

# DIGESTION MODEL TEACHER GUIDE

## Materials (per group)

- Gallon plastic bags
- Pie-tin type tray
- Plate/tray/dish (for “waste” stage)
- 9 oz plastic cups (for water/OJ)
- 9 oz paper cups
- 16 oz plastic cups
- Pantyhose/tights (nude)
- Scissors
- 1/3 of a banana
- 1 cracker
- Seeds, popcorn kernels, etc.
- Orange juice
- Water

## Set-Up

1. Cut pantyhose/tights in half so that each leg is separate from the other.
2. Use scissors to punch a hole in the bottom of the paper cup. Be sure the hole is large enough to accommodate the extra ingredients.
  - a. The 9 oz plastic cup will act as a plunger and should reach the bottom of the paper cup inside.
3. Each student group needs 50 mL (about ¼ cup) of both orange juice and water in separate cups at their station.
4. Provide some of the groups one extra ingredient (e.g., popcorn kernels, sunflower seeds, etc.)

## Creating the Model

### *Mouth*

1. Add the cracker, banana, and a little water into the plastic bag.
2. Seal the bag shut.
3. Squeeze all the air out and seal the bag.
4. Squeeze the bag for about 1 min to smash up the food inside.

### *Stomach*

1. Carefully open the bag and add in the orange juice.
2. Squeeze all the air out and seal the bag.
3. Squeeze the bag for 2 or 3 minutes to smash up the mixture inside.

### *Small Intestine*

1. Set the closed end of the nylon leg into the pie pan.

2. Carefully cut a small hole in the corner of the plastic bag. Don't spill any of the contents inside.
3. Carefully pour the contents of the bag through the hole into the nylon leg. Be careful! Liquid will come out the sides of the nylon so make sure it all stays in the pan.

### *Large Intestine*

1. Squeeze the food down to the closed end of the nylon.
2. Cut the toe off the stocking and squeeze the remaining food out of the end and into the paper cup.

### *Waste*

1. Use the plastic cup to push the food through the hole in the bottom of the paper cup.