

# Our Delightful Digestive System

Can you name six of the organs that work together to help us digest food?

## MATERIALS



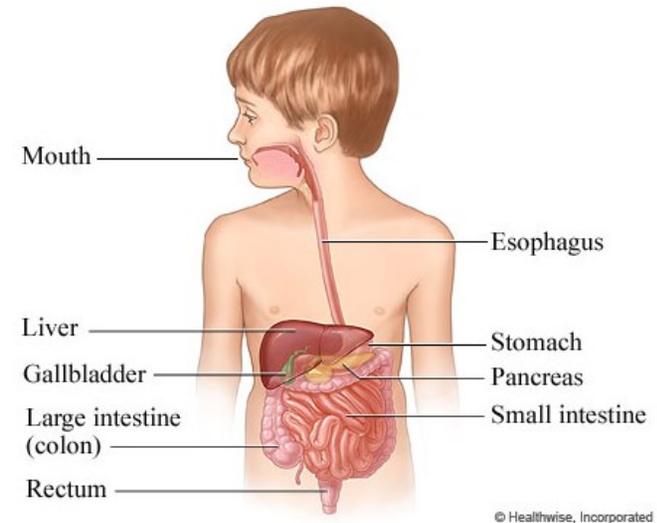
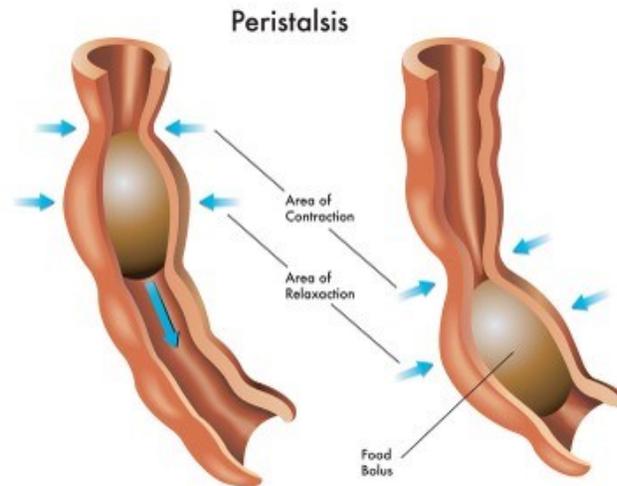
- ❖ Organ Labels
- ❖ Gallon Sized Bag
- ❖ Cereal
- ❖ Multi-Vitamin
- ❖ Spray Bottle of Water
- ❖ Sock (Toe-end cut out)
- ❖ Spray Bottle of Vinegar
- ❖ Raisins or Beans (Toxins)
- ❖ Tweezers or Pliers
- ❖ Sponge
- ❖ Sandwich Bag
- ❖ Scissors
- ❖ Measuring Cup
- ❖ Digestive System Worksheet
- ❖ Yarn or Rope

## Do the Experiment!

1. If you have friends with you, hand out different organ labels. If you are alone start with mouth around your neck and go from organ to organ according to the digestion sheet or video. The order is mouth, esophagus, stomach, liver, small intestine and large intestine.
2. Prepare your food by pouring 2 cups of cereal into a gallon sized bag. Drop a multi-vitamin into the cereal. Finally, add a handful of raisins or beans—these will be toxins. Mix it up so the multi-vitamin is hidden. Make sure the bag is completely sealed !
3. Begin digesting your food by following the instructions of your specific organ on your activity sheet. If you are with friends, hand the bag and organ sheet over to them when you are done. If you are alone do all the steps yourself!
4. Once digestion is complete, place the waste product into the sandwich bag. Explain to your family how you went from solid food to waste product!

## DID YOU KNOW...

Our bodies are truly scientific marvels. On average, the human body contains 100 trillion cells, 206 bones, 600 muscles and 78 organs. These organs work together to make **body systems** that perform specific functions. **Organs** are a collection of different tissues joined in a unit to perform specific jobs. Of the 78 organs in your body, scientists consider 10 to be the most important for life—they are known as vital organs, and are the skin, brain, heart, kidneys, liver, pancreas, stomach, small intestine, large intestine and lungs. Notice that half of these vital organs are part of the digestive system. It's very important to understand how the body breaks down the food we eat into the nutritional parts including vitamins, minerals and energy. Some other organ systems to explore include the muscular system (how the connection of the muscles help us to move), the respiratory system (the organs that enable us to use oxygen and remove harmful gas) and the cardiovascular system (how our blood is circulated throughout our body).



## CHALLENGE

1. Draw a diagram of the digestive system in your journal. Label all the organs and their function. Add any organs from the model that were not used during the experiment. Color each organ a different color so that each organ can be clearly seen.
2. Can you name other organs that make up a complete system?
3. What do you think is the largest organ of the human body? The smallest?

**STEAM Challenge:** For many years scientists have agreed that the average size of the small intestine for a human is 22 feet. An elephant's small intestine is 62 feet! How much bigger is an elephant's small intestines in comparison to a human's?