

Project FOCUS
Best Lessons
First Grade

Title of Lesson: How does food move through your body?

Theme: The Great Body Shop

Unit: Digestion and Nutrition

Performance Standards:

- Teaches students how food is fuel for the body
- Teaches students the term digestion
- Teaches students on where the food travels through the body
- Teaches students how digestion breaks food down for energy the body uses and stores

Enduring Standards:

- ❖ Asks questions
- ❖ Uses numbers to quantify
- ❖ Works in a group
- ❖ Uses tools to measure and view
- ❖ Looks at how parts of things are needed
- ❖ Describes and compares using physical attributes
- ❖ Observes using senses
- ❖ Draws and describes observations

Content(key terms and topics covered):

- *Digestion:* the body breaks down food for energy
- *Food:* things we eat
- *Fuel:* the body converts food into fuel
- *Energy:* the body uses this to do daily activities such as running, walking, jumping
- *Mouth:* Chews food; beginning of digestion
- *Esophagus:* long stretchy tube that breaks down food. The muscles push food to the stomach.
- *Stomach:* turns food into liquid and uses it for energy. Uses stomach acid to break down food. Most digestion occurs and is a stretchy sac. Also stores food.
- *Small intestine:* absorbs all the nutrients in the food and sends energy to the rest of the body. It is a tightly coiled tube that can be 10-22ft long.
- *Large Intestine:* takes up all the water from the food and sends to the rest of body. The larger, fat tube around the small intestine.

Learning Activity:

Time: 30 minutes

Description:

1. First use the definitions above to ask question how food gives you energy and are sources of fuel.
2. Students should be recapping on the fact that food is energy that the body needs. (can use an example of how gas powers a car, just like food powers a human).
3. Next have a diagram of the board of the digestive system (can print off from google or use whiteboard).
4. Start by teaching the definitions of the digestive system as you go through the body.
5. To show how to mouth chews food: get two plastic baggies, a pack of smarties, a cup of vinegar(can also use water), and two clear cups. Crush up a couple smarties into small pieces and put it in a baggie. Now put a couple of whole smarties in a bag. Have two students each take a baggie and cup of vinegar. Have them each pour the candy into the cup and let it dissolve. This will show how if the food is not chewed in the mouth, the body will take a long time to digest it.
6. To show how the Esophagus works: have one student hold the tube sock and the apple and try pushing it through slowly. This will teach them how hard it is to push things through the esophagus and how tightly the muscles squeeze the food.
7. To show how the stomach works: put the ice and fruit in the blender. Add the orange juice to represent stomach acid. Blend the solution and show them how that is stomach turning the food into liquid. Now they can have this smoothie as treat. (hand it out at the end of class to make it easier).
8. To show how the small intestine works, get a ball of yarn about 15ft long. Have two kids stand on opposite sides of the room and uncoil the yarn. This will allow them to actually see how long the small intestine is.
9. To show how the large intestine works: Pour water into a clear cup. Put a coffee filter over an open clear cup. In the cup with water and brown sugar. Then pour into the coffee filter and the water will turn somewhat clear again. This is the small intestine taking out all of the water out of the food.
10. Sum up all that they have learned and hand out the smoothies.

Materials Needed:

- Small carton of orange juice
- Strawberries and blueberries
- Sampling cups
- Brown sugar
- 4 clear cups
- Smarties
- Vinegar
- Water
- Tube sock
- Apple
- Yarn

- blender
- Coffee filter

Notes and Tips:

I definitely would get to the classroom a few minutes early to set up like mini stations for each body part. This way you can move through them pretty efficiently and now make as much of a mess. As you are doing the experiments, teach them the definitions of the body parts. Ask questions about what they think will happen during the mouth and large intestine section. This will show you if they know what the body part functions are. I recommend recapping questions or a worksheet of some kind to make sure they really understand what was taught. I would have tried to elaborate more on each experiment and asked questions after each one rather than asking all the questions at the very end.

Safety:

Use caution when letting them examine all of the materials. Do not allow them to handle the blender.