



Jonah and the Big Fish

(Jonah 1-4)

Tell

SCIENCE
LEADER GUIDE

Stomach Speak

Set Up: Fill spray bottles with water. Set up the demonstration in a large, open area, using the Digestive System Diagram on page 5 as a guide. Cut open the large plastic garbage bag and tape it to the floor. Place one spray bottle on the garbage bag. At one end of the bag, use the tape to make two parallel straight lines on the floor, 18 inches (46cm) apart and 3 feet (1m) long. Use the tape to make a square at the end of the lines. Place the salad tongs and one spray bottle in the square. At the opposite end of the bag, use the tape to make two parallel curvy lines on the floor, 18 inches (46cm) apart and about 15 feet (4.5m) long. Place the bowl in the middle and the garbage can at the end of the curvy lines. Place the crackers in one of the plastic sandwich bags and seal tightly. Wrap this bag in a piece of newspaper and place in a paper bag. Mark this bag "Food." Place a small plastic figure representing Jonah in a plastic sandwich bag. Wrap this bag in a piece of newspaper and place in a paper bag. Mark this bag "Jonah." Provide kid-sized non-latex gloves for kids who don't want to get their hands messy.

Activity Instructions

Welcome Spark Scientists. Today we're learning about telling God's story. Who was Jonah supposed to tell about God? (the Ninevites) What happened when Jonah didn't do what God asked him to do? (He was swallowed by a big fish.) I wonder if that fish had a stomachache. Stomachaches are one way that our bodies tell us there's something wrong. What other things do your bellies tell you? (I'm hungry. I didn't like some food. I'm sick.)

I would imagine that Jonah did give the big fish a bellyache. Most big fish don't eat people. We taste bad. How do you think Jonah's stomach felt when he was in the belly of the fish? (It hurt. It was nervous.) Jonah probably had a stomachache for lots of reasons. I bet the fish's belly smelled bad, which might have made Jonah's stomach hurt. Sometimes our stomachs can hurt when we're feeling scared and nervous. I bet Jonah's belly felt scared and nervous.

Today, we're going to explore more about stomachs and how they tell us things. Here on the floor is a big model of the digestive system.

Gather kids by the tape square where you put the tongs and the first spray bottle. **It all starts here, in the mouth. When we eat, what's the first thing we do? (bite, chew, use our teeth) That's what these tongs will be—teeth. When you chew food, have you ever noticed that it gets wet? That's spit/saliva.** Hold up water bottle. **This will be our spit.**

Move kids next to the parallel straight lines—the throat. **After we chew food, what happens? (We swallow it.) These straight lines will be the throat—the tube that takes food to the stomach. Food gets squeezed and mashed as it goes down.**

Spark Resources
Digestive System
Diagram (page 5)

Supplies
Large plastic garbage bag
Scissors
Masking tape
Newspaper
Paper bags
Heavy-duty plastic sandwich bags
Crackers
Small plastic figure
Spray bottles
Water
Small plastic salad tongs
Bowl
Garbage can
Marker
Kid-sized non-latex gloves (optional)

LOWER ELEMENTARY

Gather kids around the garbage bag. **What happens when food gets to the stomach?** (*It rolls around. It gets digested.*) **Stomachs make a liquid called acid that helps turn food into a slimy, stinky mess.** Show second spray bottle. **This will be our bottle of stomach acid.**

Move kids next to the parallel curvy lines—the intestines. **The food then moves out of the stomachs into the small intestine. In the small intestine, the food keeps getting smaller and smaller. As the food gets smaller, the energy from the food goes all over our body. This makes our bodies able to run and jump.** Point to the bowl. **We're going to use this bowl as the place where all the energy pieces go.**

What happens to the things that don't go all over our bodies to give us energy? (*I don't know. They come out as poop.*) **Everything that doesn't go into our blood goes through our large intestine and comes out our bottoms as waste products.** Have kids walk along the curvy lines to the garbage can.

Now that we know how it all works, let's see it in action. Have kids stand at different parts of the digestive system: the mouth, throat, stomach, small intestine, large intestine, and waste. If possible, have two kids at each location. **As I explain what's happening to each piece of food, you'll pass it from one part of the digestive system to the next.** Expect lots of giggles!

1. Hold up the bag with crackers inside. **Here's a piece of food. The energy is trapped inside. We'll work together to get it out.**
2. Hand the bag of food to the kids with the tongs. **We'll start at the mouth. First, the teeth will tear open the outer layer.** Allow time for the kids with salad tongs to smash the crackers. **As we chew, the food gets all wet with spit.** Have kids with the spray bottle spray the food.
3. **After we chew food, we swallow it and it goes down the throat.** Have kids pass the food bag to the kids at the throat. **As it goes down, it gets squeezed and mashed.** Have kids smash and squeeze the bag as they pass it to the kids in the stomach. By this time, the paper should be getting shredded.
4. **In the stomach, the food gets covered with stomach acid.** Have kids in the stomach spray the food some more. **Our stomach muscles are very strong, so the food gets mashed.** Encourage the kids to mash the bag. When the crackers become visible through the paper, be sure that everyone has the chance to see them.
5. Have kids pass the food from the stomach to the small intestine. **In the small intestine, the tiny food pieces turn into energy that goes all over the body.** Have kids open the plastic bag and pour the cracker dust into the bowl.
6. Have kids pass the food from the small intestine to the large intestine. **Everything that's left keeps moving through the large intestine until it ends up as waste.** Have kids throw the remaining materials away in the garbage can.

Now that we know how it works, switch stations, and let's do it one more time. But this time, we're going to use a special piece of food. What does this bag say? (Jonah) We're going to see what happens as Jonah goes through our digestive system. Repeat the steps above using the Jonah bag. As Jonah goes through the digestive system, ask kids these questions: **What do you think it felt like as the fish chewed Jonah and covered him in spit? What do you think it felt like as Jonah slid down the fish's throat? How do you think the fish's stomach felt when Jonah was inside?**

Stop after Jonah gets to the stomach. **Jonah didn't go through the fish's intestines. What happened to Jonah in the story?** (*He got spit out.*) **Once Jonah agreed to go to Nineveh, the fish spit Jonah out.** Take Jonah out of the bag and send him back up to the mouth, while the rest of the packaging goes down to the garbage can. **I bet the fish's stomach felt a lot better after Jonah wasn't in there anymore. Our stomachs can tell us lots of things!**

Jonah had an important job. He needed to tell the Ninevites all about God, but he didn't want to do it. So he ended up in the belly of a fish. I bet the fish's belly was telling the fish that having Jonah inside didn't feel good. And I know Jonah knew that being inside the fish's belly didn't feel good. Jonah knew what the right thing to do was, and when he agreed to go to Nineveh, he got out of the belly! You did a great job learning about our digestive system today, Spark scientists. Remember to tell everyone about God!

Digestive System

