Lesson 3
Have a Healthy Baby: Weight Gain During Pregnancy

Knowledge objectives
Students will understand why weight gain is important during pregnancy.

Behavioral objectives
Students will chart weight gain throughout pregnancy and modify recipes to help manage weight gain.

Review of Lesson 2
Ask students: What are some ways MyPyramid can help us make healthy choices? (Eat foods from all the food groups on MyPyramid, choose foods from the base of MyPyramid that give us lots of nutrients without a lot of calories)

What are some grain foods from the base of MyPyramid? (Ask about each food group)

Doing the lesson
Why is weight gain necessary? Eating healthy foods and gaining enough weight during pregnancy is important for your health and for the proper growth of your baby.

If you do not gain enough weight, your baby may be born small. Small babies, also called low birth weight babies, have a greater chance of health problems.

You can also gain too much weight, in which case your baby may grow too big. This may cause problems during pregnancy and delivery.

How much weight should I gain?
Your health-care provider will determine how much weight you should gain based on how much you weighed before pregnancy. If you were
underweight before pregnancy, you may need to gain a little more weight. If you were overweight before pregnancy, you may need to gain a little less. The extra pounds for mom add up to a healthier, stronger baby.

Give students the *Have a healthy baby* newsletter. Direct their attention to page 4, *Have a healthy baby*. Discuss the section about gaining weight. Pregnancy is not the time to lose weight, and skipping meals during pregnancy is not recommended.

If your health-care provider says that you need to slow down weight gain, use the tips on the right side of the page. Discuss these tips.

**Do Growing Together, Month by Month activity**

The weight you need to gain during pregnancy helps your body support your growing baby in many ways.

**Do Where Does the Weight Go? activity**

We can see how important it is to gain enough weight during pregnancy to support your own health and the growth and development of your baby. But many women worry about gaining too much weight during pregnancy. They are afraid they will not be able to lose the weight after their baby is born.

If your health-care provider tells you to slow down weight gain, you can still enjoy the foods you love to eat by learning a few tricks to make them healthier. One trick is to modify recipes by substituting lower-fat, lower-calorie ingredients in recipes. Let’s look at some examples.

Direct students’ attention to pages 4 and 5 of the newsletter. Ask them what changes they would like to make in their meals and snacks.

**Do Take a Taste for You and Your Baby activity**

The theme is nutrient-dense snacks. Suggested foods for tasting include Power-Up Bars and Yo Baby Pudding.

**Do I Can Still Have Chocolate? activity**

**Review of Lesson 3**

Ask the students to give some reasons why it is important to gain enough weight while they are pregnant. (*To support their own health, to support the growth and development of their babies, to prevent low birth weight babies*)

Ask them to name three ways to manage weight gain during pregnancy. (*Anything from Have a healthy baby.*)
Core activity
Growing Together, Month by Month

1 Direct students’ attention to pages 2 and 3 of the newsletter, Growing together, month by month .... Discuss how the baby grows and develops each month. Each month, they should enter the amount of weight they gain on this chart. Their health-care providers should help them determine their appropriate weight gain.

2 Teach the students how to chart their monthly weight gain on page 3:
   • In the first column, each student should enter her pre-pregnancy weight.
   • In the Month 1 column, enter the amount of weight gained during the first month in the bottom row. Then put a mark in the column above next to the amount in pounds.
   • In the Month 2 column, add the amount of weight gained during the second month to the amount gained in the first month. Enter this amount in the Month 2 field and put a mark in the column above next to the amount in pounds.
   • Continue through the ninth month. The amount of weight in the Month 9 field is the total weight gained during the pregnancy. Make a chart by connecting the marks in each column.

3 Follow-up activity: Ask students to bring their charts to class so you can check progress from time to time and make sure everyone understands how to chart their progress.
Core activity

**Where does the Weight Go?**

1. Give each student a copy of the puzzle pieces and template handout. Talk about where added weight goes during pregnancy. Ask if they are surprised about any of the sources of weight gain.

2. Have the students place the puzzle pieces as you discuss weight gain. (See the extended activity below.)

3. Ask the students if this activity helps them understand why they feel tired all of the time. Tell them they can refer to page 1 of the *Have a healthy baby* newsletter for a reminder of where the weight goes.

**Extend the activity**

Use the pregnancy apron to help demonstrate where the weight is distributed. Ask a volunteer to put on the apron. As you explain where the weight goes, have another volunteer slip lead shot into the apron pockets. Have teen dads and non-pregnant teen girls wear the apron to help them understand what the weight gain of pregnancy feels like.

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**Purpose**

Helps expectant moms understand why it is important to gain weight during pregnancy by demonstrating how weight is distributed in their bodies.

**Supplies needed**

- Maternal Weight Gain Puzzle Pieces (H-14)
- Maternal Weight Gain Template (H-15)
- small plastic ziplock bags
- scissors

**Teacher references**

- Pregnancy Apron Instructions
- optional: Pregnancy Apron Pattern (ask your unit coordinator for a copy)
- Maternal Weight Gain Solution

**Student handouts**

- Teen Parents Newsletter: Have a healthy baby*

**Advance preparation**

- Make a copy of the puzzle pieces and template for each student.
- Cut out the puzzle pieces and place each set in a ziplock bag.
- Optional: Make pregnancy apron using the furnished instructions.
Maternal Weight Gain Solution

- Breast: 1-3 lbs.
- Uterus: 2-3 1/2 lbs.
- Placenta: 1 1/2 lbs.
- Amniotic Fluid: 2 lbs.
- Muscle & Fat: 8-10 lbs.
- Blood & Other Body Fluid: 6 1/2 lbs.
- Baby: 7-8 lbs.
Teacher reference

Pregnancy Apron Instructions

Moderate sewing skills are needed to complete this project.

Cutting and sewing instructions
1. Cut out pattern pieces along solid outer line.
3. Fold fabric lengthwise (along 2-yard length) with the wrong sides together. Pin pattern pieces to fabric and cut out around outer edges of pattern.
4. Leave pattern pieces pinned on fabric until needed to make identifying the pieces easier.
5. Mark top front pocket placement lines, belt placement, and pocket stitching lines on right side of appropriate fabric pieces.
6. Sew bias tape to top and bottom of top front pocket.
7. Pin top front pocket to apron front along placement line and stitch bottom only of pocket to apron front.
8. Baste side seams of top front pocket close to the edges of the apron front to hold in position.
9. Stitch top front pocket to apron front along single stitching line to divide pocket into two sections.
10. Sew bias tape to top only of bottom front pocket.
11. Pin bottom front pocket to apron front; making sure bottom edges are even. Baste side and bottom edges to hold pocket in position. Make sure the basting is close to the edges.
12. Stitch on two stitching lines of bottom front pocket to divide pocket into three sections.
13. Sew bias tape to top only of bottom back pocket.
14. Pin bottom back pocket to apron back; making sure bottom edges are even. Baste side and bottom edges to hold pocket in position. Make sure the basting is close to the edges.
15. Stitch bottom back pocket to apron back along single stitching line to divide pocket into two sections.
17. Sew bias tape to side, bottom and neckline edges. This will finish all raw edges of the apron. Note: The front and back apron sections are not sewn together at the sides.

Sewing and attaching belt
• Fold the 60- by 4-inch belt pattern piece in half lengthwise with right sides together. Sew down the long raw edge with a ½-inch seam. Leave both short
ends open. Trim seam to ¼ inch and turn belt right side out. Tip: Fold short edges over a ruler or pencil to help turn belt inside out. Tuck edges of short ends under ½ inch and topstitch to finish raw edges. Attach belt to apron at belt placement line on back of apron, just above center of the bottom back pocket.

**Bagging lead shot**

- Weigh shot and place into plastic freezer storage bags as noted below. Seal bags.

<table>
<thead>
<tr>
<th>Double-bag in pint-size bags:</th>
<th>Triple-bag in quart-size bags due to excessive weight:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• 2 pounds = Amniotic fluid</td>
<td>• 7 pounds = Baby</td>
</tr>
<tr>
<td>• 1½ pounds = Placenta</td>
<td>• 10 pounds = Muscle and body fat stores</td>
</tr>
<tr>
<td>• 1½ pounds = Breast (make two)</td>
<td></td>
</tr>
<tr>
<td>• 3½ pounds = Uterus</td>
<td></td>
</tr>
<tr>
<td>• 6½ = Blood and other body fluids</td>
<td></td>
</tr>
</tbody>
</table>
Core activity
Take a Taste for You and Your Baby

Snacks are a great way to fit in the extra nutrients you and your baby need.

Power-Up Bars
Makes 18 bars

Equipment:
• large mixing bowl
• medium pan
• large spoon
• measuring cups
• measuring spoons
• 9- by 13-inch baking pan
• cooking spray

Ingredients:
• 2½ cups toasted rice cereal
• 2 cups uncooked quick-cooking oatmeal
• ½ cup raisins
• ⅓ cup firmly packed brown sugar
• ⅓ cup light corn syrup
• ⅓ cup peanut butter
• 1 teaspoon vanilla

Instructions:
1. Spray baking pan with cooking spray.
2. Measure rice cereal, oatmeal and raisins into a large mixing bowl. Stir well.
3. In a medium pan, mix together brown sugar and corn syrup. Cook, stirring constantly, over medium heat until mixture boils. When mixture boils, remove from heat.
4. Stir peanut butter and vanilla into the brown sugar mixture and blend until smooth.
5. Pour the brown sugar mixture over the cereals and raisins in the large bowl and mix well.
6. Press mixture into baking pan and cool.
7. When cool, cut into 18 bars.

Yo’ Baby Pudding
Makes 4 large or 8 small servings

Equipment:
• mixing bowl
• large spoon
• measuring cups
• small serving bowls
• plastic spoons

Ingredients:
• ¼ cup low-fat milk
• 1 (3½-ounce) package of pudding
• 2 cups low-fat yogurt (any flavor)
• 1 cup fruit pieces

Instructions:
1. Add milk to the pudding and stir until smooth.
2. Add yogurt and stir.
3. Refrigerate until ready to serve. Serve over fruit pieces.
Core activity
I Can Still Have Chocolate?

1. Have students work in small groups. They are to modify the *Cream Cheese Brownie Recipe* to cut down on fat, sugar and calories. They should use *How to save calories through ingredients* list (page 5 in the newsletter) to help them make modifications. Tell students that not all ingredients in the recipe need to be changed.

2. Allow five to 10 minutes to complete the recipe modifications.

3. Have each group share its ideas. Make notes on the chalkboard or flip chart recipe as the groups give their ideas. Use the *Brownie Recipes* teacher reference to help lead the discussion. Be sure to talk about what changes made a difference. Tell students that substituting applesauce for cream cheese and cutting down on sugar and eggs is only one way to modify the recipe.

Ask students: Where do you think the brownie made from the modified recipe would fit on MyPyramid? *(At the top of the Grain Group)*

How often should we eat the modified brownie? *(Even though the modified brownie is lower in calories, fat and sugar than the regular brownie, it is still a high-calorie food because of the solid fat and sugar it contains. We should only eat the modified brownies once in a while.)*

Extend the activity
If you have time and cooking facilities, divide students into two groups. Have group #1 make the regular brownie recipe. Have group #2 make a modified version based on the ideas developed in class. Have a blind* taste test. Which version did they like best?

If you don’t have cooking facilities, students can bake both recipes at home for family members and have a blind taste test. At the next class, have them tell the class which recipe their family liked best.

* A blind taste test is one in which participants taste two products without knowing which version they are tasting.
Here is one example of how to reduce fat, sugar and calories in the brownies by altering the ingredients:

**Cream cheese brownie recipe**  
_Makes 16 bars_

- ¾ cup (1½ sticks) butter, melted
- 2½ cups sugar
- ½ teaspoon baking powder
- ¼ teaspoon baking soda
- ¼ teaspoon salt
- 3 eggs
- 1¼ cups flour
- 4 squares unsweetened chocolate
- 1 (8-ounce) package cream cheese

**Modified brownie recipe**  
_Makes 16 bars_

- ½ cup (1 stick) butter, melted
- 1½ cups sugar
- ½ teaspoon baking powder
- ¼ teaspoon baking soda
- ¼ teaspoon salt
- 1 egg, plus 4 egg whites
- 1¼ cups flour
- 4 squares unsweetened chocolate
- ½ cup applesauce

**Nutrient analysis* of recipes:**

<table>
<thead>
<tr>
<th>Nutrients per serving</th>
<th>Original recipe</th>
<th>Modified recipe</th>
<th>Modified version has:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calories</td>
<td>320</td>
<td>200</td>
<td>120 fewer calories</td>
</tr>
<tr>
<td>Calories from fat</td>
<td>160 (50 percent)</td>
<td>80 (40 percent)</td>
<td>10 percent fewer calories from fat</td>
</tr>
<tr>
<td>Total fat</td>
<td>17 grams</td>
<td>9 grams</td>
<td>8 grams less total fat</td>
</tr>
<tr>
<td>Saturated fat</td>
<td>6 grams</td>
<td>2.5 grams</td>
<td>3.5 grams less saturated fat</td>
</tr>
<tr>
<td>Cholesterol</td>
<td>55 milligrams</td>
<td>15 milligrams</td>
<td>40 milligrams less cholesterol</td>
</tr>
<tr>
<td>Sodium</td>
<td>150 milligrams</td>
<td>70 milligrams</td>
<td>80 milligrams less sodium</td>
</tr>
<tr>
<td>Total carbohydrate</td>
<td>41 grams</td>
<td>31 grams</td>
<td>10 grams less total carbohydrates</td>
</tr>
<tr>
<td>Dietary fiber</td>
<td>&lt;1 gram</td>
<td>&lt;1 gram</td>
<td>no change</td>
</tr>
<tr>
<td>Sugars</td>
<td>34 grams</td>
<td>23 grams</td>
<td>11 grams less sugars</td>
</tr>
</tbody>
</table>

* Nutrient analysis done using Food Processor software