

Connects

Grades K-2

Bone Builders and Bone Robbers

1. Ask students:

- Raise your hand if you have any bones in your body.
- Why do you need bones? (*Let students answer.*)

2. Tell students:

- Everyone has bones in their body.
- Bones do several very important things:
 - Bones give our bodies their shape.

Have students look at their hands and try to image what they would look like without any bones.

- Bones help our bodies move. Our muscles are attached to our bones. If we didn't have any bones our muscles couldn't move our body.
- Bones help protect our organs like our brains, lungs and heart.

Have the students place their hands on their heads. Explain that they are feeling their skull bones.

- Our skull bones help protect our brains in case we get hit in the head or fall. Without our skulls our brains could easily get hurt.

Purpose

Students will learn the function of bones and that calcium and exercise are needed for healthy bones.

Supplies needed

- Balls or other objects to represent calcium (2 per student)
- 4 safety pins
- Bone and stolen calcium containers and signs
- Sheriff star and bone robbers signs

Advance preparation

- Select location with space to run
- Place calcium objects around room/gym
- Cut out bone and stolen calcium signs and tape them to separate containers
- Cut out bone robbers signs and sheriff star. Place a safety pin on each.

Class time

30 to 40 minutes

Grade Level Expectations

Health/PE

F11CK

F11C2

HE1AK

HE1A1

HE1DK

Food Power Connection

Bone Station

3. Ask students:

- Do you think it is important to have strong, healthy bones? (*Yes*)
- What do you think helps us build strong, healthy bones? (*Calcium, physical activity. Students may also respond milk or milk products.*)

4. Tell students:

- Our bodies need calcium to build strong, healthy bones.
- Calcium is found in milk and milk products like cheese, yogurt, pudding and ice cream.
- Calcium is also found in other foods like orange juice with added calcium, broccoli, spinach, almonds, soybeans and soy foods like tofu and soy milk. But milk and foods made from milk are the best calcium sources.
- Physical activity is also important to build strong bones. The best bone-building activities are those in which our feet touch the ground like walking, running and jumping rope.

5. Explain to students how to play a game called *Bone Builders and Bone Robbers*. Tell students:

- Now we are going to play a game called *Bone Builders and Bone Robbers*.
- Scattered throughout the room/gym are balls (or other objects) that we are going to pretend are calcium. A **bone container** and a **stolen calcium container** have been placed at the front of the room.
- The class will be divided into three types of characters:

Bone builders:

- Most of you will be bone builders. Your job will be to pick up the calcium and take it to the bone to make it strong.

Bone robbers:

- Three of you will be bone robbers. The bone robbers are three habits that rob bones of their calcium and strength — drinking soda instead of milk, not exercising and never eating calcium rich foods. The bone robbers will each wear one of these signs that show the bone robbing habits.
- The bone robbers' job is to steal the calcium from the bone builders by tagging the bone builders when they have calcium in their hands.
- The bone robbers can only steal calcium when it is being held by a bone builder. Bone robbers cannot pick up the calcium lying around the room or take it out of the bone container.
- The bone robbers should place stolen calcium in the stolen calcium container.

Sheriff:

- There is one sheriff who will wear the star.

- The sheriff's job is to save the calcium by tagging the bone robbers after they have stolen it from the bone builders. Once tagged, the bone robbers must give their calcium to the sheriff who will return it to the room/gym for the bone builders to collect.
- Select the bone robbers and sheriff. Pin the signs on the bone robbers and star on the sheriff.
- Have the bone builders stand on the opposite side of the room from the bone robbers and sheriff. Instruct the students to begin the game when you say, "Go!"
- The activity continues until no more calcium remains for the bone builders to collect.

6. Repeat the activity with new bone builders, bone robbers and sheriff.

7. Ask students:

- Why do we need strong bones? *(To give our bodies shape, to help our bodies move and to protect our organs)*
- What are some habits that rob our bones of their calcium and strength? *(Drinking soda instead of milk, not exercising, never eating calcium-rich foods)*
- What helps us build strong, healthy bones? *(Eating calcium foods such as milk and milk products and physical activity)*

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N2001 New 8/08; Revised 8/09



Bone container sign

**Stolen
calcium**

Stolen calcium container sign



Sheriff's star

Bone robbers' signs

**Drinking soda
instead of milk**



Not exercising



**Never eating
calcium-rich foods**



