	Youth will choose strategies to help diffuse conflicts in real life situations.		Practice problem-solving and conflict-resolution skills. 7.PS2.C.a.	Evaluate constructive processes or methods for resolving conflicts. 5.RI.6.B.a.
4. The Actions of “I”: Skills and Behaviors 4.4. Act it Out	Youth will understand the importance of relationships skills.		Identify interpersonal skills needed to maintain quality relationships. 6.PS2.A.a.	

Activity	Description	English Language Arts	Guidance & Counseling	Social Studies
4. The Actions of "I": Skills and Behaviors 4.5. Movers and Shakers	Youth will explore the positive attributes of people who have made a difference in the lives of others.	Apply research process to locate information in reference texts, electronic resources, interviews, or visual sources and literary and informational texts. 3.W.3.A.d.		Conduct and present social studies' research to an audience using appropriate sources. 5.TS.7.D.a.
5. The World Beyond "I": Taking it Beyond Myself 5.1. Echo the Lesson	Youth will identify and teach a lesson from their i2i experiences.	Speak clearly, audibly, and to the point, using conventions of language when presenting individually or with a group by planning an appropriate presentation based on audience. 5.SL.4.A.b.	Identify and develop strategies to promote acceptance and respect in the school and community. 6.PS2.B.a.	
5. The World Beyond "I": Taking it Beyond Myself 5.2. Cause a Change	Youth will learn about other groups that are dedicated to cultural issues.		Identify and develop strategies to promote acceptance and respect in the school and community. 6.PS2.B.a.	
5. The World Beyond "I": Taking it Beyond Myself 5.3. Hear Me Roar	Youth will share what they have learned about cultural competence.	Speak clearly, audibly, and to the point, using conventions of language when presenting individually or with a group by Using efficient presentation skills with available resources using a variety of media. 5.SL.4.A.a.	Identify and develop strategies to promote acceptance and respect in the school and community. 6.PS2.B.a.	
5. The World Beyond "I": Taking it Beyond Myself 5.4. Continue the Journey	Youth will explore cultural events in their school and community.		Promote acceptance and respect for individual differences. 7.PS2.B.a.	

[Text Wrapping Break]



Communications Level 1

Communications: Module 1

Activity	Description	English Language Arts	Guidance & Counseling
Communication & Me	Youth will describe various modes of communications and create a communication web.	Speak clearly, audibly, and to the point, using conventions of language when presenting individually or with a group by using efficient presentation skills with available resources. 4.SL.4.A.b	
Compose Your Song	Youth will compose and perform a rap song on a specific topic.	Write informative/explanatory texts that use specific, relevant words that are related to the topic, audience, and purpose. 3.W.2.B.c	
Do-able Demo	Youth will prepare and present a demonstration.	Speak clearly, audibly, and to the point, using conventions of language when presenting individually or with a group by using efficient presentation skills with available resources using a variety of media. 5.SL.4.A.a	
Don't Be Bullied	Youth will identify and understand aggressive communication (bullying).	Apply research process to locate information in reference texts, electronic resources, interviews, or visual sources and literary and informational texts. 3.W.3.A.d	Identify issues that impact personal safety. 3.PS3.B.a
Follow My Lead	Youth will give and understand clear directions.	Develop and apply effective listening skills and strategies in formal and informal settings by following and restating multi-step instructions that involve a short related sequence of actions, according to classroom expectations. 4.SL.1.A.c	Identify the interpersonal skills necessary to build quality relationships. 3.PS2.A.a

Activity	Description	English Language Arts	Guidance & Counseling
Illustrated Talks	Youth will develop and present an illustrated talk using electronic and visual elements.	Speak clearly, audibly, and to the point, using conventions of language when presenting individually or with a group by using efficient presentation skills with available resources using a variety of media. 5.SL.4.A.a	
Jumping In	Youth will understand own and others communication mode preferences from various cultures.		Recognize and respect diverse groups within the school and community. 4.PS2.A.a
Let's Write	Youth will select an appropriate format and write a letter.	Write informative/explanatory texts that use specific, relevant words that are related to the topic, audience, and purpose. 3.W.2.B.c	
Resource Detectives	Youth will choose good sources of information to use from the internet.	Apply research process to assess relevance, accuracy, and reliability of information in print and digital sources. 5.W.3.A.e	
Who's Who	Youth will make introductions for various audiences and cultures.	Speak clearly, audibly, and to the point, using conventions of language when presenting individually or with a group by adjusting formal/informal language according to context and topic. 4.SL.4.A.f	Demonstrate respect for individuals within diverse groups. 5.PS2.B.a



Communications Level 2

Communications: Module 2Source: [Missouri 4-H Website](#)

	Description	Computer Science	English Language Arts	Guidance & Counseling
Between You and Me	Youth will understand conflict resolution strategies.			Review and implement strategies to resolve problems and conflicts successfully. 5.PS2.C.a
Now Hear This	Youth will understand that how you say something communicates a message.		Speak clearly, audibly, and to the point, using conventions of language when presenting individually or with a group by employing appropriate pacing, vocabulary, and gestures to communicate a clear viewpoint. 5.SL.4.A.c	
Crossing Cultures	Youth will understand that there are different cultural rules and the importance of communicating with people who are different than you.			Demonstrate respect for individuals within diverse groups. 5.PS2.B.a
Seek to Connect	Youth will adapt a presentation to a variety of audiences.		Write informative/explanatory texts that use specific, relevant words that are related to the topic, audience, and purpose. 5.W.2.B.c	Demonstrate respect for individuals within diverse groups. 5.PS2.B.a

	Description	Computer Science	English Language Arts	Guidance & Counseling
Becoming Clear	Youth will prepare an online message using proper form.		Write informative/explanatory texts that use specific, relevant words that are related to the topic, audience, and purpose. 5.W.2.B.c	
Quotes	Youth will write a short speech using a quote with correct citation.		Apply a research process to follow guidelines for collecting and recording information. 5.W.3.A.c	
Caring Correspondence	Youth will write both formal and informal thank you notes.		Write informative/explanatory texts that use specific, relevant words that are related to the topic, audience, and purpose. 5.W.2.B.c	Demonstrate respect for individuals within diverse groups. 5.PS2.B.a
Checking your Chat	Youth will develop guidelines for internet etiquette.	Develop a code of conduct, explain and practice grade-level appropriate behavior and responsibilities while participating in an online community. Identify and report inappropriate behavior and know how to report cyberbullying. 5.IC.SI.01		Apply personal safety strategies as they relate to violence and harassment. 5.PS3.B.a
The Higher Choices	Youth will practice strategies for good communication choices when confronted with a bully.			Identify problem-solving, decision-making, and refusal skills needed to make safe/healthy choices in social situations. 6.PS3.A.a
Extra! Extra!	Youth will prepare a press release and prepare and practice a Public Service Announcement (PSA).		Write informative/explanatory texts that use specific, relevant words that are related to the topic, audience, and purpose. 5.W.2.B.c	

	Description	Computer Science	English Language Arts	Guidance & Counseling
Speeching Up	Youth will prepare and deliver a speech with a specific purpose.		Speak clearly, audibly, and to the point, using conventions of language when presenting individually or with a group by planning an appropriate presentation based on audience. 5.SL.4.A.b	
Communication Accessorizing	Youth will prepare visual aids for a speech, webpage or other media.		Speak clearly, audibly, and to the point, using conventions of language when presenting individually or with a group by using efficient presentation skills with available resources using a variety of media. 5.SL.4.A.a	
Speech Check Off	Youth will develop an evaluation to and critique a partner's presentation.		Develop and apply effective listening skills and strategies in formal and informal settings by following agreed upon rules for listening and fulfilling discussion rules independently. 5.SL.1.A.a.	
Treasure Hunt	Youth will brainstorm and research communication careers.			Compare interests and strengths with those of workers in the global community. 5.CD7.A.a
Presentation in a Techno-world	Youth will research various technologies used for presentations and present using technology.		Speak clearly, audibly, and to the point, using conventions of language when presenting individually or with a group by using efficient presentation skills with available resources using a variety of media. 5.SL.4.A.a	



Entrepreneurship Level 2

Entrepreneurship 2: ESI: The Case of MeSource: [Missouri 4-H Website](#)

Activity	Description	English Language Arts	Guidance & Counseling	Social Studies
Is That My Conscience I Hear Talking? Let Your Conscience Be Your Guide	Youth will evaluate personal values and beliefs.		Recognize positive self-talk and communicate personal thoughts and feelings. 4.PS1.A.a.	
Is That My Conscience I Hear Talking? Where Do You Stand?	Youth will evaluate personal values and beliefs		Recognize positive self-talk and communicate personal thoughts and feelings. 4.PS1.A.a.	
Is That My Conscience I Hear Talking? This I Believe	Youth will create a "Personal Code of Honor".		Recognize positive self-talk and communicate personal thoughts and feelings. 4.PS1.A.a.	
Is That My Conscience I Hear Talking? Building Your Reputation	Youth will understand the importance of reputation for building a business.		Compare personal, ethical, and work habit skills needed for school success with those of workers in the community. 3.CD9.A.a	
YOU Can Make a Difference: Undercover Kindness	Youth will explore examples of anonymous kindnesses.		Reflect on personal roles in the community and identify responsibilities as a community member. 4.PS1.B.a.	

Activity	Description	English Language Arts	Guidance & Counseling	Social Studies
YOU Can Make a Difference: Pay It Back	Youth will explore the idea of charitable contributions.		Reflect on personal roles in the community and identify responsibilities as a community member. 4.PS1.B.a.	
YOU Can Make a Difference: Discover Philanthropy	Youth will research and share findings about a philanthropist.			Conduct and present social studies' research to an audience using appropriate sources. 5.TS.7.D.a.
YOU Can Make a Difference: Finding a Cause	Youth will explore ways businesses can give back to the community.		Reflect on personal roles in the community and identify responsibilities as a community member. 4.PS1.B.a.	
YOU Can Make a Difference: Who's Giving?	Youth will survey local business owners to find out their views on community service.	Apply research process to locate information in reference texts, electronic resources, interviews, or visual sources and literary and informational texts. 3.W.3.A.d.	Reflect on personal roles in the community and identify responsibilities as a community member. 4.PS1.B.a.	
Playing the Part: Dress Like a Pro	Youth will describe and assess the qualities of professionalism.		Reflect on personal roles in the community and identify responsibilities as a community member. 4.PS1.B.a.	
Playing the Part: Think Positive	Youth will identify ways to nurture positive relationships.		Identify the interpersonal skills necessary to build quality relationships. 3.PS2.A.a.	
Playing the Part: Acting the Part!	Youth will observe a local business to identify positive interactions with customers.	Apply research process to convert graphic/visual data into written notes. 5.W.3.A.f.	Identify the interpersonal skills necessary to build quality relationships. 3.PS2.A.a.	

Activity	Description	English Language Arts	Guidance & Counseling	Social Studies
Got Time? Time Flies (When You're Havin' Fun!)	Youth will identify the benefits and obstacles to good time management.	Apply research process to convert graphic/visual data into written notes. 5.W.3.A.f.	Reflect on personal roles at home and at school and identify responsibilities. 3.PS1.B.a.	
Got Time? Time is Wasted, Time is Saved	Youth will identify the benefits and obstacles to good time management.		Reflect on personal roles at home and at school and identify responsibilities. 3.PS1.B.a.	
Got Time? The Value of Time	Youth will identify the benefits and obstacles to good time management.		Reflect on personal roles at home and at school and identify responsibilities. 3.PS1.B.a.	
Got Time? Getting Control of Your Time	Youth will develop and use a time-management tool.		Develop strategies to balance family, school, and community roles. 5.PS1.A.a.	
Investigating the Sale: Selling the Real You!	Youth will prepare and present a persuasive message about themselves and their ideas.	Write informative/explanatory texts that develop the topic with simple facts, definitions, details, and explanations. 3.W.2.B.b.	Demonstrate the personal characteristics to maintain a positive self-concept. 5.PS1.A.a.	
Investigating the Sale: Selling the Big Idea	Youth will prepare and present a persuasive message about themselves and their ideas.	Speak clearly, audibly, and to the point, using conventions of language when presenting individually or with a group by planning an appropriate presentation based on audience. 5.SL.4.A.b.	Demonstrate the personal characteristics to maintain a positive self-concept. 5.PS1.A.a.	

Activity	Description	English Language Arts	Guidance & Counseling	Social Studies
Investigating the Sale: You Can Sell	Youth will use the benefit approach when selling a product or service.	Speak clearly, audibly, and to the point, using conventions of language when presenting individually or with a group by planning an appropriate presentation based on audience. 5.SL.4.A.b.	Apply personal, ethical, and work habit skills needed for success in any school or work environment. 5.CD9.A.a.	
Staying in Business and Out of Court: Legally Named	Youth will explore different types of protections for business ideas.	Apply research process to convert graphic/visual data into written notes. 5.W.3.A.f.		
Staying in Business and Out of Court: Pay My Uncle Sam?	Youth will learn about income tax and its relationship to business income.	Apply research process to locate information in reference texts, electronic resources, interviews, or visual sources and literary and informational texts. 3.W.3.A.d.		
Staying in Business and Out of Court: Help! I Need Somebody	Youth will interview an attorney to explore some of the basic legal issues involved with starting a business.	Apply research process to locate information in reference texts, electronic resources, interviews, or visual sources and literary and informational texts. 3.W.3.A.d.	Gather information regarding training and education for a variety of careers. 3.CD8.B.a.	
Mapping and Planning Together: Who Needs a Road Map?	Youth will describe the reasons for planning to reach personal and business goals.			Construct maps for relevant social studies topics. 5.EG.5.A.b.
Mapping and Planning Together: Worst Case Scenario	Youth will describe the reasons for planning to reach personal and business goals.		Identify and apply the steps to setting short-term and long-term, personal, and educational goals. 3.CD7.A.a.	



Entrepreneurship Level 3

Entrepreneurship 3: ESI: Your Business InspectionSource: [Missouri 4-H Website](#)

Activity	Description	English Language Arts	Guidance & Counseling	Math	Social Studies
What Are the Possibilities? I'm Bored, Our Community Needs This	Youth will generate ideas for potential businesses using brainstorming techniques.	Develop and apply effective listening skills and strategies in formal and informal settings by posing and responding to specific questions to clarify or following up on information and making comments that contribute to the discussion to link to the remarks of others. 5.SL.1.A.b.	Demonstrate skills needed to participate in team building. 6.PS1.C.a.		
What Are the Possibilities? Researching the Landscape	Youth will generate ideas for potential businesses using survey techniques.	Apply research process to follow guidelines for collecting and recording information. 5.W.3.A.c.			
What Are the Possibilities? Narrowing the Playing Field	Youth will use a decision-making process to identify a potential business.		Use current interests, strengths, and limitations to guide individual career exploration. 6.CD7.A.a.		

Activity	Description	English Language Arts	Guidance & Counseling	Math	Social Studies
Uncover Your Business Ideas: Discovering Hidden Treasures	Youth will discover why developing categories for evaluating or sorting information is an important decision-making tool.	Draw conclusions, infer, and analyze by citing textual evidence to support analysis of what the texts says explicitly as well as inferences drawn from the text. 6.RI.1.A.a.	Describe the contributions of a variety of jobs in the community. 5.CD7.C.a.		
Uncover Your Business Ideas: Finding Your Business Treasure	Youth will discover why developing categories for evaluating or sorting information is an important decision-making tool.		Use current interests, strengths, and limitations to guide individual career exploration. 6.CD7.A.a.		
Digging Deeper, Flying Higher: Simple Field Research	Youth will explore supply and demand issues for a potential business.				Use visual tools to interpret, draw conclusions, make predictions, and communicate information and ideas. 5.TS.7.B.a.
Digging Deeper, Flying Higher: My Research Results	Youth will research their business ideas using the Internet and local resources.		Use current interests, strengths, and limitations to guide individual career exploration. 6.CD7.A.a.		
Digging Deeper, Flying Higher: Decision Time	Youth use a decision-making matrix to help decide which business to choose.		Use current interests, strengths, and limitations to guide individual career exploration. 6.CD7.A.a.		Use visual tools to interpret, draw conclusions, make predictions, and communicate information and ideas. 5.TS.7.B.a.

Activity	Description	English Language Arts	Guidance & Counseling	Math	Social Studies
Spotlight on Your Business: Your Personality DNA	Youth will develop a business philosophy for their business.	Write informative/explanatory texts that use specific, relevant and accurate words that are suited to the topic, audience, and purpose. 5.W.2.B.d.	Use current interests, strengths, and limitations to guide individual career exploration. 6.CD7.A.a.		
Spotlight on Your Business: Mission NOT Impossible	Youth will write a mission statement for their business.	Write informative/explanatory texts that use specific, relevant and accurate words that are suited to the topic, audience, and purpose. 5.W.2.B.d.	Use current interests, strengths, and limitations to guide individual career exploration. 6.CD7.A.a.		
Spotlight on Your Business: Let's Make a Goal	Youth will write goals for their business.	Write informative/explanatory texts that use specific, relevant and accurate words that are suited to the topic, audience, and purpose. 5.W.2.B.d.	Use current interests, strengths, and limitations to guide individual career exploration. 6.CD7.A.a.		
Takin' Care of Business: Ways to Get There	Youth will explore ways to go into business;		Use current interests, strengths, and limitations to guide individual career exploration. 6.CD7.A.a.		Use visual tools to interpret, draw conclusions, make predictions, and communicate information and ideas. 5.TS.7.B.a.
Takin' Care of Business: The Leader of the Pack	Youth will explore three types of ownership.	Draw conclusions, infer, and analyze by citing textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text. 6.RI.1.A.a.	Use current interests, strengths, and limitations to guide individual career exploration. 6.CD7.A.a.		
Show Me The Money! Investigating the Risks	Youth will explore costs for a business start up.		Use current interests, strengths, and limitations to guide individual		

Activity	Description	English Language Arts	Guidance & Counseling	Math	Social Studies
			career exploration. 6.CD7.A.a.		
Show Me The Money! It's Your Turn	Youth will explore costs for a business start up.		Use current interests, strengths, and limitations to guide individual career exploration. 6.CD7.A.a.		
Show Me The Money! Where's the Money?	Youth will make a decision about how to finance their business.	Speak clearly, audibly, and to the point, using conventions of language when presenting individually or with a group by planning an appropriate presentation based on audience. 5.SL.4.A.b.	Use current interests, strengths, and limitations to guide individual career exploration. 6.CD7.A.a.		
Building Your Team: Building a Skills-Based Team	Youth will identify and communicate their own strengths and those needed in employees.		Use current interests, strengths, and limitations to guide individual career exploration. 6.CD7.A.a.		
Building Your Team: Hire Your First Employee or Volunteer	Youth will identify and communicate their own strengths and those needed in employees.	Write informative/explanatory texts that use specific, relevant and accurate words that are suited to the topic, audience, and purpose. 5.W.2.B.d.			
Building Your Team: Will They Stay?	Youth will explore characteristics of a positive work environment.		Identify interpersonal skills needed to maintain quality relationships. 6.PS2.A.a.		

Activity	Description	English Language Arts	Guidance & Counseling	Math	Social Studies
What Is Customer Service? Forget You!	Youth will write a play to illustrate ways to nurture positive relationships with their customers.	Write fiction or nonfiction narratives and poems that establish a setting and situation/topic and introduce a narrator and/or characters. 5.W.2.C.a.	Identify interpersonal skills needed to maintain quality relationships. 6.PS2.A.a.		
What Is Customer Service? Who Cares?	Youth will identify ways to nurture positive relationships with their customers.		Identify interpersonal skills needed to maintain quality relationships. 6.PS2.A.a.		
What Is Customer Service? Undercover Shopper	Youth will identify ways to nurture positive relationships with their customers.		Identify interpersonal skills needed to maintain quality relationships. 6.PS2.A.a.		
What Is Customer Service? It's Our Motto	Youth will write a Customer Service Motto for their business.	Write fiction or on-fiction narratives and poems that use specific, relevant, and accurate words that are suited to the topic, audience and purpose. 5.W.2.C.e.	Identify interpersonal skills needed to maintain quality relationships. 6.PS2.A.a.		
Create a Customer Service Handbook: What Makes it Positive?	Youth will interview people to identify the characteristics of a positive customer experience.	Apply research process to select relevant resources, literary and informational. 5.W.3.A.d.	Identify interpersonal skills needed to maintain quality relationships. 6.PS2.A.a.		
Create a Customer Service Handbook: Develop a Customer Service Policy	Youth will develop a customer service handbook for their business.	Write fiction or on-fiction narratives and poems that use specific, relevant, and accurate words that are suited to the topic, audience and purpose. 5.W.2.C.e.	Identify interpersonal skills needed to maintain quality relationships. 6.PS2.A.a.		

Activity	Description	English Language Arts	Guidance & Counseling	Math	Social Studies
Who Is the Intended Target? What is a Target Market?	Youth will determine a product's target market and its customer profiles.				Research and defend a point of view/position on a social studies' question. 5.TS.7.BBBB.a.
Who Is the Intended Target? Picturing Your Market	Youth will identify product images for a particular target customer.				Use visual tools to interpret, draw conclusions, make predictions, and communicate information and ideas. 5.TS.7.G.a.
Who Is the Intended Target? The Customer Profile	Youth will identify the customer profile for their business.		Use current interests, strengths, and limitations to guide individual career exploration. 6.CD7.A.a.		
Who Is the Intended Target? Who is YOUR Customer, Really?	Youth will research the numbers for their identified target market.		Use current interests, strengths, and limitations to guide individual career exploration. 6.CD7.A.a.		
Packaging Under Wraps: How is the Product Packaged?	Youth will evaluate different products to determine their physical features, packaging, and labeling methods.	Read to develop an understanding of media and its components by comparing and contrasting the difference in techniques used in media. 5.R.4.A.b.			Research and defend a point of view/position on a social studies' question. 5.TS7.G.a.
Packaging Under Wraps: Investigating Your Product or Service	Youth will evaluate their own product to decide on packaging, labeling and		Use current interests, strengths, and limitations to guide individual		Research and defend a point of view/position on a social studies' question. 5.TS7.G.a.

Activity	Description	English Language Arts	Guidance & Counseling	Math	Social Studies
	naming methods.		career exploration. 6.CD7.A.a.		
Packaging Under Wraps: Packaging a Product Prototype	Youth will create and evaluate a business product's packaging.		Use current interests, strengths, and limitations to guide individual career exploration. 6.CD7.A.a.		Research and defend a point of view/position on a social studies' question. 5.TS7.G.a.
Investigating the Product Scene: Mix and Match Products	Youth will evaluate a population to determine target markets for various products.				Research and defend a point of view/position on a social studies' question. 5.TS7.G.a.
Investigating the Product Scene: Creating Your Own Mix and Match	Youth will analyze census data to identify potential target markets.				Research and defend a point of view/position on a social studies' question. 5.TS7.G.a.
At the Scene: There's No Place Like Home	Youth will evaluate factors influencing site selection to determine the best location for their business.		Use current interests, strengths, and limitations to guide individual career exploration. 6.CD7.A.a.		Research and defend a point of view/position on a social studies' question. 5.TS7.G.a.
At the Scene: Connecticut Avenue or Boardwalk Location?	Youth will evaluate factors influencing site selection to determine the best location for their business.		Use current interests, strengths, and limitations to guide individual career exploration. 6.CD7.A.a.		Research and defend a point of view/position on a social studies' question. 5.TS7.G.a.

Activity	Description	English Language Arts	Guidance & Counseling	Math	Social Studies
At the Scene: "X: Marks the Spot	Youth will evaluate factors influencing site selection to determine the best location for their business.		Use current interests, strengths, and limitations to guide individual career exploration. 6.CD7.A.a.		Use geographic sources to acquire information, answer questions and solve problems. 5.EG.5.A.a.
At the Scene: On the Scene	Youth will draw a floor plan for their business.		Use current interests, strengths, and limitations to guide individual career exploration. 6.CD7.A.a.		
A Thorough Sweep of the Competition	Youth will identify characteristics of direct and indirect competition.		Use current interests, strengths, and limitations to guide individual career exploration. 6.CD7.A.a.		Research and defend a point of view/position on a social studies' question. 5.TS7.G.a.
Products at All Costs: The Price Puzzle	Youth will calculate a product's cost, markup and determine their pricing strategy.				Research and defend a point of view/position on a social studies' question. 5.TS7.G.a.
Products at All Costs: Buy My Products	Youth will calculate a product's cost, markup and determine their pricing strategy.	Draw conclusions, infer, and analyze by citing textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text. 6.RI.1.A.a.			
Products at All Costs: Calculating the Selling Price	Youth will calculate a product's cost, markup and determine their pricing strategy.			Solve percent problems. 6.RP.A.3.C.	

Activity	Description	English Language Arts	Guidance & Counseling	Math	Social Studies
The Clues Are Everywhere: Name That Business!	Youth will identify businesses associated with celebrities.				Use visual tools to interpret, draw conclusions, make predictions, and communicate information and ideas. 5.TS.7.B.a.
The Clues Are Everywhere: Community Recognition	Youth will evaluate three community businesses and determine their logos and/or slogans.		Use current interests, strengths, and limitations to guide individual career exploration. 6.CD7.A.a.		
The Clues Are Everywhere: It's All in a Name	Youth will create a name, design a logo and create a slogan for their business.		Use current interests, strengths, and limitations to guide individual career exploration. 6.CD7.A.a.		
The Advertising Detective: The Advertising Detective	Youth will discover various methods of advertising and publicity.	Read to develop an understanding of media and its components by explaining how messages conveyed in various forms of media are presented differently. 5.R.4.A.a.			
The Advertising Detective: Did You See That Ad?	Youth will discover various methods of advertising and publicity.	Read to develop an understanding of media and its components by explaining how messages conveyed in various forms of media are presented differently. 5.R.4.A.a.			

Activity	Description	English Language Arts	Guidance & Counseling	Math	Social Studies
The Advertising Detective: Word Up! What's With That Ad?	Youth will discover various methods of advertising and publicity.	Read to develop an understanding of media and its components by comparing and contrasting the difference in techniques used in media. 5.R.4.A.b.			
The Advertising Detective: Don't Always Pay for What You Get	Youth will write a press release to advertise the opening of their new business.	Write informative/explanatory texts that use specific, relevant, and accurate words that are suited to the topic, audience, and purpose. 5.W.2.B.d.	Use current interests, strengths, and limitations to guide individual career exploration. 6.CD7.A.a.		
We'll Keep in Touch: Keep Your Customers Coming Back	Youth will research customer loyalty and create products and policies to promote customer loyalty for their business.	Write informative/explanatory texts that use specific, relevant, and accurate words that are suited to the topic, audience, and purpose. 5.W.2.B.d.	Identify interpersonal skills needed to maintain quality relationships. 6.PS1.A.a.		Research and defend a point of view/position on a social studies' question. 5.TS7.G.a.
We'll Keep in Touch: We'll Keep in Touch	Youth will use technology to create and design various advertising media that effectively communicate their marketing message.	With assistance from adults/peers use technology, including the internet to produce and publish writing. 5.W.1.D.a.	Use current interests, strengths, and limitations to guide individual career exploration. 6.CD7.A.a.		
Collecting and Organizing Clues: Finding Your GPD!	Youth will practice record keeping to make wise use of resources.		Identify and develop personal planning strategies to manage individual, family, and school responsibilities. 6.PS1.B.a.		

Activity	Description	English Language Arts	Guidance & Counseling	Math	Social Studies
Collecting and Organizing Clues: Tracking Business Expenses	Youth will explain the importance of record keeping and projecting sales and expenses to make wise use of resources.		Identify and develop personal planning strategies to manage individual, family, and school responsibilities. 6.PS1.B.a.		
Collecting and Organizing Clues: Anticipation!	Youth will explain the importance of record keeping and projecting sales and expenses to make wise use of resources.		Identify and develop personal planning strategies to manage individual, family, and school responsibilities. 6.PS1.B.a.		Explain the relationship between profit and loss in economic decisions. 4.E.4.A.b.
Analyzing the Clues: Making Sense of Your Data	Youth will analyze financial records and complete financial statements used to measure the progress and condition of their business.		Identify and develop personal planning strategies to manage individual, family, and school responsibilities. 6.PS1.B.a.		Explain the relationship between profit and loss in economic decisions. 4.E.4.A.b.
Going With the Flow: The Money Flow	Youth will analyze financial records and complete a cash flow statement to measure the money going in and out of their business.		Identify and develop personal planning strategies to manage individual, family, and school responsibilities. 6.PS1.B.a.		Explain the relationship between profit and loss in economic decisions. 4.E.4.A.b.
Going With the Flow: Flowing with the Cash Flow	Youth will analyze financial records and complete a cash flow statement to measure the money going in and out of their business.		Identify and develop personal planning strategies to manage individual, family, and school responsibilities. 6.PS1.B.a.		Explain the relationship between profit and loss in economic decisions. 4.E.4.A.b.

Activity	Description	English Language Arts	Guidance & Counseling	Math	Social Studies
Going With the Flow: Building a Projected cash Flow	Youth will analyze financial records and complete a cash flow statement to measure the money going in and out of their business.		Identify and develop personal planning strategies to manage individual, family, and school responsibilities. 6.PS1.B.a.		Explain the relationship between profit and loss in economic decisions. 4.E.4.A.b.
The Motive: A Tale of Two Cities	Youth will understand the importance of and know how to calculate your break-even price.		Identify and develop personal planning strategies to manage individual, family, and school responsibilities. 6.PS1.B.a.		Explain the relationship between profit and loss in economic decisions. 4.E.4.A.b.
The Motive: Paying Yourself	Youth will understand the importance of and know how to calculate your break-even price.		Identify and develop personal planning strategies to manage individual, family, and school responsibilities. 6.PS1.B.a.		Explain the relationship between profit and loss in economic decisions. 4.E.4.A.b.



Financial Literacy Level 1

Financial Literacy 1: My Financial FutureSource: [Missouri 4-H Website](http://Missouri4H.org)

Activity	Description	English Language Arts	Guidance & Counseling	Math
Who Needs This?	Youth will identify the difference between needs and wants.		Reflect on personal roles at home and at school and identify responsibilities. 3.PS1.B.a.	
Let's get SMART	Youth will create SMART short term, medium term and long term goals.	Write opinion texts that state an opinion or establish a position and provide reasons for the opinion/position. 3.W.2.A.b.	Identify and apply the steps to setting short-term and long-term, personal, and educational goals. 3.CD7.A.a.	
Bringing Home the Bacon	Youth will understand the first component of a budget, income.		Identify positive characteristics and areas for personal growth. 3.PS1.A.a.	Demonstrate fluency with addition and subtraction within 1000. 3.NBT.A.3
Managing Your Money Flow	Youth will learn how to track expenses and create a budget.	Apply research process to take simple notes in own words and sort evidence into provided categories or organizer. 3.W.3.A.f.		Demonstrate fluency with addition and subtraction within 1000. 3.NBT.A.3
My Money Personality	Youth will learn how to track expenses and create a budget.		Identify positive characteristics and areas for personal growth. 3.PS1.A.a.	
Money Decisions	Youth will be able to assess scenarios regarding the importance of spending wisely.		Reflect on personal roles at home and at school and identify responsibilities. 3.PS1.B.a.	

Activity	Description	English Language Arts	Guidance & Counseling	Math
Banking Your \$\$\$\$	Youth will calculate interest and choose where to put their money based on the criteria they develop.			Use multiplication and division within 100 to solve problems. 3.RA.A.4
Charging it Up	Youth will form opinions about credit and debt.		Apply effective problem-solving, decision-making, and refusal skills to make safe and healthy choices in various life situations. 4.PS3.A.a.	Use multiplication and division within 100 to solve problems. 3.RA.A.4
Check it Out	Youth will successfully fill out a deposit slip, check registers, and checks.		Reflect on personal roles at home and at school and identify responsibilities. 3.PS1.B.a.	
Better than a Piggy Bank!	Youth will understand different financial services.	Apply research process to take simple notes in own words and sort evidence into provided categories or organizer. 3.W.3.A.f.	Apply effective problem-solving, decision-making, and refusal skills to make safe and healthy choices in various life situations. 4.PS3.A.a.	
My Work; My Future	Youth will identify a career and identify steps required to successfully enter that career field.	Apply research process to take simple notes in own words and sort evidence into provided categories or organizer. 3.W.3.A.f.	Identify and apply the steps to setting short-term and long-term, personal, and educational goals. 3.CD7.A.a.	



Leadership 1

Leadership: Step Up to Leadership: Mentor Guide for Grades K-5

Source: 4H.MISSOURI.EDU; [Leadership](#)

Activity	Description	Social Studies	English Language Arts	Guidance & Counseling
Kindergarten – 2nd Grade				
Good Things About Me	Youth learn good qualities of self and of a leader.			Recognizing personal character traits. 1.PS.1.C.a.
My Pet and Me	Youth share how to care for a pet and recognize it as a form of leadership.			Identify personal roles in the family. K.PS.1.B.a.
I Spy a Leader	Youth identify leaders in the community.	Describe the character traits of role models within your community. 1PC.1.e.a.		Identify character traits needed for different situations. K.PS.1.C.a.
Follow the Leader	Youth will learn to follow the leaders and identify when they can be leaders.		Develop and apply effective listening skills and strategies in formal and informal settings by: demonstrating active listening, according to classroom expectations. K-2.SL.2.A.a.	
Tell Me a Story!	Youth verbalize ideas while working in a group.		Speak clearly using conventions of language when presenting individually or with a group by: taking turns speaking, according to classroom expectations. K-1.SL.3.A.a.	
Oh My! I Lost My Voice!	Youth listen to and describe sounds around them using non-verbal communication.			
Let's Have Breakfast!	Youth plan and prepare a breakfast.	Describe why groups need to make decisions and how those decisions are made in families and classrooms. K.PC.2.C.a.		

Activity	Description	Social Studies	English Language Arts	Guidance & Counseling
Follow the Dinosaur Steps to a Party	Youth plan a party and carry out the plan.	Describe why groups need to make decisions and how those decisions are made in families and classrooms. K.PC.2.C.a.		
Peace Puppets	Youth use puppets to work through conflict and manage conflict in a safe environment.	Explain how to resolve disputes peacefully in the classroom and on the playground. K.RI.6.B.a.		Identify and demonstrate the interpersonal skills needed to make and keep a friend. 2.PS.2.A.a.
Choices, Choices	Youth make and follow through on a decision.			Express a variety of feelings. 2.PS.1.A.a.
Grades 3 - 5				
Assess Myself!	Youth assess personal leadership skills.			Identify the personal characteristic needed to contribute to the classroom. 3.PS.1.C.a.
This is ME!	Youth recognize what is important to them and how this affects how they lead.			Identify the personal characteristic needed to contribute to the classroom. 3.PS.1.C.a.
Put Yourself in Someone Else's Shoes!	Youth experience a disability and attempt to understand what it is like to live with a disability or trait that makes one different from others.			Recognize and respect diverse groups within the school and community. 4.PS.2.B.a.
Who's Responsible	Youth identify self-responsibility and give examples of things in life that they can control.			Reflect on personal roles at home and at school and identify responsibilities. 3.PS.1.C.a.
Step-by-Step	Youth use verbal communication skills.		Develop and apply effective listening skills and strategies in formal and informal settings by: Demonstrating active listening through body language and eye contact with the speaker, according to classroom expectations. 3.SL.2.A.a.	
I Didn't See What You Said!	Youth observe and record non-verbal communication and determine content of a conversation based on non-verbal communication.	Create and use artifacts to share information on social studies' topics. 3.TS.7.A.b.		

Activity	Description	Social Studies	English Language Arts	Guidance & Counseling
I Thought You Said ...?	Youth understand the importance of listening carefully and recognize how distractions can interfere with listening.			Identify the personal characteristic needed to contribute to the classroom. 3.PS.1.C.a.
Gathering Up Loose Ends	Youth learn to manage space wisely.			Reflect on personal roles at home and at school and identify responsibilities. 3.PS.1.C.a.
Untangle the Knot	Youth describe a goal and describe how goals are set.			Demonstrate respect for others' personal opinions and ideas. 4.PS.2.A.a.
Mapping Our Plan	Youth complete and implement an action plan.			Identify the personal characteristic needed to contribute to the classroom. 3.PS.1.C.a.
Many Hands Make Light Work	Youth work together as a team.			Apply time-management and organizational techniques necessary for assignments and/or task completion. 4.AD.4.B.a.
Freeze a Conflict	Youth express two different sides of a conflict and learn at least two different ways to manage conflict.			Review and implement strategies to resolve problems and conflicts successfully. 5.PS.2.C.a.
Now is That a Plan or What?	Youth use decision-making steps to plan, gather information and resources and consider options while planning an event.			Exhibit mutual respect and compromise in relationships. 5.PS.2.A.a. Review and implement strategies to resolve problems and conflicts successfully. 5.PS.2.C.a.



Leadership 2 and 3

Leadership: Cracking the Code of Leadership

Source: 4H.MISSOURI.EDU; [Leadership](#)

Activity	Description	English Language Arts	Guidance & Counseling	Social Studies
Four Corners of Leadership Traits	Youth will understand and identify helpful leadership traits, gain the knowledge to deconstruct myths and identify ways to build leadership skills.		Identify individual strengths and areas for personal growth and good citizenship. 6.PS.1.A.a.	
Role Play	Youth will identify specific ways to expand individual leadership capacities and understand key leadership concepts.		Identify and practice ways to be a contributing group member. 7.PS.1.C.a.	
Four Corners of Ethical Leadership	Youth will understand the role of character and ethics in leadership.		Identify individual strengths and areas for personal growth and good citizenship. 6.PS.1.A.a.	
Let's Talk About 4-H Leadership	Youth will understand how 4-H contributes to leadership development and gain ideas for future 4-H engagement.		Demonstrate understanding of individual strengths and personal challenges and how they relate to a positive self-concept. 7.PS.1.A.a.	
Leadership Themes of History	Youth will identify key themes from history's most recognized leaders.	Read, infer, and draw conclusions to analyze multiple accounts of the same event or topic, noting similarities and differences in the point of view. 5.R.3.C.d		Describe the character traits and civic attitudes of historically significant individuals in the United States history from c. 1800-2000. 5.PC.1.E.a.
Leadership Styles for Me	Youth will apply effective leadership styles to specific situations.		Self-assess interpersonal skills that will help maintain quality relationships.	

Activity	Description	English Language Arts	Guidance & Counseling	Social Studies
			8.PS.2.A.a.	
Power Play	Youth will identify different leadership styles and recognize when a change in leadership is needed.		Self-assess interpersonal skills that will help maintain quality relationships. 8.PS.2.A.a.	
Four Corners of Leadership style	Youth will identify areas in which to build leadership skills and be able to apply effective leadership styles to specific situations.		Identify individual strengths and areas for personal growth and good citizenship. 6.PS.1.A.a.	
Making it Happen	Youth will understand how 4-H contributes to leadership development and identify actionable ways to build leadership skills.		Identify and practice ways to be a contributing group member. 7.PS.1.C.a.	



Youth Futures

Youth Futures: 4-H Youth Futures SPIN Club Leader's Guide

Source: 4H.MISSOURI.EDU; [Career Pathways](#)

Note: Curriculum must be obtained by speaking with a 4-H Specialist.

Activity	Description	English Language Arts	Guidance & Counseling	Personal Finance
Educational Attainment Plan	Youth will create a high school academic plan appropriate for college or post high school admission.		Design a personal plan of study. 08.AD.6.A. Monitor and revise a personal plan of study. 09.AD.6.A.	
Types of Colleges	Youth will list the pros and cons of different types of post-secondary options.		Self-assess and apply information to expand awareness of the relationship between high school options and post-secondary options. 10.AD.5.A.	
Explore Colleges and Majors	Youth will explore the strengths and weaknesses of various types of degrees.		Self-assess and apply information to expand awareness of the relationship between high school options and post-secondary options. 10.AD.5.A.	
Preparing a Portfolio	Youth will begin to create a portfolio that they can add to in the future.		Self-assess and apply information to expand awareness of the relationship between high school options and post-secondary options. 10.AD.5.A.	
Budgeting Skills: The Bean Game	Youth will learn about earning, saving, investing, and donating money.			Evaluate the role of choice in decision making. PF.I.1.A.
Financing a Post High School Education	Youth will explore ways to finance post high school education.			Evaluate the role of choice in decision making. PF.I.1.A.
FAFSA	Youth will explore ways to maintain financial aid throughout the college experience.			Evaluate the role of choice in decision making. PF.I.1.A.

Activity	Description	English Language Arts	Guidance & Counseling	Personal Finance
Scholarships	Youth will learn about obtaining and renewing scholarships.			Evaluate the role of choice in decision making. PF.I.1.A.
The Career/College Major Game	Youth will explore careers and the college majors that align with them.		Utilize a variety of resources to aid in career exploration and planning. 11.CD7.B.a.	
Research Jobs	Youth will research job opportunities.		Utilize a variety of resources to aid in career exploration and planning. 11.CD7.B.a.	
What is Your Learning Style?	Youth will identify their personal learning style(s) and explore how to apply mindfulness techniques.		Identify resources that can help manage life changes or events. 9.PS.3.C.a.	
Study Skills Assessment	Youth will identify their personal study skills and explore how to apply mindfulness techniques.		Identify resources that can help manage life changes or events. 9.PS.3.C.a.	
Wellness Works	Youth will explore the five elements of personal wellness.		Identify resources that can help manage life changes or events. 9.PS.3.C.a.	
CVs/Resumes	Youth will create a curriculum vitae (CV).		Refine and utilize a portfolio which may be used for a variety of post-secondary opportunities. 11.CD.9.B.	
The Elevator Speech	Youth will prepare and practice an “elevator speech” related to their college and career goals	Make consistent eye contact with a range of listeners when speaking, using effective gestures to communicate a clear viewpoint and engage listeners; avoid body language or mannerisms that might be distracting to the audience. 9,10.SL.2.B.		
Presentation Skills	Youth will plan a five-minute speech and focus on presentation skills.	Make consistent eye contact with a range of listeners when speaking, using effective gestures to communicate a clear viewpoint and engage listeners; avoid body language or mannerisms that might be distracting to the audience. 9,10.SL.2.B.		

Communication & Expressive Arts

Missouri 4-H Projects

We are working hard to get all the project curriculums aligned to Missouri State Learning Standards. This document will be updated frequently. Here's what is available so far:

Projects with MLS aligned in this manual:

- Arts and Crafts
 - Scrapbooking
- Photography (level 1—3)
- Cake Decorating (level 1—4)
- Clothing
 - Sewing (level 1—3)
 - Shopping in Style
- Clowning
- Filmmaking

Projects available (MSL alignment coming soon):

- Arts and Crafts
 - Arts and Crafts
 - Visual Arts (level 1—2)
 - Graphic Design
- Crochet and Knitting
- Interior Design (level 1—3)
- Public Speaking
- Quilting (level 1—3)
- Theatre Arts (level 1—3)



Scrapbooking

Scrapbooking: Pieces of Time

Source: 4H.MISSOURI.EDU; [Arts and Crafts Projects](#)

Activity	Description	English Language Arts	Fine Arts
Safe Scrapping	Youth will learn about safe archiving techniques.	Read, infer, and draw conclusions to interpret and explain factual information presented graphically. 4.R.3.A.e	
What You Need	Youth will learn about scrapbooking materials and create a scrapbook page around a theme.		Collaboratively set goals and create artwork that is meaningful and has purpose to the makers. VA:CR1B.4
Scrapbooking Lingo	Youth will learn scrapbooking vocabulary.	Develop an understanding of vocabulary by using conversational, general academic, and domain-specific words and phrases. 4.R.1.B.f	
Designing a Page	Youth will follow a step-by-step process to create a balanced scrapbook page.	Read, infer, and draw conclusions to follow written multi-step directions. 2.R.3.A.e	Explore and invent art-making techniques and approaches. VA:Cr2A.4

Activity	Description	English Language Arts	Fine Arts
Color, Cropping and Matting	Youth will practice matting pictures using copping and matting and compare results.		Explore and invent art-making techniques and approaches. VA:Cr2A.4
Embellishments	Youth will practice adding embellishments to their scrapbook pages.		Explore and invent art-making techniques and approaches. VA:Cr2A.4
Journaling	Youth will use journaling techniques to write about their scrapbook pictures.	Write informative/explanatory texts that use specific, relevant, and accurate words that are suited to the topic, audience, and purpose. 4.W.2.B.c	
Layout and Exhibiting	Youth will create scrapbook pages for exhibition using the layout elements learned in this project.		Explore and invent art-making techniques and approaches. VA:Cr2A.4



Photography 1

Photography: Photography Basics

Source: 4H.MISSOURI.EDU; [Photography](#)

Activity	Description	Fine Arts: Media Arts
First Photo Shoot	Youth will get to know their camera.	Form, share, and test ideas, plans, and models to prepare for media arts productions. 3.Cr.2.A.a.
Keep it Steady, Keep it Level	Youth will practice keeping the camera steady and level.	Form, share, and test ideas, plans, and models to prepare for media arts productions. 3.Cr.2.A.a.
The Light Makes a Difference	Youth will practice taking photos, and noticing natural light.	Form, share, and test ideas, plans, and models to prepare for media arts productions. 3.Cr.2.A.a.
Fun With Shadows	Youth will notice shadows and their potential in photography.	Demonstrate intentional effect in refining media artworks, emphasizing elements for a purpose. 4.Cr.3.A.a.
Directing the Light	Youth will practice using natural light from several different directions.	Demonstrate intentional effect in refining media artworks, emphasizing elements for a purpose. 4.Cr.3.A.a.
Flash for More Light	Youth will practice using flash for fill, solving red-eye problems.	Demonstrate intentional effect in refining media artworks, emphasizing elements for a purpose. 4.Cr.3.A.a.
What Do You See?	Youth will evaluate background, middle – ground, foreground when taking pictures.	Determine how elements and components can be altered for clear communication and intentional effects and refine media artworks to improve clarity and purpose. 5.Cr.3.A. a.
Photograph with Your Feet	Youth will practice filling the frame with the subject.	Practice and analyze how the emphasis of elements alters effect and purpose in refining and completing media artworks. 3.Cr.3. A.b.
What's the Point?	Practice eliminating of background clutter in photos.	Determine how elements and components can be altered for clear communication and intentional effects and refine media artworks to improve clarity and purpose. 5.Cr.3.A. a.
Bird's (or Bug's) Eye View	Youth will practice using different view-points & perspectives in photos.	Develop multiple ideas for media artworks using a variety of tools, methods and/or materials. 3.Cr.1.A.a.
Hat Tricks and Magic	Youth will compose creative, unusual photos.	Form, share, and test ideas, plans, and models to prepare for media arts productions. 3.Cr.2.A.a..
The Art of the Selfie	Youth will compose variety of selfies.	Identify and describe how messages are created by components in media artworks. 3.Re.7.A.a.
Taking Great Photographs	Youth will take photos of people, places, things.	Use personal and external resources, such as interests, information, and models, to create media artworks. 3.Cn.10.A.a.

Activity	Description	Fine Arts: Media Arts
Telling a Story	Youth will take a sequence of photos to tell a story.	Examine and use personal and external resources, such as interests, research, and cultural understanding, to create media artworks. 4.Cn.10.A.a.
Black and White	Youth will create black and white photos.	Form, share, and test ideas, plans, and models to prepare for media arts productions. 3.Cn.2.A.a.
You Be the Judge	Youth will evaluate photos using critical thinking.	Identify basic criteria for and evaluate media artworks, considering possible improvements and context. 3.Re.9.A.a.
Exhibiting Your Work	Youth will evaluate photos that represent a body of work.	Exhibit basic creative skills to invent new content and solutions within and through media arts productions. 3.Pr.4.A.a.



Photography 2

Photography: Next Level Photography

Source: 4H.MISSOURI.EDU; [Photography](#)

Activity	Description	Fine Arts: Media Arts
Selecting a Lens	Youth will get to know their camera's capabilities using zoom.	Discuss, test, and assemble ideas, plans, and models for media arts productions, considering the artistic goals and the presentation. 4.Cr.2.A.a.
Special Effects	Youth will practice using different lens filters.	Discuss, test, and assemble ideas, plans, and models for media arts productions, considering the artistic goals and the presentation. 4.Cr.2.A.a.
Lighting the Mood	Youth will practice using light to portray a specific mood.	Identify, describe, and explain how messages are created by components in media artworks. 4.Re.7.A.a.
Reflections	Youth will practice taking photos of reflections.	Identify, describe, and explain how messages are created by components in media artworks. 4.Re.7.A.a.
Out in the Light	Youth will practice taking photos without the flash feature on your camera.	Conceive of original artistic goals for media artworks using a variety of creative methods, such as brainstorming and modeling. 4.Cr.1.A.a.
The Rule of Thirds	Youth will practice using the Rule of Thirds.	Identify and describe how various forms, methods, and styles in media artworks manage audience experience. 5.Re.9.A.a.
The Golden Photos	Youth will practice using the rule of the Golden Triangle and the Golden Rectangle.	Identify and describe how various forms, methods, and styles in media artworks manage audience experience. 5.Re.9.A.a.
Different viewpoints	Youth will practice taking photos from different points of view /perspective.	a. Use personal and external resources, such as interests, information, and models, to create media artworks. 3.Cn.10.A.a.
The Space Tells a Story	Youth will practice crating photos with interesting negative space.	b. Practice and analyze how the emphasis of elements alters effect and purpose in refining and completing media artworks. 3.Cr.3.A.b.
Capture a Candid Photo	Youth will practice capturing unposed, candid shots of a subject or event.	Demonstrate how a variety of academic, arts, and media forms and content may be mixed and coordinated into media artworks, such as narrative, dance, and media. 4.Pr.4.A.a.
Bits and Pieces	Youth will practice taking photos of "bits and pieces" of ordinary objects to create a work of art.	Conceive of original artistic goals for media artworks using a variety of creative methods, such as brainstorming and modeling. 4.Cr.1.A.a.
Panorama	Youth will practice using a camera to create a panorama.	Discuss, test, and assemble ideas, plans, and models for media arts productions, considering the artistic goals and the presentation. 4.Cr.2.A.a.

Activity	Description	Fine Arts: Media Arts
Expression through Color	Youth will use color to create photos that are cool, warm, monochromatic, contrasting and/or complementary.	Identify, describe, and explain how messages are created by components in media artworks. 4.Re.7.A.a.
Pictures with a purpose	Youth will practice taking photos with a specific purpose in mind to teach, instruct or sell a product or service.	b. Identify, describe, and differentiate how various forms, methods, and styles in media artworks manage audience experience. 5.Re.7.A.b.
Exhibiting Your Work	Youth will evaluate photos that represents a body of work.	Determine and compare personal and group interpretation s of a variety of media artworks, considering their intention and context. 5.Re.8.A.a.



Photography 3

Photography: Mastering Photography

Source: 4H.MISSOURI.EDU; [Photography](#)

Activity	Description	Fine Arts: Media Arts
You Take Control - The Mode Dial	Youth will get to know their camera's capabilities using the mode dial.	Develop, present, and test ideas, plans, models, and proposals for media arts productions, considering the artistic goals and audience. 5.Cr.2.A.a.
What's in Focus?	Youth will practice capturing a focal point understanding how camera equipment and depth of field effects the photo.	Develop, present, and test ideas, plans, models, and proposals for media arts productions, considering the artistic goals and audience. 5.Cr.2.A.a.
Low Light Challenges	Youth will practice taking photos in low-light situations.	Determine how elements and components can be altered for clear communication and intentional effects and refine media artworks to improve clarity and purpose. 5.Cr.3.A.b.
You Take Control - Smartphone Exposure Tips	Youth will practice taking photos that help you get the correct exposure.	Determine how elements and components can be altered for clear communication and intentional effects and refine media artworks to improve clarity and purpose. 5.Cr.#.A.b.
Shooting Silhouettes	Youth will practice taking silhouettes.	Envision original ideas and innovations for media artworks using personal experiences and/or the work of others. 5.Cr.1.A.a.



Cake Decorating (Level 1)

4-H Cake Decorating Manual (Level 1)

Source: 4H.MISSOURI.EDU; [Cake Decorating](#)

Activity	Description	Guidance & Counseling	Fine Arts	English Language Arts
The Cake	Youth will practice baking and frosting single layer cakes until they reach mastery.		Experiment with various materials and tools to explore personal interests in a work of art or design. VA:Cr2A.2	Read, infer, and draw conclusions to follow written multi-step directions. 2.R.3.A.e
Frosting the Cake	Youth will experiment with different types of frosting and different frosting designs.		Brainstorm, collaboratively, multiple approaches to an art or design problem. VA:Cr1A.2	Read, infer, and draw conclusions to follow written multi-step directions. 2.R.3.A.e
Professional Cake Decorating Equipment	Youth will experiment with a variety of cake decorating equipment.		Experiment with various materials and tools to explore personal interests in a work of art or design. VA:Cr2A.2	
Borders	Youth will use a practice surface to make all level 1 borders, letters, flowers and leaves and design a stencil and paper pattern.		Create personally satisfying artwork using a variety of artistic processes and materials. VA:Cr2A.3	

Activity	Description	Guidance & Counseling	Fine Arts	English Language Arts
Bake & Decorate	Youth will plan, bake and decorate a minimum of five cakes for special occasions.	Identify new activities and interests to explore. 2.CD7.A.a	Categorize artwork based on a theme or concept for an exhibit. VA:Pr4A.2	



Cake Decorating (Level 2)

4-H Cake Decorating Manual (Level 2)

Source: 4H.MISSOURI.EDU; [Cake Decorating](#)

Activity	Description	Guidance & Counseling	Fine Arts	English Language Arts
Bake & Frost	Youth will practice baking and frosting one and two-layer cakes until they reach mastery.		Create personally satisfying artwork using a variety of artistic processes and materials. VA:Cr2A.3	
Royal Icing	Youth will make royal icing, and practice making flowers and decorations with it.		Create personally satisfying artwork using a variety of artistic processes and materials. VA:Cr2A.3	Read, infer, and draw conclusions to follow written multi-step directions. 2.R.3.A.e
Borders, etc.	Youth will practice Level 2 skills and techniques to reach mastery.		Create personally satisfying artwork using a variety of artistic processes and materials. VA:Cr2A.3	Read, infer, and draw conclusions to follow written multi-step directions. 2.R.3.A.e
Cut the Cake	Youth will experiment with different ways to cut cakes.			Read, infer, and draw conclusions to follow written multi-step directions. 2.R.3.A.e

Activity	Description	Guidance & Counseling	Fine Arts	English Language Arts
Bake & Decorate	Youth will bake and decorate a minimum of five cakes for special occasions using Level 2 skills.	Explain what workers do and need to know in various careers. 3.CD8.A.a	Categorize artwork based on a theme or concept for an exhibit. VA:Pr4A.2	Read, infer, and draw conclusions to follow written multi-step directions. 2.R.3.A.e

Missouri 4-H

Missouri Learning Standards Alignment Guide for 4-H Curriculum



Extension
University of Missouri



Cake Decorating (Level 3)

4-H Cake Decorating Manual (Level 3)

Source: 4H.MISSOURI.EDU; [Cake Decorating](#)

Activity	Description	Guidance & Counseling	Fine Arts	English Language Arts
Bake, Frost, Assemble & Decorate	Youth will bake, frost, assemble and decorate stacked, tiered cakes.		Analyze the various considerations for presenting and protecting art in various locations, indoor or outdoor settings, in temporary or permanent forms, and in physical or digital formats. VA:Pr5A.4	Read, infer, and draw conclusions to use information gained from illustrations and words to demonstrate understanding of the text. 3.R.3.C.c
Borders, etc.	Youth will exhibit mastery of Level 3 skills for borders, lettering, and flowers.		Create personally satisfying artwork using a variety of artistic processes and materials. VA:Cr2A.3	Read, infer, and draw conclusions to use information gained from illustrations and words to demonstrate understanding of the text. 3.R.3.C.c

Activity	Description	Guidance & Counseling	Fine Arts	English Language Arts
Special Effects	Youth will master as many Level 3 special effects as possible.		Experiment and develop skills in multiple art-making techniques and approaches through practice. VA:Cr2A.5	Read, infer, and draw conclusions to use information gained from illustrations and words to demonstrate understanding of the text. 3.R.3.C.c
Disassemble & Cut	Youth will disassemble and cut a stacked or tiered cake and teach someone else to do so.	Explain what workers do and need to know in various careers. 3.CD8.A.a		Speak clearly, audibly, and to the point, using conventions of language when presenting individually or with a group by incorporating descriptive and sequential details in a student-designed or teacher-assigned topic. 4.SL.4.A.c
Bake & Decorate	Youth will bake and decorate a minimum of five cakes (including stacked or tiered) for special occasions using Level 3 skills and the principles and elements of good design.	Explain what workers do and need to know in various careers. 3.CD8.A.a	Experiment and develop skills in multiple art-making techniques and approaches through practice. VA:Cr2A.5	



Cake Decorating (Level 4)

4-H Cake Decorating Manual (Level 4)

Source: 4H.MISSOURI.EDU; [Cake Decorating](#)

Activity	Description	Guidance & Counseling	Fine Arts	English Language Arts
Design Original Patterns	Youth will design various original patterns using the techniques learned in Levels 1 through 3.		Combine ideas to generate an innovative idea for art-making. VA:Cr1A.5	
Decorate	Youth will decorate a cake or cakes using their own designs.		Demonstrate openness in trying new ideas, materials, methods, and approaches in making works of art and design. VA:Cr2A.6	
Experiment	Youth will experiment with scratch recipes and mixes for both cakes and icing and document their findings.		Identify and demonstrate diverse methods of artistic investigation to choose an approach for beginning a work of art. VA:CR1B.5	
Interview	Youth will interview local home cake decorators about markets, pricing, and advertising.	Compare interests and strengths with those of workers in the local community. 4.CD7.A.a		

Activity	Description	Guidance & Counseling	Fine Arts	English Language Arts
Start a Club	Youth will contact (or start) a local cake decorator club in their area.	Demonstrate personal characteristics of a contributing member of the school community. 5.PS1.C.a		
Talk to a Professional	Youth will visit a professional cake decorator for ideas.	Compare interests and strengths with those of workers in the local community. 4.CD7.A.a		
Teach	Youth will teach a lower level cake decorating project.			Speak clearly, audibly, and to the point, using conventions of language when presenting individually or with a group by planning an appropriate presentation based on audience. 5.SL.4.A.b
Expand Your Skills	Youth will expand cake decorating skills to decorating food.		Demonstrate openness in trying new ideas, materials, methods, and approaches in making works of art and design. VA:Cr2A.6	
Attend a Show	Youth will visit a food or restaurant show.	Compare interests and strengths with those of workers in the local community. 4.CD7.A.a		



Sewing 1

Sewing: STEAM Clothing 1 - FUNdamentals

Source: 4H.MISSOURI.EDU; [Clothing](#)

Activity	Description	Fine Arts	Math	Social Studies	Guidance & Counseling	Science
Sew & Tell	Youth will build a portfolio to record their success.	Distinguish between different materials or artistic techniques for preparing artwork for presentation. VA:Pr5A.2			Identify positive characteristics and areas for personal growth. 3.PS1.A.a.	
Get the Notion to Sew	Youth will be able to select the correct tools to use for their sewing project.	Demonstrate an understanding of the safe and proficient use of materials, tools, and equipment for a variety of artistic processes. VA:Cr2B.3				
Sew Colorful: Color Wheel	Youth will be able to identify color relationships around the color wheel.	Make art or design with various materials and tools to explore personal interests, questions, and curiosity. VA:Cr1B.2				
Sew Colorful: Color Schemes	Youth will be able to make color choices that will help plan their sewing projects,	Make art or design with various materials and tools to explore personal interests, questions, and curiosity. VA:Cr1B.2				
Size Up Your Body	Youth will create an accurate list of their body's unique measurements. With this list in hand, they will be able to purchase patterns that fit.					

Activity	Description	Fine Arts	Math	Social Studies	Guidance & Counseling	Science
Fabrics for Sewing	Youth will be able to recognize which fabric type is appropriate for sewing projects.	Apply knowledge of available resources, tools, and technologies to investigate personal ideas through the art-making process. VA: CR1B.3				
Sewing Machine Parts	Youth will be able to describe all of the parts of a sewing machine, thread it and begin sewing.	Demonstrate an understanding of the safe and proficient use of materials, tools, and equipment for a variety of artistic processes. VA:Cr2B.3				
I.D. Me - Textiles Info Cards						
Show Me What You're Made Of?	Youth will be able to differentiate fiber in fabrics based on fabric characteristics such as hand, fiber length, luster, and wrinkle resistance.					Plan and conduct An investigation to describe and classify different kinds of materials by their observable properties. 2.PS1.A.1
Holding It all Together	Youth will be able to successfully identify the differences between woven, knit, and non-woven fabrics and find samples of each.					Plan and conduct An investigation to describe and classify different kinds of materials by their observable properties. 2.PS1.A.1

Activity	Description	Fine Arts	Math	Social Studies	Guidance & Counseling	Science
Fabric Zap!	Youth will generate static electricity using common fabrics and determine which one generates the strongest charge.					Plan and conduct investigations to determine the cause & effect relationship of electric or magnetic interactions between two objects not in contact with each other. 3.PS2.B.1.
Soak It Up!	Youth will be able to identify which fibers are more absorbent.					Analyze data obtained from testing different materials to determine which materials have the properties that are best suited for an intended purpose. 2.PS2.A.1
Raincoats for Cotton Balls	Using the scientific process, youth will discover which fibers have the best water repellency.					Analyze data obtained from testing different materials to determine which materials have the properties that are best suited for an intended purpose. 2.PS2.A.1
Make the Cut	Youth will be able to lay out pattern pieces, pin pattern pieces to the fabric and cut out the pieces.		Interpret products of whole numbers. 3.RA.A.1			

Activity	Description	Fine Arts	Math	Social Studies	Guidance & Counseling	Science
Two Magically Become One!	Youth will learn the basic skill of sewing a plain seam and be able to identify where it is used.	Demonstrate an understanding of the safe and proficient use of materials, tools, and equipment for a variety of artistic processes. VA:Cr2B.3				
How Big Is Your Beach Towel?	Youth will recognize what seam allowances are and how to calculate appropriate allowances.		Solve problems involving adding and subtracting fractions and mixed numbers with like denominators. 4.NF.B.6			
No Fear of Fray	Youth will learn the skill of sewing a finished seam and use critical thinking to be able to identify when to use each finish.	Demonstrate an understanding of the safe and proficient use of materials, tools, and equipment for a variety of artistic processes. VA:Cr2B.3				
Two Sides of the Moon	Youth will be able to sew a curved seam and also use critical thinking to decide when to clip and notch a curved seam.	Demonstrate an understanding of the safe and proficient use of materials, tools, and equipment for a variety of artistic processes. VA:Cr2B.3				
On the Flip Side	Youth will learn how to apply interfacing, sew a facing, and gain an understanding of their importance in garment construction.	Demonstrate an understanding of the safe and proficient use of materials, tools, and equipment for a variety of artistic processes. VA:Cr2B.3				
Basic Hand Sewing Skills	Youth will be able to thread a needle, make a knot, and create a hand sewing sample.	Create personally satisfying artwork using a variety of artistic processes and materials. VA:Cr2A.3				

Activity	Description	Fine Arts	Math	Social Studies	Guidance & Counseling	Science
A Handy Hand Stitch	Youth will learn how to hand sew a hem with a blind stitch and be able to identify the difference between hand stitching and machine stitching.	Create personally satisfying artwork using a variety of artistic processes and materials. VA:Cr2A.3	Solve problems involving adding and subtracting fractions and mixed numbers with like denominators. 4.NF.B.6			
Consider the Source	Youth will be able to identify and select appropriate recycle materials and begin to develop ideas for “upcycling”.	Identify and classify uses of everyday objects through drawings, diagrams, sculptures, or other visual means. VA: Cr2C.1				
What’s the Difference?	Youth will be able to identify businesses that are doing what you are doing and understand why their price points are the way they are.			Compare and contrast private and public goods and services. 3.E.4.A.a.	Compare interests and strengths with those of workers in the global community. 5.CD7.A.a.	
Serving a Purpose	Youth will share your skills with others by donating an item you have constructed.				Reflect on personal roles in the community and identify responsibilities as a community member. 4.PS1.B.a.	
All Smiles	Youth will learn how to model their clothing projects and work on self-presentation.				Recognize positive self-talk and communicate personal thoughts and feelings. 4.PS1.A.a.	



Sewing 2

Sewing: STEAM Clothing 2 – Simply Sewing

Source: 4H.MISSOURI.EDU; [Clothing](#)

Activity	Description	Fine Arts	Math	Science	Personal Finance
Sew & Tell	Youth will build a portfolio to record their success.	Analyze the various considerations for presenting and protecting art in various locations, indoor or outdoor settings, in temporary or permanent forms, and in physical or digital formats. VA:Pr5A.4			
CIA: Closet Investigation Activity	Youth will analyze their own style, what looks best on them, and an appropriate place to wear their outfit.	Formulate an artistic investigation of personally relevant content for creating art. VA:Cr1B.6.			
Sew Helpful Design Basics: Choosing Pints	Youth will analyze important principles and elements of design that will help when choosing printed fabric for a project in a future design career.	Formulate an artistic investigation of personally relevant content for creating art. VA:Cr1B.6.			
A Pressing Matter	Youth will recognize the importance of pressing for all successful sewing projects.	Demonstrate quality craftsmanship through care for and use of materials, tools and equipment. VA:Cr2B.5.			
The Perfect Fit	Youth will know how to work with body measurements to adjust patterns for perfect fit.		Solve problems involving the four arithmetic operations with rational numbers. 7.NS.A.3.1		

Activity	Description	Fine Arts	Math	Science	Personal Finance
Don't Quit. Try Knits!	Youth will be able to choose a pattern appropriate for knit materials, cut out the pattern, and sew the knit material.	Formulate an artistic investigation of personally relevant content for creating art. 6.Cr1B.1.			
Show Me What You're Made Of!	Youth will be able to identify the similarities and differences between specialty and common fibers.			Plan and conduct an investigation to describe and classify different kinds of materials by their observable properties 2. PS1.A.1	
Burning Up!	Youth will analyze burn properties and how burn characteristics can be used to identify fiber classes.			Analyze and interpret data on the properties of substances before and after the substances interact to determine if a chemical reaction has occurred. 6-8.PS1.A.2	
Opps! Did I Do That?	Youth will be able to identify the effects of common household chemicals on fibers.			Analyze and interpret data on the properties of substances before and after the substances interact to determine if a chemical reaction has occurred. 6-8.PS1.A.2	
Break Down	Youth will be able to identify the difference between the decomposition of natural and synthetic fiber			Analyze and interpret data on the properties of substances before and after the substances interact to determine if a chemical reaction has occurred. 6-8.PS1.A.2	
Fade Away	Youth will be able to describe how UV light effects dyed natural and synthetic fibers.			Develop and use a model to describe that waves are reflected, absorbed, or transmitted through various materials. 6-8.PS4.A.2	

Activity	Description	Fine Arts	Math	Science	Personal Finance
Lesson Tension = Cleaner Clothes	Youth will be able to explain how detergent helps clean clothing.			Analyze and interpret data on the properties of substances before and after the substances interact to determine if a chemical reaction has occurred. 6-8.PS1.A.2	
Holding It All Together	Youth will be able to evaluate the characteristics of specialty fabrics to make appropriate fabric choices.			Plan and conduct an investigation to describe and classify different kinds of materials by their observable properties 2. PS1.A.1	
I'm Melting. I'm Melting!	Youth will be able to identify fabric colors that reflect or absorb sunlight.			Construct, use, and present arguments to support the claim that when the kinetic energy of an object changes, energy is transferred to or from the object. 6-8.PS3.B.1	
On the Edge of So Many Possibilities	Youth will be able to identify when to use various seam finishes and use them in projects.	Demonstrate quality craftsmanship through care for and use of materials, tools, and equipment. VA:Cr2B.5.			
Out of the Box and into Curves	Youth will be able to identify shaping elements and their applications and sew darts and gathers.	Demonstrate quality craftsmanship through care for and use of materials, tools, and equipment. VA:Cr2B.5.			
The Inventor that Changed Fashion History	Youth will be able to create a buttonhole, sew on a button and identify the best button and buttonhole for a garment.	Demonstrate quality craftsmanship through care for and use of materials, tools, and equipment. VA:Cr2B.5.			
Clip It or Snip It	Youth will be able to clip seams around curves and learn allowances and	Demonstrate quality craftsmanship through care for and use of			

Activity	Description	Fine Arts	Math	Science	Personal Finance
	grade seams for bulky materials.	materials, tools and equipment. VA:Cr2B.5.			
Inch by Inch. Stith by Stitch	Youth will be able to hand sew an invisible hem.	Demonstrate quality craftsmanship through care for and use of materials, tools, and equipment. VA:Cr2B.5.			
Interfacing	Youth will recognize the importance of interfacing and be able to use different methods of interfacing in garments.	Demonstrate quality craftsmanship through care for and use of materials, tools, and equipment. VA:Cr2B.5.			
A Faster Way In and Out!	Youth will be able to create a lap zipper and know the proper zipper type for items they will make in the future.	Demonstrate quality craftsmanship through care for and use of materials, tools, and equipment. VA:Cr2B.5.			
Pick a Pocket	Youth will discover many types of pockets and construct a patch pocket.	Demonstrate quality craftsmanship through care for and use of materials, tools, and equipment. VA:Cr2B.5.			
Achieve the Sleeve	Youth will be able to construct a basic set-in sleeve, understand the concept "ease stitching", and be able to ease shape to fit another.	Demonstrate quality craftsmanship through care for and use of materials, tools, and equipment. VA:Cr2B.5.			
Slap on the Cuffs	Youth will be able to identify the purpose of plackets in garment construction, know when and how to add a placket, and be able to construct a cuff.	Demonstrate quality craftsmanship through care for and use of materials, tools, and equipment. VA:Cr2B.5.			

Activity	Description	Fine Arts	Math	Science	Personal Finance
Let's Get Collared	Youth will be able to recognize different collar types, construct a basic collar, and analyze the results of an object analysis.	Demonstrate quality craftsmanship through care for and use of materials, tools, and equipment. VA:Cr2B.5.			
Understand the Waistband	Youth will know the importance of well-fitting waistbands, and also what makes a comfortable and durable waistband.	Demonstrate quality craftsmanship through care for and use of materials, tools, and equipment. VA:Cr2B.5.			
Getting Noticed	Youth will be able to get your products noticed online by using the available resources.	Demonstrate quality craftsmanship through care for and use of materials, tools, and equipment. VA:Cr2B.5.			
How Low Can You go?	Youth will be able to keep track of your purchases to apply the appropriate markup percentage to make a profit.				Differentiate between income and expense. PF.III.1.A.



Sewing 3

Sewing: STEAM Clothing 3 – A Stitch FurtherSource: 4H.MISSOURI.EDU; [Clothing](#)

Activity	Description	Fine Arts	Math	Science	Personal Finance
Show & Tell	Youth will be able to build a portfolio to record success.	Analyze the various considerations for presenting and protecting art in various locations, indoor or outdoor settings, in temporary or permanent forms, and in physical or digital formats. VA:Pr5A.4			
Serge to Finish	Youth will be able to use a serger and identify its importance in clothing construction.	Demonstrate quality craftsmanship through care for and use of materials, tools and equipment. VA:Cr2B.5.			
Picture Perfect Pressing	Youth will be able to press using a variety of pressing tools.	Demonstrate quality craftsmanship through care for and use of materials, tools and equipment. VA:Cr2B.5			
Feeling Hot or Not	Youth will be able to identify and test fabric insulation properties.		Use dot plots, histograms and box plots to display an interpret numerical data. 6.DSP.B.4a	Plan and conduct an investigation to determine the relationships among the energy transferred, the type of matter, the mass, and the change in the temperature of the sample. 6-8.PS3.A.4	

Activity	Description	Fine Arts	Math	Science	Personal Finance
Who's in Your Laundry?	Youth will be able to make laundry detergent and compare it to commercial laundry detergents.			Analyze and interpret data on the properties of substances before and after the substances interact to determine if a chemical reaction has occurred. 6-8.PS1.A.2	
Can Clean Be Green	Youth will be able to identify how laundry additives affect detergent cleaning abilities.			Analyze and interpret data on the properties of substances before and after the substances interact to determine if a chemical reaction has occurred. 6-8.PS1.A.2	
Bathing Beauty	Youth will be able to test and identify which fabrics are the best choice for creating a swimsuit.			Analyze and interpret data on the properties of substances before and after the substances interact to determine if a chemical reaction has occurred. 6-8.PS1.A.2	
Fit to Sew	Youth will be able to create a basic bodice, skirt (or pants), and sleeve pattern that are a perfect fit for their own body.	Demonstrate quality craftsmanship through care for and use of materials, tools and equipment. VA:Cr2B.5			
Ins and Outs of lining	Youth will be able to determine when garments require lining and the best types of linings for each application.	Demonstrate quality craftsmanship through care for and use of materials, tools and equipment. VA:Cr2B.5			
Specialty Fabrics	Youth will be able to press challenging fabrics like wool and velvet.	Demonstrate quality craftsmanship through care for and use of materials, tools and equipment. VA:Cr2B.5			

Activity	Description	Fine Arts	Math	Science	Personal Finance
Calculate Yardage of Repeat Patterns	Youth will be able to calculate the amount of patterned fabric needed for a project.		Solve problems involving the four arithmetic operations with rational numbers. 7.NS.A.3		
Sewing Savvy: Garment Patterns, Fabrics and Prints	Youth will be able to analyze patterns based on line, shape, space, and mass, and choose fabrics that complement those patterns.	Demonstrate quality craftsmanship through care for and use of materials, tools and equipment. VA:Cr2B.5			
Green Thinking	Youth will recognize fabrics and notions to repurpose for projects, avoid fabric waste, and think green.	Explain environmental implications of conservation, care, and clean-up of art materials, tools and equipment. VA:Cr2B.6			
Top – Notch	Youth will be able to sew more advanced seam finishes and be able to identify when to use them.	Demonstrate quality craftsmanship through care for and use of materials, tools and equipment. VA:Cr2B.5			
Boning.	Youth will be able to install boning using two methods	Demonstrate quality craftsmanship through care for and use of materials, tools and equipment. VA:Cr2B.5			
Rolled Hem	Youth will be able to construct three types of rolled hems.	Demonstrate quality craftsmanship through care for and use of materials, tools and equipment. VA:Cr2B.5			
Tailoring Techniques	Youth will be able to use tailoring techniques in garment construction.	Demonstrate quality craftsmanship through care for and use of materials, tools and equipment. VA:Cr2B.5			
Lips that Shouldn't Pucker Up!	Youth will be able to create a bound buttonhole and identify the various types of uses for it.	Demonstrate quality craftsmanship through care for and use of materials, tools and equipment. VA:Cr2B.5			
Couture Techniques	Youth will be able to create a Hong Kong seam finish.	Demonstrate quality craftsmanship through care for and use of			

Activity	Description	Fine Arts	Math	Science	Personal Finance
Hong Kong Finish		materials, tools and equipment. VA:Cr2B.5			
Couture Techniques Hand – Picked Zipper	Youth will be able to construct a hand-picked zipper and know when to use this technique.	Demonstrate quality craftsmanship through care for and use of materials, tools and equipment. VA:Cr2B.5			
Couture Techniques French Tacks	Youth will be able to construct a French tack and use it in a project.	Demonstrate quality craftsmanship through care for and use of materials, tools and equipment. VA:Cr2B.5			
Trademark & patent Laws	Youth will have a basic understanding of U.S. Trademark and Patent opportunities in order to use sewing skills in a business.	Demonstrate awareness of practices, issues, and ethics of appropriation, fair use , copyright, open source, and creative commons as they apply to creating works of art and design. VA:Cr2B.8			
Sew Your Way to a Business Plan	Youth will be able to identify the importance of a business plan and how to start thinking about a plan of their own.				Create a budget that includes savings goals, emergency funds, fixed expenses and variable expenses. PF.III.1.C
A Little Bit of Chili Pepper	Youth will analyze how accessories affect an outfit and create a successful look.	Analyze the various considerations for presenting and protecting art in various locations, indoor or outdoor settings, in temporary or permanent forms, and in physical or digital formats. VA:Pr5A.4			



Clothing: Shopping

Clothing: Shopping in Style

Source: 4H.MISSOURI.EDU; [Clothing](#)

Activity	Description	English Language Arts	Guidance & Counseling	Health	Personal Finance
Clothing Choices & Your Style	Youth will explore how personality and feelings affect clothing choices.		Recognize positive self- talk and communicate personal thoughts and feelings. 4.PS1.A.a		
Impressions Count	Youth will be able to understand how clothing and appearance communicate nonverbally.		Demonstrate respect for others' personal opinions and ideas. 4.PS2.A.a		
Body Image	Youth will understand the importance of accepting your body as it is and how to develop personal style.		Demonstrate the personal characteristics to maintain a positive self- concept. 5.PS1.A.a		

Activity	Description	English Language Arts	Guidance & Counseling	Health	Personal Finance
Fads & Fashion	Youth will understand fads and fashion trends, and apply to apparel decisions.	Apply research process to use organizational features of print and digital sources efficiently to locate information. 4.W.3.A.d			
Culture & Clothing	Youth will research ethnic and cultural influences on clothing.	Apply research process to use organizational features of print and digital sources efficiently to locate information. 4.W.3.A.d			
Creating the Look for Your Body Type	Youth will be able to determine figure type and evaluate body measurements.			Demonstrate the personal characteristics to maintain a positive self-concept. 5.PS1.A.a	
Design Principles & Clothing Choices – Personal Colors, Color, and You	Youth will select flattering colors that compliment their skin, hair, and eyes.			Demonstrate the personal characteristics to maintain a positive self-concept. 5.PS1.A.a	

Activity	Description	English Language Arts	Guidance & Counseling	Health	Personal Finance
Design Elements & Clothing Choices – Using Design Lines to Camouflage	Youth will use design lines to enhance their appearance.		Demonstrate the personal characteristics to maintain a positive self-concept. 5.PS1.A.a		
Design Elements & Clothing Choices—Color and Texture	Youth will understand the impact of color and fabric on clothing design.		Demonstrate the personal characteristics to maintain a positive self-concept. 5.PS1.A.a		
Mix, Match & Multiply	Youth will expand wardrobe choices by mixing and matching.		Identify and develop personal planning strategies to manage individual, family, and school responsibilities . 6.PS1.B.a		
Clothing Inventory	Youth will conduct a clothing inventory and be able to identify clothing needs.		Identify and develop personal planning strategies to manage individual, family, and school responsibilities . 6.PS1.B.a		

Activity	Description	English Language Arts	Guidance & Counseling	Health	Personal Finance
Your Money & Your Clothes	Youth will select quality clothing at reasonable prices.		Identify and develop personal planning strategies to manage individual, family, and school responsibilities .		Apply a rational decision making process to satisfy wants. PF.I.1.B
			6.PS1.B.a		
The Influence of Advertising	Youth will make informed decisions about clothing purchases by understanding the influences of advertising messages.			Analyze marketing and advertising techniques that influence consumer decisions. 8.ME.3.A.a	Apply a rational decision making process to satisfy wants. PF.I.1.B
Clothing Prices	Youth will determine reasonable prices for quality clothing.				Apply a rational decision making process to satisfy wants. PF.I.1.B
Selecting Quality Clothing	Youth will see the value of reasonably priced quality clothing.				Compare the features, durability and maintenance costs of goods. PF.III.3.B

Activity	Description	English Language Arts	Guidance & Counseling	Health	Personal Finance
Shopping Options	Youth will select needed quality clothing at a reasonable price from a variety of sources.		Identify and develop personal planning strategies to manage individual, family, and school responsibilities . 6.PS1.B.a		Apply a rational decision making process to satisfy wants. PF.I.1.B
Will It Be Cash or Credit	Youth will understand various payment options and make sound choices.				Compare sources of consumer credit such as credit cards consumer loans, rent-to-own, title and payday loans. PF.V.1.B
Clothing Care & Repair—What's in a Label?	Youth will understand where to find care labels in clothing and what care symbols mean.	Read and comprehend informational text independently and proficiently. 6.R.3.D.a			
Clothing Care & Repair—In the Wash	Youth will be able to find answers to laundry stain removal questions.	Read and comprehend informational text independently and proficiently. 6.R.3.D.a	Identify and develop personal planning strategies to manage individual, family, and school responsibilities . 6.PS1.B.a		

Activity	Description	English Language Arts	Guidance & Counseling	Health	Personal Finance
Clothing Care & Repair—In for Repairs	Youth will understand how to complete simple clothing repairs.	Read and comprehend informational text independently and proficiently. 6.R.3.D.a	Identify and develop personal planning strategies to manage individual, family, and school responsibilities . 6.PS1.B.a		
Clothing Care & Repair— Hang or Fold	Youth will understand the best way to store various types of clothing.		Identify and develop personal planning strategies to manage individual, family, and school responsibilities . 6.PS1.B.a		
Finishing Touches— Facial Palette	Youth will understand the function and purpose of cosmetics.		Demonstrate the personal characteristics to maintain a positive self- concept. 5.PS1.A.a		
Finishing Touches— Underneath It All	Youth will be able to select undergarments that enhance body image and garment fit.		Demonstrate the personal characteristics to maintain a positive self- concept. 5.PS1.A.a		

Activity	Description	English Language Arts	Guidance & Counseling	Health	Personal Finance
Finishing Touches— In the Spotlight	Youth will learn to present an outfit in a confident manner.	Develop informative/ex planatory writing to examine a topic with relevant facts, examples, and details. 6.W.2.A.b	Demonstrate the personal characteristics to maintain a positive self- concept. 5.PS1.A.a		



Clowning

**The Art of Clowning: Leaders Guide, Eight Lesson Format
and The Art of Clowning Members Guide**Source: 4H.MISSOURI.EDU; [Clowning Project](#)

Activity	Description	Fine Arts	Guidance & Counseling
Lesson 1: Design Your Clown Face	Youth will learn about types of clown faces and begin to design their own clown face.	Identify physical qualities that might reveal a character's inner traits in the imagined world of a drama/theatre work. TH:Cr1A.a.5	
Lesson 2: Applying and Removing Makeup	Youth will practice applying and removing makeup to create their own clown face.	Identify physical qualities that might reveal a character's inner traits in the imagined world of a drama/theatre work. TH:Cr1A.a.5	
Lesson 3: Critique Faces and Use Props	Youth will present their clown face and provide constructive criticism for each other.	Assess how technical elements represent the theme of a drama/theatre work. TH:P9A.b.5	Demonstrate respect for others' personal opinions and ideas. 4.PS2.A.a
Lesson 4: Skits and Pantomimes	Youth will practice skits and using props.	Present drama/theatre work informally to an audience. TH:Pr6A.a.5	

Activity	Description	Fine Arts	Guidance & Counseling
Lesson 5: Clown Etiquette and Balloon Animals	Youth will learn about and practice clown etiquette.	Demonstrate appropriate audience etiquette for the venue, purpose, and style. TH:Pr5A.c.5	Demonstrate respect for others' personal opinions and ideas. 4.PS2.A.a
Lesson 6: Costumes and Practice	Youth will develop their costume, practice balloon artistry and continue to practice their clowning act.	Identify physical qualities that might reveal a character's inner traits in the imagined world of a drama/theatre work. TH:Cr1A.a.5	
Lesson 7: On the Job Training	Youth will perform for an audience.	Present drama/theatre work informally to an audience. TH:Pr6A.a.5	
Lesson 8: Graduation	Youth will perform and celebrate.	Present drama/theatre work informally to an audience. TH:Pr6A.a.5	



Filmmaking

Filmmaking: Movie Magic

Source: 4H.MISSOURI.EDU; [Filmmaking](#)

Activity	Description	English Language Arts	Fine Arts
Know Your Camera	Youth will know the function of various parts of a camera.		Explore uses of materials and tools to create works of art or design. VA:CR2A.1
Know Your Tripod	Youth will know and use the parts of a tripod.		Explore uses of materials and tools to create works of art or design. VA:CR2A.1
Follow the Leader	Youth will practice different shot types and techniques.		Create personally satisfying artwork using a variety of artistic processes and materials. VA:CR2A.3
Get My Point!	Youth will practice filming and downloading with a video camera to communicate a message.		Develop a work of art based on observations of surroundings. VA:CR10A.3
Near and Far, Loud or Clear	Youth will understand the importance of the onboard microphone and how to operate it effectively.		Create personally satisfying artwork using a variety of artistic processes and materials. VA:CR2A.3

Activity	Description	English Language Arts	Fine Arts
What is the Story Here?	Youth will create stories using a storyboard.	<p>Write fiction or nonfiction narratives and poems that establish and organize an event sequence to establish a beginning/middle/end.</p> <p>3.W.2.C.c</p>	
Scripting	Youth will use a template to complete a script for their video.	<p>Write fiction or nonfiction narratives and poems that establish and organize an event sequence that unfolds naturally to establish a beginning/middle/end.</p> <p>4.W.2.C.c</p>	
Visualizing the Story	Youth will identify all the shots for the movie in order to tell the story visually.		<p>Experiment and develop skills in multiple art-making techniques and approaches through practice.</p> <p>VA:Cr2A.5</p>
What's the Food on Your Plate?	Youth will conduct and film an interview.	<p>Speak clearly, audibly, and to the point, using conventions of language when presenting individually or with a group by incorporating descriptive and sequential details in a student designed or teacher-assigned topic.</p> <p>4.SL.4.A.c</p>	

Activity	Description	English Language Arts	Fine Arts
Interview Savvy	Youth will choose a topic and prepare and conduct an interview on video.	<p>Develop and apply effective listening skills and strategies in formal and informal settings by posing and responding to specific questions to clarify or following up on information and making comments that contribute to the discussion to link to the remarks of others.</p> <p>5.SL.1.A.b</p>	
Art of Digital Storytelling	Youth will practice the seven elements of digital storytelling.	<p>Speak clearly, audibly, and to the point, using conventions of language when presenting individually or with a group by incorporating descriptive and sequential details in a student designed or teacher-assigned topic.</p> <p>4.SL.4.A.c</p>	<p>Experiment and develop skills in multiple art-making techniques and approaches through practice.</p> <p>VA:Cr2A.5</p>
Gathering the Media	Youth will gather and process resources for their movie.		<p>Experiment and develop skills in multiple art-making techniques and approaches through practice.</p> <p>VA:Cr2A.5</p>
Bringing It All Together	Youth will experiment with different techniques while editing their footage.		<p>Experiment and develop skills in multiple art-making techniques and approaches through practice.</p> <p>VA:Cr2A.5</p>
Finishing Your Film	Youth will practice using effects, transitions and titles.		<p>Experiment and develop skills in multiple art-making techniques and approaches through practice.</p> <p>VA:Cr2A.5</p>

Activity	Description	English Language Arts	Fine Arts
Soundscapes	Youth will experiment with the use of sound.		Experiment and develop skills in multiple art-making techniques and approaches through practice. VA:Cr2A.5
Distributing Your Movie	Youth will export their movie for sharing with others.		Experiment and develop skills in multiple art-making techniques and approaches through practice. VA:Cr2A.5
Getting Your Message Out There	Youth will create a public service announcement.	Speak clearly, audibly, and to the point, using conventions of language when presenting individually or with a group by incorporating descriptive and sequential details in a student designed or teacher-assigned topic. 4.SL.4.A.c	
Documentaries	Youth will produce a mini-documentary.		Identify, describe, and visually document places and/or objects of personal significance. VA:Cr2.5
4-H Action Movies	Youth will create an action movie.		Identify, describe, and visually document places and/or objects of personal significance. VA:Cr2.5
Vacation	Youth will create a vacation movie.		Identify, describe, and visually document places and/or objects of personal significance. VA:Cr2.5

Activity	Description	English Language Arts	Fine Arts
Video Journalism	Youth will design a videotaped news story.	<p>Speak clearly, audibly, and to the point, using conventions of language when presenting individually or with a group by incorporating descriptive and sequential details in a student designed or teacher-assigned topic.</p> <p>4.SL.4.A.c</p>	<p>Identify, describe, and visually document places and/or objects of personal significance.</p> <p>VA:Cr2.5</p>

Healthy Living

Missouri 4-H Projects

We are working hard to get all the project curriculums aligned to Missouri State Learning Standards. This document will be updated frequently. Here's what is available so far:

Projects with MLS aligned in this manual:

- Foods/Nutrition/Preservation
 - Cooking (level 1—4)
- Health and Fitness
 - First Aid
 - Staying Healthy
- Save Your Brain (not a project, but a resource for many projects)

Projects available (MSL alignment coming soon):

- Foods/Nutrition/Preservation
 - Food Science (level 1—3)
 - International Foods
 - Preservation
 - Freezing
 - Drying
 - Boiling Water Canning
 - Pressure Canning
 - Breads
- Health and Fitness
 - Keeping Fit



Foods (Level 1)

Foods: Cooking 101 (Level 1)Source: 4H.MISSOURI.EDU; [Food Nutrition Projects](#)

Activity	Description	English Language Arts	Health	Science
Explore My Plate	Youth will explore healthy food choices, analyze their current diet, and set goals.		Identify healthy food choices in each of the five food groups. 2.ME.2.A.a	
Demonstrate Your Knowledge of Kitchen Safety Basics	Youth will review food safety and kitchen safety rules and demonstrate the use of those rules.	Speak clearly, audibly, and to the point, using conventions of language when presenting individually or with a group by explaining a topic while maintaining eye contact with audience. 2.SL.4.A.a	Illustrate proper food safety procedures. 1.ME.2.D.a	
Experiment! Testing for Microwave-Safe Dishes	Youth will experiment to identify microwave-safe dishes.			Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs. 2.ETS1.C.1
Experiment! How Much Flour Will a Measuring Cup Hold?	Youth will experiment with different methods of measuring			Analyze data from tests of two objects designed to solve the same problem to compare the

Activity	Description	English Language Arts	Health	Science
	flour to determine the best method.			strengths and weaknesses of how each performs. 2.ETS1.C.1
Demonstrate Your Knowledge on Cooking “How To” Basics	Youth will plan and give a demonstration to show knowledge of cooking “how to” basics.	Speak clearly, audibly, and to the point, using conventions of language when presenting individually or with a group by explaining a topic while maintaining eye contact with audience. 2.SL.4.A.a	Illustrate proper food safety procedures. 1.ME.2.D.a	
Recipes	Youth will follow food safety basics and step-by-step directions to complete a variety of recipes.	Read, infer, and draw conclusions to follow written multi-step directions. 2.R.3.A.e	Illustrate proper food safety procedures. 1.ME.2.D.a	



Foods (Level 2)

Foods: Cooking 201 (Level 2)Source: 4H.MISSOURI.EDU; [Food Nutrition Projects](#)

Activity	Description	English Language Arts	Guidance & Counseling	Health	Science
Demonstrate Your Knowledge of Food and Kitchen Safety	Youth will review food safety and kitchen safety rules and demonstrate the use of those rules.	Speak clearly, audibly, and to the point, using conventions of language when presenting individually or with a group by using efficient presentation skills with available resources.		Describe proper food guidelines and storage. 4.ME.2.D.a	
Demonstrate Your Knowledge on Cooking "How To" Basics	Youth will plan and give a demonstration to show knowledge of cooking "how to" basics.	Speak clearly, audibly, and to the point, using conventions of language when presenting individually or with a group by using efficient presentation skills with	Apply personal safety strategies as they relate to different situations. 2.PS3.B.a		

Activity	Description	English Language Arts	Guidance & Counseling	Health	Science
		available resources. 4.SL.4.A.b			
Understanding Nutrition Facts Labels	Youth will analyze a nutrition facts label for a soft drink.			Identify the basic parts of the Nutrition Facts label. 2.ME.2.C.a	
Vegetable and Fruit Group	Youth will review vegetable and fruit cooking basics and prepare using a recipe.	Read, infer, and draw conclusions to follow written multi-step directions. 2.R.3.A.e		Recognize the four basic rules of food handling. 2.ME.2.D.a	
Grains Group	Youth will review grains cooking basics, prepare using a recipe, and prepare different types of rice using different cooking methods and compare the results.	Read, infer, and draw conclusions to follow written multi-step directions. 2.R.3.A.e			Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs. 2.ETS1.C.1

Activity	Description	English Language Arts	Guidance & Counseling	Health	Science
Protein Foods Group	Youth will review protein foods cooking basics, prepare proteins using a recipe, and prepare bacon using different cooking methods and compare the results.	Read, infer, and draw conclusions to follow written multi-step directions. 2.R.3.A.e		Recognize the four basic rules of food handling. 2.ME.2.D.a	Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs. 2.ETS1.C.1
Dairy Group	Youth will review dairy cooking basics and prepare using a recipe.	Read, infer, and draw conclusions to follow written multi-step directions. 2.R.3.A.e		Recognize the four basic rules of food handling. 2.ME.2.D.a	
You're Ready to Prepare a Meal	Youth will plan a meal for their family.			Use the MyPyramid.gov website to construct a balanced menu. 5.ME.2.B.a	



Foods (Level 3)

Foods: Cooking 301 (Level 3)Source: 4H.MISSOURI.EDU; [Food Nutrition Projects](#)

Activity	Description	English Language Arts	Health	Science
Plan a Party!	Youth will follow multi-step directions and complete check lists and timelines to plan a party.	Read, infer, and draw conclusions to interpret details from procedural text to complete a task, solve a problem, or perform an action. 5.R.3.A.b		
Grains Group: Experiment with Flour	Youth will review types of bread, types of flour and how to shape breads and rolls then bake and evaluate bread and rolls.	Read, infer, and draw conclusions to interpret details from procedural text to complete a task, solve a problem, or perform an action. 5.R.3.A.b	Describe proper food guidelines and storage. 4.ME.2.D.a	
Grains Group: Experiment with Kneading	Youth will experiment with different kneading techniques and compare the results.	Read, infer, and draw conclusions to interpret details from procedural text to complete a task, solve a problem, or perform an action. 5.R.3.A.b		Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved. 5.ETS1.C.1

Activity	Description	English Language Arts	Health	Science
Grains Group: Experiment with Yeast	Youth will experiment with different types of yeast and compare the results.	Read, infer, and draw conclusions to interpret details from procedural text to complete a task, solve a problem, or perform an action. 5.R.3.A.b		Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved. 5.ETS1.C.1
Grains Group: Experiment with Butter	Youth will learn to make butter and teach others.	Speak clearly, audibly, and to the point, using conventions of language when presenting individually or with a group by planning an appropriate presentation based on audience. 5.SL.4.A.b		
Vegetable and Fruit Groups	Youth will review vegetable and fruit cooking basics and prepare using a recipe.	Read, infer, and draw conclusions to interpret details from procedural text to complete a task, solve a problem, or perform an action. 5.R.3.A.b	Identify sources and functions of specific vitamins and minerals that are critical for youth. 5.ME.2.A.a	
Protein Foods Group	Youth will review methods of cooking proteins and prepare using a recipe.	Read, infer, and draw conclusions to interpret details from procedural text to complete a task, solve a problem, or perform an action. 5.R.3.A.b	Describe proper food guidelines and storage. 4.ME.2.D.a	

Activity	Description	English Language Arts	Health	Science
Dairy Group: Experiment with Cheese	Youth will prepare and participate in a cheese tasting to compare flavors.	Read, infer, and draw conclusions to interpret details from procedural text to complete a task, solve a problem, or perform an action. 5.R.3.A.b		Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved. 5.ETS1.C.1
Desserts: Introduction to Cakes	Youth will learn how to prepare cakes and prepare using a recipe.	Read, infer, and draw conclusions to interpret details from procedural text to complete a task, solve a problem, or perform an action. 5.R.3.A.b		



Foods (Level 4)

Foods: Cooking 401 (Level 4)Source: 4H.MISSOURI.EDU; [Food Nutrition Projects](#)

Activity	Description	English Language Arts	Guidance & Counseling	Science
Spices and Herbs	Youth will experiment with a variety of herbs and spices and record their findings.	Read, infer, and draw conclusions to interpret details from procedural text to complete a task, solve a problem, or perform an action. 5.R.3.A.b		
Celebration Meals	Youth will utilize a check list and a timeline to plan a celebration meal.	Read, infer, and draw conclusions to interpret details from procedural text to complete a task, solve a problem, or perform an action. 5.R.3.A.b	Develop strategies to balance family, school, and community roles. 5.PS1.B.a	
Grains Group	Youth will follow recipes to make flatbreads, Ethnic yeast breads and experiment with whole grains.	Read, infer, and draw conclusions to interpret details from procedural text to complete a task, solve a problem, or perform an action. 5.R.3.A.b		

Activity	Description	English Language Arts	Guidance & Counseling	Science
Vegetable and Fruit Groups	Youth will learn about and experiment with fruits from around the world, potato dishes, and stir frying.	Read, infer, and draw conclusions to interpret details from procedural text to complete a task, solve a problem, or perform an action. 5.R.3.A.b		
Protein Foods Group	Youth will learn about and experiment with roasting, braising, and stewing meats; and cooking beans and peas.	Read, infer, and draw conclusions to interpret details from procedural text to complete a task, solve a problem, or perform an action. 5.R.3.A.b		
Dairy Group	Youth will experiment with ice cream, custards and pudding.	Read, infer, and draw conclusions to interpret details from procedural text to complete a task, solve a problem, or perform an action. 5.R.3.A.b		Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved. 5.ETS1.C.1
Desserts	Youth will experiment with making various types of candy, pastries, and foam cakes and evaluate their products.	Read, infer, and draw conclusions to interpret details from procedural text to complete a task, solve a problem, or perform an action. 5.R.3.A.b		Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved. 5.ETS1.C.1



International Foods

International Foods: Food, Culture, & Reading Facilitator's Guide (Grades 4-6)

Source: [Missouri 4-H Website](http://Missouri4H.org)

Activity	Description	English Language Arts	Health	Social Studies
United States and MyPyramid: Visiting Our Small World	Youth will identify foods from around the world.	Apply research process to select relevant resources, literary and informational. 5.W.3.A.d. Write informative/explanatory texts that: use specific, relevant, and accurate words that are suited to the topic, audience, and purpose. 4.W.2.B.c.		Research an appropriate social studies' question and share results with an audience. 4.TS.7.F.a.
United States and MyPyramid: Get Healthy	Youth will describe the purpose of MyPyramid and identify a variety of healthy foods from around the world.		Describe the relationship between food intake and energy. 4.ME.2.A.b.	
United States and MyPyramid: Top It!	Youth will create a healthy snack using different ingredients.	Read, infer, and draw conclusions to follow and explain a set of written multi-step directions. 3.R.3.A.d.	Identify a healthy snack from each food group. 2.ME.2.B.a.	

Activity	Description	English Language Arts	Health	Social Studies
United States and MyPyramid: Get Moving!	Youth will play and recognize daily physical activity as part of healthy living.		Explain how healthy behaviors enhance the body's basic lines of defense (e.g., sleep, physical activity, healthy food choices). 4.RA.1.B.a.	
United States and MyPyramid: Traveling Foods	Youth will recognize the different origins of the foods we eat.	Read, infer and draw conclusions to use multiple text features and graphics to locate information and gain an overview of the contents of text information. 5.R.3.A.a.		Locate the major landforms of the world. 6-8.GEO.1.G.F.
United States and MyPyramid: Take-home Activity	Youth will explore MyPyramid at home.	Read, infer, and draw conclusions to follow and explain a set of written multi-step directions. 3.R.3.A.d.	Identify a healthy snack from each food group. 2.ME.2.B.a.	
Mexico and Grains: Tamale Turmoil	Youth will make a recipe box for foods used at holiday celebrations.	Explain relevant connections between text to world (text ideas regarding experiences in the world by demonstrating an awareness that literature reflects a cultural and historical time frame). 4.R.1.C.b.	Explain the importance of nutrition facts on food labels in making healthy selections. 3.ME.2.C.a.	
Mexico and Grains: Finding Whole Grains	Youth will identify the Grain Group on My Pyramid.	Read, infer and draw conclusions to use multiple text features and graphics to locate information and gain an overview of the contents of text information. 5.R.3.A.a.	Explain the importance of nutrition facts on food labels in making healthy selections. 3.ME.2.C.a.	

Activity	Description	English Language Arts	Health	Social Studies
Mexico and Grains: Cooking in Mexico	Youth will create a healthy snack using different ingredients.	Read, infer, and draw conclusions to follow and explain a set of written multi-step directions. 3.R.3.A.d.	Identify a healthy snack from each food group. 2.ME.2.B.a.	
Mexico and Grains: Fun in Mexico! Balero!	Youth will play and recognize daily physical activity is part of healthy living.	Read, infer, and draw conclusions to follow and explain a set of written multi-step directions. 3.R.3.A.d.	Explain how healthy behaviors enhance the body's basic lines of defense (e.g., sleep, physical activity, healthy food choices). 4.RA.1.B.a.	
Mexico and Grains: May I Take Your Order?	Youth will identify countries where grains, used for sandwiches, are grown and eaten.	Apply research process to select relevant resources, literary and informational. 5.W.3.A.d.		Research an appropriate social studies' question and share results with an audience. 4.TS.7.F.a.
Mexico and Grains: Take-home Activity	Youth will use food labels to identify whole grain and refined grain products.		Explain the importance of nutrition facts on food labels in making healthy selections. 3.ME.2.C.a.	
Russia and Vegetables: Tales of Magic Frying Pan	Youth will communicate a story that provides a message.	Write fiction or non-fiction narratives and poems that establish a setting and situation/topic and introduce a narrator and/or characters. 5.W.2.C.a.		
Russia and Vegetables: Vegetable Rumba	Youth will Access information from MyPyramid to understand that a variety of vegetables are necessary for a healthy diet.		Explain the importance of nutrition facts on food labels in making healthy selections. 3.ME.2.C.a.	
Russia and Vegetables: Luscious Latkes	Youth will follow a recipe to produce a Russian vegetable dish.		Identify a healthy snack from each food group. 2.ME.2.B.a.	

Activity	Description	English Language Arts	Health	Social Studies
Russia and Vegetables: Mystery Bag	Youth will play and recognize that daily physical activity is a part of healthy living.		Explain how healthy behaviors enhance the body's basic lines of defense (e.g., sleep, physical activity, healthy food choices). 4.RA.1.B.a.	
Russia and Vegetables: Amazing Colored Russian Eggs	Youth will analyze the origins of the foods we eat.	Read, infer, and draw conclusions to follow and explain a set of written multi-step directions. 3.R.3.A.d.		
Russia and Vegetables: Take-home Activity	Youth will identify the variety of vegetables in their home.		Identify a healthy snack from each food group. 2.ME.2.B.a.	
Kenya and Fruits: The Disappearing Fruit Mystery	Youth will communicate through riddles about fruits from around the world.	Write informative/explanatory texts that: use specific, relevant, and accurate words that are suited to the topic, audience, and purpose. 4.W.2.B.c.		
Kenya and Fruits: Rainbow of Fruits	Youth will access information from MyPyramid to understand that a variety of fruits are necessary for a healthy diet.	Apply research process to select relevant resources, literary and informational. 5.W.3.A.d.	Identify a healthy snack from each food group. 2.ME.2.B.a.	
Kenya and Fruits: Shake It Up	Youth will follow a recipe to make a healthy fruit drink.	Read, infer, and draw conclusions to follow and explain a set of written multi-step directions. 3.R.3.A.d.	Identify a healthy snack from each food group. 2.ME.2.B.a.	

Activity	Description	English Language Arts	Health	Social Studies
Kenya and Fruits: Walk the Walk	Youth will play and recognize daily physical activity as part of healthy living.		Explain how healthy behaviors enhance the body's basic lines of defense (e.g., sleep, physical activity, healthy food choices). 4.RA.1.B.a.	
Kenya and Fruits: Map It!	Youth will explain the origins of fruits, the cultures where they are eaten and how transportation and processing add to the cost of fruit products.	Read, infer and draw conclusions to use multiple text features and graphics to locate information and gain an overview of the contents of text information. 5.R.3.A.a.		Create and present products such as maps, graphs, timelines, charts and models, diagrams, etc. to communicate information and understanding on social studies' topics. 5.TS.7.B.b.
Kenya and Fruits: Take-home activity	Youth will explore the fruits group at home.		Identify a healthy snack from each food group. 2.ME.2.B.a.	
Greece and Milk: Pitch It!	Youth will write advertisements for cheese products.	Speak clearly, audibly, and to the point, using conventions of language when presenting individually or with a group by planning an appropriate presentation based on audience. 5.SL.4.A.b.		
Greece and Milk: Drink It Up	Youth will compare the fat content in milk products.		Examine food labels to determine calories and nutrients in a product (e.g., compare nutritional value and ingredients of two product labels). 5.ME.2.C.a.	
Greece and Milk: Greek Delights	Youth will follow a recipe to make a healthy Greek dish with milk products.	Read, infer, and draw conclusions to follow and explain a set of written multi-step directions. 3.R.3.A.d.	Identify a healthy snack from each food group. 2.ME.2.B.a.	

Activity	Description	English Language Arts	Health	Social Studies
Greece and Milk: Carry the Weight	Youth will play and recognize daily physical activity as part of healthy living.		Explain how healthy behaviors enhance the body's basic lines of defense (e.g., sleep, physical activity, healthy food choices). 4.RA.1.B.a.	
Greece and Milk: Milking the Facts	Youth will design and play a game to learn about the Milk Group and Greek culture.		Identify sources and functions of specific vitamins and minerals that are critical for youth (e.g., calcium, folate vitamins A, C and D). 5.ME.2.A.a.	
Greece and Milk: Take-home Activity	Youth will examine dairy products in their refrigerator and make a snack.	Read, infer, and draw conclusions to follow and explain a set of written multi-step directions. 3.R.3.A.d.	Identify sources and functions of specific vitamins and minerals that are critical for youth (e.g., calcium, folate vitamins A, C and D). 5.ME.2.A.a.	
Japan and Meat & Beans: Haiku Festival	Youth will write a haiku to show the influence of culture on diets.	Write fiction or non-fiction narratives and poems that use specific, relevant, and accurate words that are suited to the topic, audience, and purpose. 5.W.2.C.e.	Describe and assess the relationship of family preference and culture to food choices. 5.ME.2.B.b.	
Japan and Meat & Beans: What's to Eat?	Youth will access information from the Meath and Beans Group of MyPyramid to design a meal plan.		Use the MyPyramid.gov website to construct a balanced menu. 5.ME.2.B.a.	
Japan and Meat & Beans: Sukiyaki Special	Youth will follow a recipe to make a healthy Japanese dish with meats and beans.	Read, infer, and draw conclusions to follow and explain a set of written multi-step directions. 3.R.3.A.d.	Identify a healthy snack from each food group. 2.ME.2.B.a.	

Activity	Description	English Language Arts	Health	Social Studies
Japan and Meat & Beans: Having Fun in Japan	Youth will play and recognize daily physical activity is part of healthy living.		Explain how healthy behaviors enhance the body's basic lines of defense (e.g., sleep, physical activity, healthy food choices). 4.RA.1.B.a.	
Japan and Meat & Beans: Eating the Chopstick Way	Youth will learn about the Japanese culture by using chopsticks to eat.		Describe and assess the relationship of family preference and culture to food choices. 5.ME.2.B.b.	
Japan and Meat & Beans: Take-home Activity	Youth will explore the Meat and Beans Group at home and make a healthy snack.	Read, infer, and draw conclusions to follow and explain a set of written multi-step directions. 3.R.3.A.d.	Identify a healthy snack from each food group. 2.ME.2.B.a.	



First Aid

First Aid

 Source: 4H.MISSOURI.EDU; [Health and Fitness Projects](#)

Activity	Description	Guidance & Counseling	Heath
Planning Your Project	Youth will make a plan and review progress towards goals throughout the project.	Recognize and practice basic time-management and organizational skills for assignments and/or task completion. 3.AD4.B.a	
Getting the Facts	Youth will interview a family member in order to complete a needs assessment.		Identify potential hazards in and around the home. 1.RA.2.A.c
Ouwees and Ouches: First Aid for Cuts and Scrapes	Youth will identify the First Aid steps for treating cuts and scrapes and add the proper supplies to the Family First Aid Kit.		Recognize what to do for minor injuries under adult supervision. 2.RA.2.B.a
Biting Off More Than You Can Chew: First Aid for Choking	Youth will identify the signs of choking and describe the Heimlich maneuver.		Create a plan that recognizes an emergency or non-emergency situation and how to respond. 3.RA.2.B.a
Twist and Turn: First Aid for Sprains, Strains and Bruises	Youth will identify ways to prevent and treat sprains and strains.		Recognize what to do for minor injuries under adult supervision. 2.RA.2.B.a
Going with the Glow: First Aid for Nosebleeds	Youth will discover what causes nosebleeds and how to stop them.		Recognize what to do for minor injuries under adult supervision. 2.RA.2.B.a

Activity	Description	Guidance & Counseling	Heath
Get Outta Here! First Aid for Getting Rid of Foreign Objects	Youth will identify tools to safely remove foreign objects.		Recognize what to do for minor injuries under adult supervision. 2.RA.2.B.a
Bugged by Bugs? First Aid for Stings	Youth will understand how to prevent insect stings and how to treat them.		Create a plan that recognizes an emergency or non-emergency situation and how to respond. 3.RA.2.B.a
My What Big Teeth You Have: First Aid for Bites	Youth will identify situations that might provoke animal bites and understand how to treat them.		Create a plan that recognizes an emergency or non-emergency situation and how to respond. 3.RA.2.B.a
Here, there, and Everywhere: First Aid for Poisons	Youth will understand how to prevent and treat poisoning.		Classify substances in the home according to proper and improper usage. 4.RA.3.A.a
Give Me a Break! First Aid for Broken Bones	Youth will understand how to respond to possible broken bones.		Create a plan that recognizes an emergency or non-emergency situation and how to respond. 3.RA.2.B.a
Playing with Fire: First Aid for Burns	Youth will identify burn hazards and how to respond to burns.		Create a plan that recognizes an emergency or non-emergency situation and how to respond. 3.RA.2.B.a
Putting It All Together	Youth will complete their emergency plans and home first aid kits.		Create a plan that recognizes an emergency or non-emergency situation and how to respond. 3.RA.2.B.a



SNAC: Illinois Junior

Illinois Junior Chefs (ages 8-13)

Activity	Description	English Language Arts	Health
Lesson 1: Measuring Like a Chef	Youth will learn about cooking safety, measuring ingredients and grain foods.		<p>Illustrate proper food safety procedures. 1.ME.2.D.a</p> <p>Recognize that food fits into different groups, and that different amounts are needed from each food group for healthy eating. 1.ME.2.A.b.</p>
Lesson 2: Mixing Like a Chef	Youth will learn about mixing techniques, use of herbs and spices, and the dairy group.	<p>Read, infer, and draw conclusions to follow written multi-step directions. 2.R.3.A.e.</p>	<p>Recognize that food fits into different groups, and that different amounts are needed from each food group for healthy eating. 1.ME.2.A.b.</p>
Lesson 3: Chopping Like a Chef	Youth will identify foods from the vegetable group, describe cutting techniques, and learn to use peelers and graters.	<p>Read, infer, and draw conclusions to follow written multi-step directions. 2.R.3.A.e.</p>	<p>Recognize that food fits into different groups, and that different amounts are needed from each food group for healthy eating. 1.ME.2.A.b.</p>
Lesson 4: Slicing Like a Chef	Youth will identify foods from the fruit group, learn how to juice citrus fruit and prevent fruits from browning.	<p>Read, infer, and draw conclusions to follow written multi-step directions. 2.R.3.A.e.</p>	<p>Recognize that food fits into different groups, and that different amounts are needed from each food group for healthy eating. 1.ME.2.A.b.</p>
Lesson 5: Cooking Like a Chef	Youth will identify protein foods, describe different ways to cook protein foods and learn the proper way to crack an egg.		<p>Recognize that food fits into different groups, and that different amounts are needed from each food group for healthy eating. 1.ME.2.A.b.</p> <p>Recognize the four basic rules of food handling. 2.ME.2.D.a.</p>

Activity	Description	English Language Arts	Health	Physical Education
Nutrients for Plants and You	Youth will identify nutrients needed by plant and people, recognize good food sources of nutrients and recognize when plants are ready for harvest.		Identify the six essential nutrients and their functions (carbohydrates, protein, fats, vitamins, minerals, water). 3.ME.2.A.a	
Choose My Plate	Youth will identify how sugar and fat affect where foods fit on MyPlate and identify the main nutrients each food group contributes to our bodies.		Use the MyPyramid.gov website to construct a balanced menu. 5.ME.2.B.a <i>Note: MyPyramid.gov has been replaced with myplate.gov</i>	
Making Healthy Food Choices	Youth will identify the amount of food from each food group they need each day, recognize how much they are eating, and learn how to put a garden to bed.		Make decisions regarding food choices based on balance, moderation and variety. 4.ME.2.B.a	
Fruits & Veggies – More Matters	Youth will recognize the importance of eating fruits and vegetables, identify nutrients found in fruits and vegetables, and learn how plants provide us with nutrients.		Identify sources and functions of specific vitamins and minerals that are critical for youth. 5.ME.2.A.a	
What's on a Label?	Youth will locate information on the Nutrition Facts label and recognize important qualities for choosing fruits and vegetables for a garden.		Examine food labels to determine calories and nutrients in a product. 5.ME.2.C.a	
Get Physically Active	Youth will recognize the importance of physical activity, heart rate, warm-ups, stretches and		Identify components of health related fitness. 3.ME.1.D.a	Identify the differences between anaerobic and aerobic activities. 4.HM.1.C.A



SNAC: Eating from the Garden

Eating from the Garden (4th & 5th Grade)

Activity	Description	English Language Arts	Health	Physical Education
Food for Growth	Youth will understand how the food we eat relates to plants, will learn what makes good soil for plants to grow, and will follow directions on seed packets and other sources to plant seeds.	Interpret details from procedural text to complete a task, solve a problem, or perform an action. 5.R.3.A.b	Recognize that foods come from plant and animal sources and provide the body with fuel (energy). 1.ME.2.A.a	
Seeds We Eat	Youth will recognize how vegetables come from all parts of a plant and learn what a seed is and why spacing is important in planting.	Interpret details from procedural text to complete a task, solve a problem, or perform an action. 5.R.3.A.b	Recognize that foods come from plant and animal sources and provide the body with fuel (energy). 1.ME.2.A.a	
Fight BAC	Youth will recognize that fruits and vegetables contain germs and insects from the garden and will recognize weeds in the garden.		Recognize the four basic rules of food handling (i.e., clean, cook, chill, separate). 2.ME.2.D.a	

Activity	Description	English Language Arts	Health	Physical Education
	water during physical activity. Youth will understand what to look for in choosing a garden location.			
Eat Right. Exercise. Have Fun	Youth will recognize the importance of eating right, being physically active, and how to set and reach goals.		Recognize the MyPyramid.gov food slogans (e.g., go lean with meat, vary your vegetables, focus on fruits, get your calcium rich foods, make the most of your whole grains). 5.ME.2.A.a	Set personal fitness goals. 4.HM.1.A.a
We Need a Garden Plan	Youth will understand the importance of washing fruits and vegetables, the best way to store fruits and vegetables, and explain why plants need room to grow.		Describe proper food guidelines and storage (e.g., expiration date, refrigerated vs. non-refrigerated food). 4.ME.2.D.a	
Consumerism	Youth will recognize how advertisements influence our food choices. Youth will learn how plants attract butterflies and identify bugs and their role in plant growth.		Collect and display examples of how the media can influence a consumer decision regarding health practices and products (e.g., magazine, newspaper, commercial). 4.ME.3.A.a	

Garden Celebration	Youth will understand where fruits and vegetables are grown, the importance of eating fruits and vegetables and recognize when plants are ready to harvest.		Identify sources and functions of specific vitamins and minerals that are critical for youth. 5.ME.2.A.a	
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SNAC: Soccer for Success
Soccer for Success (grades 3-5)

Activity	Description	Health	Physical Education
Week 1, Day 1	Soccer: Youth will learn to dribble. Nutrition: Youth will learn about calories and balance of energy.	Recognize that essential nutrients provide different amounts of energy. 3.ME.2.E.a.	Demonstrate sport-specific manipulative skills in games and modified sports activities. 5.PA.1.C.a. Identify food choice and how it relates to a healthy lifestyle. 4.HM.1.B.a.
Week 1, Day 2	Soccer: Youth will learn to use various parts of their foot to control the ball. Nutrition: Youth will learn the difference between anytime foods and sometimes foods.		Demonstrate sport-specific manipulative skills in games and modified sports activities. 5.PA.1.C.a. Identify food choice and how it relates to a healthy lifestyle. 4.HM.1.B.a.
Week 1, Game Day	Soccer: Youth will participate in scrimmages.		Apply fundamental and specialized skills in game situations. 4.PA.1.F.a.
Week 2, Day 1	Soccer: Youth will practice using their feet to turn the ball. Nutrition: Youth will learn about healthy anytime snacks.		Demonstrate sport-specific manipulative skills in games and modified sports activities. 5.PA.1.C.a. Identify food choice and how it relates to a healthy lifestyle. 4.HM.1.B.a.

Activity	Description	Health	Physical Education
Week 2, Day 2	Soccer: Youth will practice pushing and receiving. Nutrition: Youth will learn about balance and moderation.	Recognize that essential nutrients provide different amounts of energy. 3.ME.2.E.a.	Connect the importance of posture and body positions with performance of various skills. 5.PA.1.E.a.
Week 2, Game Day	Soccer: Youth will participate in scrimmages.		Apply fundamental and specialized skills in game situations. 4.PA.1.F.a.
Week 3, Day 1	Soccer: Youth will practice correct body positioning. Nutrition: Youth will learn about anytime and sometimes beverages.		Connect the importance of posture and body positions with performance of various skills. 5.PA.1.E.a.
Week 3, Day 2	Soccer: Youth will practice proper shooting technique. Nutrition: Youth will learn about the importance of hydration.		Demonstrate manipulative skills with increased force, accuracy and control at different speeds, levels and directions. 5.PA.1.E.b.
Week 3, Game Day	Soccer: Youth will participate in scrimmages.		Apply fundamental and specialized skills in game situations with increased proficiency. 5.PA.1.F.a.
Week 4, Day 1	Soccer: Youth will practice using different parts of their body to change direction and accelerate. Nutrition: Youth will learn about the food groups and MyPlate.	Identify healthy food choices in each of the five food groups. 2.HM.2.A.a	Demonstrate manipulative skills with increased force, accuracy and control at different speeds, levels and directions. 5.PA.1.E.b. Identify food choice and how it relates to a healthy lifestyle. 4.HM.1.B.a.

Activity	Description	Health	Physical Education
Week 4, Day 2	<p>Soccer: Youth will practice finding open spaces to support teammates.</p> <p>Nutrition: Youth will learn about the food groups and MyPlate.</p>	<p>Identify healthy food choices in each of the five food groups.</p> <p>2.HM.2.A.a</p>	<p>Demonstrate ability to follow rules, cooperate with teammates and apply a simple strategy in a variety of sport specific lead-up games.</p> <p>5.PA.2.B.a.</p> <p>Identify food choice and how it relates to a healthy lifestyle.</p> <p>4.HM.1.B.a.</p>
Week 4, Game Day	Soccer: Youth will participate in scrimmages.		<p>Apply fundamental and specialized skills in game situations with increased proficiency.</p> <p>5.PA.1.F.a.</p>
Week 5, Day 1	<p>Soccer: Youth will practice keeping the head up and looking beyond the ball.</p> <p>Nutrition: Youth will learn about fruits and nutrients they provide.</p>	<p>Recognize that essential nutrients provide different amounts of energy.</p> <p>3.HM.2.E.a.</p>	<p>Demonstrate manipulative skills with increased force, accuracy and control at different speeds, levels and directions.</p> <p>5.PA.1.E.b.</p> <p>Identify food choice and how it relates to a healthy lifestyle.</p> <p>4.HM.1.B.a.</p>
Week 5, Day 2	<p>Soccer: Youth will practice shooting with correct foot placement.</p> <p>Nutrition: Youth will learn about serving sizes for fruit.</p>	<p>Recognize that essential nutrients provide different amounts of energy.</p> <p>3.HM.2.E.a.</p>	<p>Identify body parts and functions in relationship to movement.</p> <p>4.PA.1.E.a.</p> <p>Identify food choice and how it relates to a healthy lifestyle.</p> <p>4.HM.1.B.a.</p>
Week 5, Game Day	Soccer: Youth will participate in scrimmages.		<p>Apply fundamental and specialized skills in game situations with increased proficiency.</p> <p>5.PA.1.F.a.</p>
Week 6, Day 1	<p>Soccer: Youth will practice using different parts of their bodies to change direction and accelerate.</p> <p>Nutrition: Youth will learn about the benefits and types of vegetables.</p>	<p>Recognize that essential nutrients provide different amounts of energy.</p> <p>3.HM.2.E.a.</p>	<p>Identify body parts and functions in relationship to movement.</p> <p>4.PA.1.E.a.</p> <p>Identify food choice and how it relates to a healthy lifestyle.</p> <p>4.HM.1.B.a.</p>

Activity	Description	Health	Physical Education
Week 6, Day 2	Soccer: Youth will practice receiving and advancing the ball. Nutrition: Youth will learn about serving sizes for vegetables.	Recognize that essential nutrients provide different amounts of energy. 3.HM.2.E.a.	Demonstrate manipulative skills with increased force, accuracy and control at different speeds, levels and directions. 5.PA.1.E.b. Identify food choice and how it relates to a healthy lifestyle. 4.HM.1.B.a.
Week 6, Game Day	Soccer: Youth will participate in scrimmages.		Apply fundamental and specialized skills in game situations with increased proficiency. 5.PA.1.F.a.
Week 7, Day 1	Soccer: Youth will practice playing quickly to create an attacking advantage. Nutrition: Youth will learn about the benefits of eating whole grains.	Recognize that essential nutrients provide different amounts of energy. 3.HM.2.E.a.	Demonstrate ability to follow rules, cooperate with teammates and apply a simple strategy in a variety of sport specific lead-up games. 5.PA.2.B.a. Identify food choice and how it relates to a healthy lifestyle. 4.HM.1.B.a.
Week 7, Day 2	Soccer: Youth will practice accuracy with smaller spaces and smaller goals. Nutrition: Youth will learn about serving sizes for grains.	Recognize that essential nutrients provide different amounts of energy. 3.HM.2.E.a.	Demonstrate manipulative skills with increased force, accuracy and control at different speeds, levels and directions. 5.PA.1.E.b. Identify food choice and how it relates to a healthy lifestyle. 4.HM.1.B.a.
Week 7, Game Day	Soccer: Youth will participate in scrimmages.		Apply fundamental and specialized skills in game situations with increased proficiency. 5.PA.1.F.a.
Week 8, Day 1	Soccer: Youth will use different parts of their body to change direction and accelerate. Nutrition: Youth will learn about the benefits of eating protein.	Recognize that essential nutrients provide different amounts of energy. 3.HM.2.E.a.	Identify body parts and functions in relationship to movement. 4.PA.1.E.a. Identify food choice and how it relates to a healthy lifestyle. 4.HM.1.B.a.

Activity	Description	Health	Physical Education
Week 8, Day 2	<p>Soccer: Youth will practice block tackling with correct foot placement.</p> <p>Nutrition: Youth will learn about serving sizes for proteins.</p>	<p>Recognize that essential nutrients provide different amounts of energy.</p> <p>3.HM.2.E.a.</p>	<p>Identify body parts and functions in relationship to movement.</p> <p>4.PA.1.E.a.</p> <p>Identify food choice and how it relates to a healthy lifestyle.</p> <p>4.HM.1.B.a.</p>
Week 8, Game Day	Soccer: Youth will participate in scrimmages.		<p>Apply fundamental and specialized skills in game situations with increased proficiency.</p> <p>5.PA.1.F.a.</p>
Week 9, Day 1	<p>Soccer: Youth will learn strategies for dribbling.</p> <p>Nutrition: Youth will learn about the benefits of dairy products.</p>	<p>Recognize that essential nutrients provide different amounts of energy.</p> <p>3.HM.2.E.a.</p>	<p>Demonstrate manipulative skills with increased force, accuracy and control at different speeds, levels and directions.</p> <p>5.PA.1.E.b.</p> <p>Identify food choice and how it relates to a healthy lifestyle.</p> <p>4.HM.1.B.a.</p>
Week 9, Day 2	<p>Soccer: Youth will practice anticipating passes.</p> <p>Nutrition: Youth will learn about serving sizes for dairy products.</p>	<p>Recognize that essential nutrients provide different amounts of energy.</p> <p>3.HM.2.E.a.</p>	<p>Demonstrate ability to follow rules, cooperate with teammates and apply a simple strategy in a variety of sport specific lead-up games.</p> <p>5.PA.2.B.a.</p> <p>Identify food choice and how it relates to a healthy lifestyle.</p> <p>4.HM.1.B.a.</p>
Week 9, Game Day	Soccer: Youth will participate in scrimmages.		<p>Apply fundamental and specialized skills in game situations with increased proficiency.</p> <p>5.PA.1.F.a.</p>

Activity	Description	Health	Physical Education
Week 10, Day 1	Soccer: Youth will use different parts of their body to change direction and accelerate. Nutrition: Youth will learn about the importance of a healthy breakfast.	Recognize that essential nutrients provide different amounts of energy. 3.HM.2.E.a.	Identify body parts and functions in relationship to movement. 4.PA.1.E.a. Identify food choice and how it relates to a healthy lifestyle. 4.HM.1.B.a.
Week 10, Day 2	Soccer: Youth will practice different techniques to receive and/or play the ball out- of-the-air. Nutrition: Youth will learn about healthy fast food breakfast options.	Recognize that essential nutrients provide different amounts of energy. 3.HM.2.E.a.	Demonstrate manipulative skills with increased force, accuracy and control at different speeds, levels and directions. 5.PA.1.E.b. Identify food choice and how it relates to a healthy lifestyle. 4.HM.1.B.a.
Week 10, Game Day	Soccer: Youth will participate in scrimmages.		Apply fundamental and specialized skills in game situations with increased proficiency. 5.PA.1.F.a.
Week 11, Day 1	Soccer: Youth will practice defensive stance and foot patterns. Nutrition: Youth will learn about sodas and their sugar content.		Demonstrate manipulative skills with increased force, accuracy and control at different speeds, levels and directions. 5.PA.1.E.b. Identify food choice and how it relates to a healthy lifestyle. 4.HM.1.B.a.
Week 11, Day 2	Soccer: Youth will practice balance and correct diamond grip. Nutrition: Youth will learn about foods that have added sugars.	Recognize that essential nutrients provide different amounts of energy. 3.HM.2.E.a.	Demonstrate manipulative skills with increased force, accuracy and control at different speeds, levels and directions. 5.PA.1.E.b. Identify food choice and how it relates to a healthy lifestyle. 4.HM.1.B.a.

Activity	Description	Health	Physical Education
Week 11, Game Day	Soccer: Youth will participate in scrimmages.		Apply fundamental and specialized skills in game situations with increased proficiency. 5.PA.1.F.a.
Week 12, Day 1	Soccer: Youth will practice defense responses to offensive pressure. Nutrition: Youth will review the importance of anytime food and beverages.	Recognize that essential nutrients provide different amounts of energy. 3.HM.2.E.a.	Apply fundamental and specialized skills in game situations with increased proficiency. 5.PA.1.F.a. Identify food choice and how it relates to a healthy lifestyle. 4.HM.1.B.a.
Week 12, Day 2	Soccer: Youth will practice proper passing technique. Nutrition: Youth will review MyPlate.	Identify healthy food choices in each of the five food groups. 2.HM.2.A.a	Demonstrate ability to follow rules, cooperate with teammates and apply a simple strategy in a variety of sport specific lead-up games. 5.PA.2.B.a. Identify food choice and how it relates to a healthy lifestyle. 4.HM.1.B.a.
Week 12, Game Day	Soccer: Youth will participate in scrimmages.		Apply fundamental and specialized skills in game situations with increased proficiency. 5.PA.1.F.a.



SNAC: Soccer for Success

Soccer for Success (grades 6-8)

Activity	Description	Health	Physical Education
Week 1, Day 1	Soccer: Youth will practice using various parts of their foot to control the ball. Nutrition: Youth will learn about healthy choices for drinks during exercise and meals.		Identify critical elements to improve performance in selected skills. 6.PA.1.E.a.
Week 1, Day 2	Soccer: Youth will practice correct foot position for passing. Nutrition: Youth will learn about the relationship between energy in and energy out.	Recognize that essential nutrients provide different amounts of energy. 3.ME.2.E.a.	Identify critical elements to improve performance in selected skills. 6.PA.1.E.a. Identify food choice and how it relates to a healthy lifestyle. 4.HM.1.B.a.
Week 1, Game Day	Soccer: Youth will participate in scrimmages.		Apply fundamental and sequential skills in game situations with increased proficiency. 6.PA.1.F.a.
Week 2, Day 1	Soccer: Youth will practice using different parts of their body to control the ball.	Recognize that essential nutrients provide different amounts of energy. 3.ME.2.E.a.	Identify critical elements to improve performance in selected skills. 6.PA.1.E.a.
	Nutrition: Youth will learn about foods that should be eaten in moderation.		

Activity	Description	Health	Physical Education
Week 2, Day 2	Soccer: Youth will practice pushing and receiving.		Apply critical elements of movement to various activities. 7.PA.1.E.a.
	Nutrition: Youth will learn about healthy on-the-go food choices.		Identify food choice and how it relates to a healthy lifestyle. 4.HM.1.B.a.
Week 2, Game Day	Soccer: Youth will participate in scrimmages.		Apply fundamental and sequential skills in game situations with increased proficiency. 6.PA.1.F.a.
Week 3, Day 1	Soccer: Youth will practice correct body positioning.		Apply critical elements of movement to various activities. 7.PA.1.E.a.
	Nutrition: Youth will learn about healthy and unhealthy beverages.		
Week 3, Day 2	Soccer: Youth will practice proper passing and volleying techniques.		Apply critical elements of movement to various activities. 7.PA.1.E.a.
	Nutrition: Youth will learn about the importance of hydration.		
Week 3, Game Day	Soccer: Youth will participate in scrimmages.		Apply fundamental and sequential skills in game situations with increased proficiency. 6.PA.1.F.a.
Week 4, Day 1	Soccer: Youth will practice using different parts of their body to manipulate the ball and when shooting. Nutrition: Youth will learn about the food groups and MyPlate		Apply critical elements of movement to various activities. 7.PA.1.E.a. Identify food choice and how it relates to a healthy lifestyle. 4.HM.1.B.a.

Activity	Description	Health	Physical Education
Week 4, Day 2	Soccer: Youth will practice finding open spaces to support teammates. Nutrition: Youth will learn about the importance of nutrition facts labels.	Examine food labels to determine calories and nutrients in a product. 5.HM.2.C.a.	Apply basic offensive and defensive strategies in a modified game setting. 7.PA.2.B.b.
Week 4, Game Day	Soccer: Youth will participate in scrimmages.		Apply fundamental and sequential skills in game situations with increased proficiency. 6.PA.1.F.a.
Week 5, Day 1	Soccer: Youth will practice turning the ball using different parts of both feet. Nutrition: Youth will learn about fruits and nutrients they provide.	Recognize that essential nutrients provide different amounts of energy. 3.HM.2.E.a.	Apply critical elements of movement to various activities. 7.PA.1.E.a.
Week 5, Day 2	Soccer: Youth will practice different types of passes. Nutrition: Youth will learn about natural and added sugars.	Recognize that essential nutrients provide different amounts of energy. 3.HM.2.E.a.	Apply basic offensive and defensive strategies in a modified game setting. 7.PA.2.B.b.
Week 5, Game Day	Soccer: Youth will participate in scrimmages.		Apply fundamental and sequential skills in game situations with increased proficiency. 6.PA.1.F.a.
Week 6, Day 1	Soccer: Youth will practice using different defensive techniques and strategies. Nutrition: Youth will learn about the benefits and types of vegetables.	Recognize that essential nutrients provide different amounts of energy. 3.HM.2.E.a.	Apply basic offensive and defensive strategies in a modified game setting. 7.PA.2.B.b.

Activity	Description	Health	Physical Education
Week 6, Day 2	Soccer: Youth will practice using different offensive techniques and strategies. Nutrition: Youth will learn about serving sizes for vegetables.	Recognize that essential nutrients provide different amounts of energy. 3.HM.2.E.a.	Apply basic offensive and defensive strategies in a modified game setting. 7.PA.2.B.b.
Week 6, Game Day	Soccer: Youth will participate in scrimmages.		Apply fundamental and sequential skills in game situations with increased proficiency. 6.PA.1.F.a.
Week 7, Day 1	Soccer: Youth will practice checking runs and striking the ball with the laces. Nutrition: Youth will learn about the benefits of eating whole grains.	Recognize that essential nutrients provide different amounts of energy. 3.HM.2.E.a.	Apply critical elements of movement to various activities. 7.PA.1.E.a.
Week 7, Day 2	Soccer: Youth will practice moving to open space to receive passes. Nutrition: Youth will learn about the benefits of eating whole grains.	Recognize that essential nutrients provide different amounts of energy. 3.HM.2.E.a.	Apply basic offensive and defensive strategies in a modified game setting. 7.PA.2.B.b.
Week 7, Game Day	Soccer: Youth will participate in scrimmages.		Apply fundamental and sequential skills in game situations with increased proficiency. 6.PA.1.F.a.
Week 8, Day 1	Soccer: Youth will use different parts of their body to juggle, control and to fake a defender. Nutrition: Youth will learn about the benefits of eating protein.	Recognize that essential nutrients provide different amounts of energy. 3.HM.2.E.a.	Apply critical elements of movement to various activities. 7.PA.1.E.a.

Activity	Description	Health	Physical Education
Week 8, Day 2	Soccer: Youth will practice finding and creating open space. Nutrition: Youth will learn about the importance of iron in their diet.	Identify the sources and basic functions of specific vitamins and minerals that are critical for youth. 5.HM.2.A.a.	Apply basic offensive and defensive strategies in a modified game setting. 7.PA.2.B.b.
Week 8, Game Day	Soccer: Youth will participate in scrimmages.		Apply fundamental and sequential skills in game situations with increased proficiency. 6.PA.1.F.a.
Week 9, Day 1	Soccer: Youth will practice blocking strategies. Nutrition: Youth will learn about the benefits of dairy products.	Recognize that essential nutrients provide different amounts of energy. 3.HM.2.E.a.	Apply basic offensive and defensive strategies in a modified game setting. 7.PA.2.B.b.
Week 9, Day 2	Soccer: Youth will practice redirecting the ball. Nutrition: Youth will learn about the importance of calcium in their diet.	Identify the sources and basic functions of specific vitamins and minerals that are critical for youth. 5.HM.2.A.a.	
Week 9, Game Day	Soccer: Youth will participate in scrimmages.		Apply fundamental and sequential skills in game situations with increased proficiency. 6.PA.1.F.a.
Week 10, Day 1	Soccer: Youth will practice manipulating the ball and taking initiative to beat a defender and find the open goal. Nutrition: Youth will learn about the importance of a healthy breakfast.	Recognize that essential nutrients provide different amounts of energy. 3.HM.2.E.a.	Apply basic offensive and defensive strategies in a modified game setting. 7.PA.2.B.b.

Activity	Description	Health	Physical Education
Week 10, Day 2	<p>Soccer: Youth will practice correct foot and body placement for volleying and controlling the ball.</p> <p>Nutrition: Youth will learn about healthy fast food breakfast options.</p>	<p>Recognize that essential nutrients provide different amounts of energy.</p> <p>3.HM.2.E.a.</p>	<p>Apply fundamental and sequential skills in game situations with increased proficiency.</p> <p>6.PA.1.F.a.</p>
Week 10, Game Day	Soccer: Youth will participate in scrimmages.		<p>Apply fundamental and sequential skills in game situations with increased proficiency.</p> <p>6.PA.1.F.a.</p>
Week 11, Day 1	<p>Soccer: Youth will practice defensive strategies and techniques.</p> <p>Nutrition: Youth will learn about natural and added sugars.</p>		<p>Apply basic offensive and defensive strategies in a modified game setting.</p> <p>7.PA.2.B.b.</p>
Week 11, Day 2	<p>Soccer: Youth will practice goal keeping techniques.</p> <p>Nutrition: Youth will learn about foods that have added sugars.</p>		<p>Apply basic offensive and defensive strategies in a modified game setting.</p> <p>7.PA.2.B.b.</p>
Week 11, Game Day	Soccer: Youth will participate in scrimmages.		<p>Apply fundamental and sequential skills in game situations with increased proficiency.</p> <p>6.PA.1.F.a.</p>
Week 12, Day 1	<p>Soccer: Youth will practice tackling techniques.</p> <p>Nutrition: Youth will review the importance of balancing energy in with energy out.</p>	<p>Recognize that essential nutrients provide different amounts of energy.</p> <p>3.HM.2.E.a.</p>	<p>Apply basic offensive and defensive strategies in a modified game setting.</p> <p>7.PA.2.B.b.</p>

Activity	Description	Health	Physical Education
Week 12, Day 2	<p>Soccer: Youth will practice placement techniques.</p> <p>Nutrition: Youth will review MyPlate and Nutrition Facts Labels as a guide to healthy eating.</p>	<p>Recognize that essential nutrients provide different amounts of energy.</p> <p>3.HM.2.E.a.</p>	<p>Apply fundamental and sequential skills in game situations with increased proficiency.</p> <p>6.PA.1.F.a.</p>
Week 12, Game Day	Soccer: Youth will participate in scrimmages.		<p>Apply fundamental and sequential skills in game situations with increased proficiency.</p> <p>6.PA.1.F.a.</p>



Keeping Fit: Fitness Activities for Youth

Keeping Fit: Fitness Activities for Youth

Activity	Description	English Language Arts	Health	Math	Physical Education
Benefits of Fitness: Find Out About Fitness	Youth will interview several different people who are fit.	Apply research process to locate information in reference texts, electronic resources, interviews, or visual sources and literary and informational texts. 3.W.3.A.d.	Identify components of health related fitness. 3.ME.1.D.a.		Recognize the components of health-related fitness. 3.HM.1.A.a.
Benefits of Fitness: Fitness Feedback	Youth will identify the most important benefits of staying physically fit.		Identify components of health related fitness. 3.ME.1.D.a.		Recognize the components of health-related fitness. 3.HM.1.A.a.
Sports Nutrition: High Performance	Youth will track their water intake to monitor hydration.			Use the four operations to solve problems involving lengths, liquid volumes or weights given in the same units. 3.GM.B.8.	
Sports Nutrition: Organize Your Favorites	Youth will identify nutrient rich foods in each of the food groups.		Identify healthy food choices in each of the five food groups. 2.ME.2.A.a		Identify food choice and how it relates to a healthy lifestyle. 4.HM.1.B.a.

Activity	Description	English Language Arts	Health	Math	Physical Education
Sports Nutrition: Delete the Junk	Youth will recognize accurate and fraudulent information about supplements and enhancers.		Collect and display examples of how the media can influence a consumer decision regarding health practices and products. 4.ME.3.A.a.		
Injury Free: Optimum Performance	Youth will develop a warm-up and cool-down routine.				Recognize appropriate warm-up, cool-down and flexibility activities and the importance of each to injury prevention. 3.HM.3.A.a.
Injury Free: Avoid a Crash	Youth will identify protective gear, safety equipment and safety techniques to stay injury free.		Predict the outcome when safety equipment is used/not used in physical activity. 4.RA.2.C.a.		Explain how rules, safety and etiquette are important concepts in a physical activity setting. 6.HM.2.A.a.
Self- Assessment: Your Fitness facts	Youth will do a fitness self-assessment.		Distinguish individual strengths and weaknesses in health-related fitness. 5.ME.1.D.a.	Use the four operations to solve problems involving lengths, liquid volumes or weights given in the same units. 3.GM.B.8.	Participate in health-related fitness assessments and interpret the results. 5.HM.1.A.b.
Self- Assessment: Customize Your Files	Youth will design a personal fitness plan based on self-assessment information.		Distinguish individual strengths and weaknesses in health-related fitness. 5.ME.1.D.a.		Interpret personal health-related fitness assessments and determine which fitness components need improvement. 6.HM.1.A.b.

Activity	Description	English Language Arts	Health	Math	Physical Education
Self-Assessment: Use Your Files	Youth will plan for accountability to a personal fitness plan.		Apply strategies to solve or prevent problems. 5.ME.4.A.a.		
Self-Assessment: Show Your Results	Youth will share their fitness results with others.		Distinguish individual strengths and weaknesses in health-related fitness. 5.ME.1.D.a.		Participate in health-related fitness assessments and interpret the results. 5.HM.1.A.b.



Keeping Fit: Staying Healthy

Keeping Fit: Staying Healthy

Activity	Description	Health	Physical Education
Keeping it Clean: Hide and Seek with Germs	Youth will identify areas in their house where germs could be found.	Identify how germs are spread and apply practices which help reduce germs in our community. 2.RA.1.A.b.	
Keeping it Clean: Hair, Skin, Nails and Teeth	Youth will identify the importance of keeping hair, skin, nails and teeth clean.	Describe how personal health is enhanced by behaviors (including care of skin, teeth, gums, hair, eyes, nose, ears, nails). 3.ME.1.A.a.	
Keeping it Clean: Ears and Eyes	Youth will identify why it is important to keep ears and eyes healthy.	Describe how personal health is enhanced by behaviors (including care of skin, teeth, gums, hair, eyes, nose, ears, nails). 3.ME.1.A.a.	
Eating Adventures: Power Foods	Youth will identify power foods and explain why they help you to stay healthy.	Identify healthy food choices in each of the five food groups. 2.ME.2.A.a	
Eating Adventures: Try It—You'll Like It!	Youth will create healthy snacks using power foods.	Select foods that are nutrient-dense to provide the body with long-lasting energy for thinking and physical activity. 2.ME.2.E.a.	

Activity	Description	Health	Physical Education
Eating Adventures: What Are Your Eating I-Cues?	Youth will learn to recognize hungry/full feelings and choose appropriate sizes.	Make decisions regarding food choices based on balance, moderation and variety. 4.ME.2.B.a.	
Eating Adventures: Smart Start	Youth will identify healthy breakfast foods.	Select foods that are nutrient-dense to provide the body with long-lasting energy for thinking and physical activity. 2.ME.2.E.a.	
Activity Counts: How Fit is Fit?	Youth will measure heartrate and understand the importance of physical activity.	Identify components of health related fitness. 3.ME.1.D.a.	Recognize the components of health-related fitness. 3.HM.1.A.a.
Activity Counts: Fun for One or Two or Lots of You!	Youth will identify activities to help stay healthy.	Identify components of health related fitness. 3.ME.1.D.a.	Identify opportunities outside of school to participate regularly in physical activities. 2.HM.1.B.a.
Activity Counts: Power Play	Youth will create a physical activity inventory.	Identify components of health related fitness. 3.ME.1.D.a.	Identify opportunities outside of school to participate regularly in physical activities. 2.HM.1.B.a.
Activity Counts: Showing Your Smarts: The Final Project	Youth will share information about staying healthy with others.	Describe how personal health is enhanced by behaviors (including care of skin, teeth, gums, hair, eyes, nose, ears, nails). 3.ME.1.A.a.	Identify opportunities outside of school to participate regularly in physical activities. 2.HM.1.B.a.



Staying Healthy

Staying Healthy

Source: 4H.MISSOURI.EDU; [Health and Fitness Projects](#)

Activity	Description	Guidance & Counseling	Health
Introduction: Be Smart About Your Health	Youth will do a self-assessment to determine their likes and strengths and how to share them.	Identify strengths and interests at home and school. 1.CD7.A.a	
Keeping it Clean: Hide and Seek with Germs	Youth will identify where germs hide and how to avoid them.		Define germs, where they are found, and what harm they cause to the body. 1.RA.1.A.b
Keeping it Clean: Hair, Skin, Nails and Teeth	Youth will identify why it is important to keep hair, skin, nails and teeth clean.		Show the cause and effect of healthy behaviors. 1.ME.1.A.a
Keeping it Clean: Ears and Eyes	Youth will identify ways to keep ears and eyes healthy and why it is important.		Show the cause and effect of healthy behaviors. 1.ME.1.A.a
Eating Adventures: Power Foods	Youth will identify nutrient rich foods and why they are important to health.		Select foods that are nutrient-dense to provide the body with long-lasting energy for thinking and physical activity. 2.ME.2.E.a
Eating Adventures: Try It – You’ll Like It!	Youth will create healthy snacks using nutrient rich food.		Select foods that are nutrient-dense to provide the body with long-lasting energy for thinking and physical activity. 2.ME.2.E.a

Activity	Description	Guidance & Counseling	Health
Eating Adventures: What Are Your Eating I-Cues?	Youth will recognize feelings of hunger and how to choose appropriate portion sizes.		Show the cause and effect of healthy behaviors. 1.ME.1.A.a
Eating Adventures: Smart Start	Youth will identify healthy choices for breakfast.		Select foods that are nutrient-dense to provide the body with long-lasting energy for thinking and physical activity. 2.ME.2.E.a
Activity Counts: How Fit Is Fit?	Youth will identify the importance of physical activity and the impacts on strength, flexibility and endurance.		Describe how physical activity makes a person's body stronger. 2.ME.1.D.a
Activity Counts: Fun for One or Two or Lots of You!	Youth will choose physical activities to help stay healthy.		Describe how physical activity makes a person's body stronger. 2.ME.1.D.a
Activity Counts: Power Play	Youth will do a personal inventory of their physical activity for a week.		Describe how physical activity makes a person's body stronger. 2.ME.1.D.a
Showing Your Smarts: The Final Project	Youth will share information about staying healthy with others.	Identify strengths and interests at home and school. 1.CD7.A.a	Describe how physical activity makes a person's body stronger. 2.ME.1.D.a



Resource for Healthy Living Projects

Save Your Brain

Source: 4H.MISSOURI.EDU; [Clothing](#)

Activity	Description	English Language		Guidance & Counseling
		Arts	Health	
What Does a Concussion Feel Like?	Youth will develop an understanding of how brain injuries can occur and the consequences.		Recognize that decisions have consequences. 1.HM.4.A	
Raw Egg Shake Demonstration	Youth will develop an understanding of conditions in which brain injury is likely to occur.		Recognize that decisions have consequences. 1.HM.4.A	
Peripheral Vision Charades	Youth will demonstrate an understanding of spatial awareness.		Assess personal environment and recognize the potential for danger in everyday situations. 4.RA.2.A	
Save Your Brain in Sports	Youth will demonstrate an understanding of the importance of helmets and commit to safer recreational practices.	Speak clearly, audibly and to the point, using conventions of language when presenting individually or with a group by: planning an appropriate presentation based on audience. 5.SL.4.A.b	Predict the outcome when safety equipment is used/not used in physical activity. 4.RA.2.C Identify positive ways to solve or prevent problems (e.g., verbal communication skills,	Identify behaviors that compromise personal safety to self and others. 6.PS3.B.a

Activity	Description	English Language		Guidance & Counseling
		Arts	Health	
			non-verbal, and “I” messages). 2.HM.4.A	
Slip, Trip, or Fall Investigator	Youth will identify house-hold hazards and problem solve ways to mitigate risk.		Assess personal environment and recognize the potential for danger in everyday situations. 4.RA.2.A	Identify behaviors that compromise personal safety to self and others. 6.PS3.B.a
Safe Driving Crossword and Pledge	Youth will list common causes of motor vehicle accidents and commit to safe driving practices.		Assess personal environment and recognize the potential for danger in everyday situations. 4.RA.2.A	Identify behaviors that compromise personal safety to self and others. 6.PS3.B.a
Disability Escape Room	Youth will demonstrate ability awareness and learn the importance of befriending individuals with disabilities.			Recognize and respect diverse groups within the school and community. 4.PS.2.B.a

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2.HM.4.A	Save Your Brain
2.ME.1.D.a	Staying Healthy
2.ME.2.A.a	Foods: Cooking 101 (Level 1)
2.ME.2.C.a	Foods: Cooking 201 (Level 2)
2.ME.2.D.a	Foods: Cooking 201 (Level 2)
2.ME.2.E.a	Staying Healthy
2.RA.B.a	Outdoor Adventures: Hiking (Level 1)
2.RA.2.B.a	First Aid
3.RA.A.1	Sewing: STEAM Clothing 1 - FUNdamentals
3.RA.2.B.a	First Aid
3.RA.4.B.a	Outdoor Adventures: Hiking (Level 1)
4.FS.1.E	Aerospace: Pilot in Command (Level 4)
4.ME.2.A.b	Outdoor Adventures: Hiking (Level 1)
4.ME.2.D.a	Foods: Cooking 201 (Level 2)

	Foods: Cooking 301 (Level 3)
4.ME.4.C.a	Dog: Leading the Pack (Level 3)
4.RA.1.C.a	Cat: Leaping Forward (Level 3)
	Dog: Wiggles and Wags (Level 1)
	Dog: Leading the Pack (Level 3)
4.RA.2.A	Save Your Brain
4.RA.2.C	Save Your Brain
4.RA.3.A.a	First Aid
5.FS.2.B.a	Cat: Leaping Forward (Level 3)
	Dog: Leading the Pack (Level 3)
5.ME.2.A.a	Foods: Cooking 301 (Level 3)
5.ME.2.B.a	Foods: Cooking 201 (Level 2)
6.FS.2.C.b	Gardening: Level B: Let's Get Growing (Grades 5-6)
6.PS1.B.a	Cat: Leaping Forward (Level 3)
	Dog: Leading the Pack (Level 3)
	Clothing: Shopping in Style
8.ME.3.A.a	Clothing: Shopping in Style

Math

K.NS.1.A.a	Clover Kids: Activity Guide
2.GM.B.4	Gardening: Level A: See Them Sprout (Grades 3-4)
2.GM.B.6	Landscape Design: Grow a Beautiful Space (Level 1)
2.GM.B.7	Woodworking: Measuring Up (Level 1)
3.DS.A.1	Junk Drawer Robotics: Give Robots a Hand (Level 1)
3.RA.A.4	Junk Drawer Robotics: Give Robots a Hand (Level 1)
3.RA.D.a	Small Engines: Warm It Up! (Level 2)
4.D.S.3.A.1.	Junk Drawer Robotics: Mechatronics (Level 3)
4.GM.A.1	Junk Drawer Robotics: Give Robots a Hand (Level 1)
4.GM.B.4	Woodworking: Making the Cut (Level 2)
4.GM.B.5	Woodworking: Nailing it Together (Level 3)
4.GM.C.8	Landscape Design: Grow a Beautiful Space (Level 1)
4.NBT.A.5	Agronomy: Green and Growing

4.NBT.A.6	Entomology: Teaming With Insects
4.NF.A.2	Woodworking: Nailing it Together (Level 3)
4.NF.B.6	Sewing: STEAM Clothing 1 - FUNdamentals
4.RA.1.C.1	Junk Drawer Robotics: Mechatronics (Level 3)
5.GM.B.5	Junk Drawer Robotics: Robotics on the Move (Level 2)
5.GM.C.7	Scratch Programming (Facilitators Guide)
5.GM.D.8	Aerospace: Pilot in Command (Level 4)
5.GM.D.9	Aerospace: Pilot in Command (Level 4)
5.NBT.A.7	Landscape Design: Grow a Beautiful Space (Level 2)
5.RA.C.5	Agronomy: Green and Growing
6.DSP.B.4a	Sewing: STEAM Clothing 3 – A Stitch Further
6.NS.C.5	Scratch Programming (Facilitators Guide)
6.RP.A.1	Junk Drawer Robotics: Robotics on the Move (Level 2)
7.NS.A.3	Sewing: STEAM Clothing 3 – A Stitch Further
7.NS.A.3.1	Sewing: STEAM Clothing 2 – Simply Sewing

Personal Finance

PF.I.1.A	Junk Drawer Robotics: Robotics on the Move (Level 2)
	Youth Futures: 4-H Youth Futures SPIN Club Leader's Guide
PF.I.1.B	Junk Drawer Robotics: Robotics on the Move (Level 2)
	Gardening: Level D: Growing Profits (Grades 10-12)
	Clothing: Shopping in Style
PF.I.2.A	Gardening: Level D: Growing Profits (Grades 10-12)
PF.III.1.A	Small Engines: Tune It Up! (Level 3)
	Woodworking: 9 Finishing Up (Level 4)
	Sewing: STEAM Clothing 2 – Simply Sewing
	Gardening: Level D: Growing Profits (Grades 10-12)
PF.III.1.C	Gardening: Level D: Growing Profits (Grades 10-12)
	Sewing: STEAM Clothing 3 – A Stitch Further
PF.III.3.B	Clothing: Shopping in Style
PF.V.1.B	Clothing: Shopping in Style

Science

K.PS1.A.1	Clover Kids: Activity Guide
1.ETS1.B.a	Aerospace: Pre-Flight (Level 1)
1.ETS1.C.1	Small Engines: Crank It Up! (Level 1)
1.LS3.A.1	Dog: Wiggles and Wags (Level 1)
	Dog: Canine Connection (Level 2)
2.ETS1.B.1	Aerospace: Lift-Off (Level 2)
	Entomology: Teaming With Insects
	Junk Drawer Robotics: Give Robots a Hand (Level 1)
2.ETS1.C.a	Outdoor Adventures: Hiking (Level 1)
2.ETS1.C.1	Aerospace: Lift-Off (Level 2)
	Woodworking: Measuring Up (Level 1)
	Cat: Purr-fect Pals (Level 1)
	Cat: Climbing Up (Level 2)
	Dog: Wiggles and Wags (Level 1)
	Dog: Canine Connection (Level 2)
	Foods: Cooking 101 (Level 1)
	Foods: Cooking 201 (Level 2)
2.LS2.A.1	Agronomy: Seedy Business
2.PS1.A.1	Sewing: STEAM Clothing 1 – Fundamentals
	Sewing: STEAM Clothing 2 – Simply Sewing
2.PS2.A.1	Sewing: STEAM Clothing 1 - FUNdamentals
3.ETS1.B.a	Small Engines: Warm It Up! (Level 2)
3.ETS1.B.1	Junk Drawer Robotics: Give Robots a Hand (Level 1)
	Woodworking: Measuring Up (Level 1)
	Woodworking: Making the Cut (Level 2)
	Guinea Pigs: Cavy Project Leader Guide
3.ETS1.C.1	Aerospace: Reaching New Heights (Level 3)
	Small Engines: Warm It Up! (Level 2)
3.ESS2.D.1	Aerospace: Lift-Off (Level 2)
3.ESS3.B.1	Gardening: Level A: See Them Sprout (Grades 3-4)
3.LS1.B.1	Entomology: Teaming With Insects

	Gardening: Level A: See Them Sprout (Grades 3-4)
3.LS3.B.1	Entomology: Teaming With Insects
3.LS3.C.1	Gardening: Level A: See Them Sprout (Grades 3-4)
3.PS2.B.1	Sewing: STEAM Clothing 1 - FUNdamentals
4.ESS1.C.1	Geology: Introduction to Geology
4.ESS2.A.1	Agronomy: Green and Growing
4.ETS1.A.1	Pets: Scurrying Ahead (Level 2)
4.ETS1.B.a	Small Engines: Tune It Up! (Level 3)
4.ETS1.B.1	Woodworking: Nailing it Together (Level 3)
4.LS1.A.1	Agronomy: Seedy Business
	Cat: Leaping Forward (Level 3)
	Dog: Leading the Pack (Level 3)
	Floriculture: Level A
	Gardening: Level A: See Them Sprout (Grades 3-4)
	Pets: Scurrying Ahead (Level 2)
	Pets: Scaling the Heights (Level 3)
	Entomology: Teaming With Insects
4.PS2.A.2	Junk Drawer Robotics: Give Robots a Hand (Level 1)
	Junk Drawer Robotics: Robotics on the Move (Level 2)
4.PS3.A.1	Junk Drawer Robotics: Robotics on the Move (Level 2)
4.PS3.B.1	Junk Drawer Robotics: Robotics on the Move (Level 2)
	Junk Drawer Robotics: Mechatronics (Level 3)
4.PS3.B.2	Junk Drawer Robotics: Robotics on the Move (Level 2)
	Junk Drawer Robotics: Mechatronics (Level 3)
4.PS3.C.1	Junk Drawer Robotics: Give Robots a Hand (Level 1)
5.ESS3.C.1	Small Engines: Tune It Up! (Level 3)
	Agronomy: Green and Growing
	Floriculture: Level B
	Pets: Scaling the Heights (Level 3)
5.ETS1.A.1	Aerospace: Pilot in Command (Level 4)
	Junk Drawer Robotics: Give Robots a Hand (Level 1)

5.ETS1.B.1	Junk Drawer Robotics: Robotics on the Move (Level 2)
	Landscape Design: Grow a Beautiful Space (Level 2)
	Aerospace: Pilot in Command (Level 4)
	Robotics 1: with EV3
5.ETS1.C.1	Robotics 2: EV3N more
	Landscape Design: Grow a Beautiful Space (Level 2)
	Aerospace: Pilot in Command (Level 4)
	Junk Drawer Robotics: Give Robots a Hand (Level 1)
	Woodworking: 9 Finishing Up (Level 4)
	Agronomy: Green and Growing
	Gardening: Level B: Let's Get Growing (Grades 5-6)
	Landscape Design: Grow a Beautiful Space (Level 2)
	Foods: Cooking 301 (Level 3)
	Foods: Cooking 401 (Level 4)
	Entomology: Teaming With Insects
5.LS1.C.1	Floriculture: Level A
	Floriculture: Level B
	Floriculture: Level C
5.LS2.B.1	Gardening: Level B: Let's Get Growing (Grades 5-6)
5.PS3.D.1	Gardening: Level B: Let's Get Growing (Grades 5-6)
6-8.ETS1.B.1	Junk Drawer Robotics: Give Robots a Hand (Level 1)
	Junk Drawer Robotics: Robotics on the Move (Level 2)
	Junk Drawer Robotics: Mechatronics (Level 3)
	Floriculture: Level C
6-8.ETS1.B.2	Junk Drawer Robotics: Robotics on the Move (Level 2)
	Robotics 1: with EV3
6-8.ETS1.B.3	Junk Drawer Robotics: Robotics on the Move (Level 2)
	Junk Drawer Robotics: Mechatronics (Level 3)
	Robotics 1: with EV3
	Robotics 2: EV3N more
6-8.LS1.B.1	Gardening: Level C: Take Your Pick (Grades 7-9)

6-8.LS1.B.2	Gardening: Level B: Let's Get Growing (Grades 5-6) Gardening: Level C: Take Your Pick (Grades 7-9)
6-8.LS1.C.1	Floriculture: Level B Gardening: Level C: Take Your Pick (Grades 7-9)
6-8.LS2.B.1	Gardening: Level B: Let's Get Growing (Grades 5-6)
6-8.PS1.A.2	Floriculture: Level C Sewing: STEAM Clothing 2 – Simply Sewing Sewing: STEAM Clothing 3 – A Stitch Further
6-8.PS2.B.1	Junk Drawer Robotics: Robotics on the Move (Level 2) Junk Drawer Robotics: Mechatronics (Level 3)
6-8.PS3.A.4	Sewing: STEAM Clothing 3 – A Stitch Further
6-8.PS3.B.1	Sewing: STEAM Clothing 2 – Simply Sewing
6-8.PS4.A.2	Sewing: STEAM Clothing 2 – Simply Sewing
8.LS1.A.1	Floriculture: Level D
8.LS2.C.1	Gardening: Level C: Take Your Pick (Grades 7-9)
9-12.LS2.C.2	Gardening: Level D: Growing Profits (Grades 10-12)
9-12.LS4.A.1	Gardening: Level D: Growing Profits (Grades 10-12)
9-12.PS2.B.2	Junk Drawer Robotics: Mechatronics (Level 3)
9-12.PS3.C.1	Junk Drawer Robotics: Mechatronics (Level 3)
12.LS2.C.1	Gardening: Level C: Take Your Pick (Grades 7-9)

Social Studies

K.GS.2.C.a	Civic Engagement: Public Adventures Guide's Handbook
K.PC.1.F.a	Civic Engagement: 4-H Civic Engagement Skills Guide
K.PC.1.F.a.b	Clover Kids: Activity Guide
K.PC.2.C.a	Leadership: Step Up to Leadership: Mentor Guide for Grades K-5
K.RI.6.B.a	Leadership: Step Up to Leadership: Mentor Guide for Grades K-5
1.EG.5.C.a	Civic Engagement: Public Adventures Guide's Handbook
1.EG.5.C.b	Civic Engagement: Public Adventures Guide's Handbook
1.PC.1.D.a	Civic Engagement: Public Adventures Guide's Handbook
1.PC.1.E.a	Civic Engagement: Public Adventures Guide's Handbook Leadership: Step Up to Leadership: Mentor Guide for Grades K-5

1.RI.6.A.a	Civic Engagement: 4-H Civic Engagement Skills Guide
1.RI.6.B.a	Civic Engagement: 4-H Civic Engagement Skills Guide
2.EG.5.A.a	Aerospace: Lift-Off (Level 2)
	Civic Engagement: Public Adventures Guide's Handbook
2.EG.5.B.b	Pets: Pet Pals (Level 1)
2.GS.2.C.a	Civic Engagement: 4-H Civic Engagement Skills Guide
2.PC.1.D.a	Civic Engagement: Public Adventures Guide's Handbook
3.E.4.A.a	Sewing: STEAM Clothing 1 - FUNdamentals
3.EG.5.F.a	Geology: Introduction to Geology
3.PC.1.F.b	Civic Engagement: 4-H Civic Engagement Skills Guide
3.TS.7.A.b	Leadership: Step Up to Leadership: Mentor Guide for Grades K-5
4.E.4.A.b.	Entrepreneurship (Level 3)
5.PC.1.E.a	Leadership: Cracking the Code of Leadership
5.EG.5.A.b.	Entrepreneurship (Level 2)
5.TS.7.B.a.	Entrepreneurship (Level 3)
5.TS.7.D.a.	Entrepreneurship (Level 2)
5.TS7.G.a.	Entrepreneurship (Level 3)

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Missouri Learning Standards for 4-H Curriculum



I pledge

my **HEAD** to clearer
thinking,

my **HEART** to
greater loyalty,

my **HANDS** to larger
service, and

my **HEALTH** to
better living,

for my club, my community,
my country, and my world.



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