



**Your Tummy Helps Your Brain-REALLY? (🧠 A Physical Health Story)  
(Kindergarten – 5-6 yrs.)  
Demonstration: Can You Stomach This?**



**STORY CONNECTION-SLIDE 13 (Approx Time: 5-10 mins)**

Your tummy and your brain work together to get food. Your tummy then changes the food into energy. Your brain needs energy to do all the things that it has to do.

**Materials needed:**

- Video Link: <https://www.youtube.com/watch?v=QLI28avTGpg> (1:01)
- Sliced bread
- Water
- Ziploc bag

**Preparation needed:**

- Open the video link and have it ready—this is the same video from activity #3
- Set up other materials in a place where all student(s) can see such as on the floor in front of a small desk or table, under a document camera, etc.

**Instructions:**

1. In this demonstration, student(s) will see how the stomach uses enzymes to break down foods so they can pass through the digestive system.
2. Start by asking the student(s) if they remember the video they watched about how the body uses food to make energy. Have student(s) tell you what they remember.
3. Show the video.
4. Review the path our food takes (mouth, esophagus, stomach, small intestines, large intestines, restroom) and review that this is the digestive system.
5. This process means our body is breaking down the food, so it can go to all the parts that need energy, including our brain.
6. Next, explain in simple terms about enzymes. Explain that digestive enzymes speed up chemical reactions that break down large food molecules into small molecules. This way our bodies can use the food easier and better.
7. Tell the student(s) that these enzymes are in our saliva, mouth, stomach, and other organs in the body.
8. Have the student(s) think about what would happen if they put a cracker or piece of bread in their mouth and just let it stay in there without chewing it. What would happen? They should say that it would start to get mushy and start to taste different.
9. Show the student(s) the Ziploc bag, the water, and the bread. Tell them that these materials are going to show us how enzymes help with digestion since we cannot see it happening inside our bodies.

10. The Ziploc bag represents the stomach, the water represents the enzymes, and the bread represents the food. Before beginning the demonstration, tell student(s) what each item represents.
11. Place a slice of bread in the bag (food in the stomach).
12. Add 2-3 tablespoons of water to the bag (enzymes mixing with food to break it down).
13. Gently squeeze the bag (represents the action of the stomach churning the food). This can be done by the facilitator or student(s).
14. What is happening to the bread? It is breaking down into an almost liquid form. Explain to the student(s) that this is like chyme (the pulpy acidic fluid which passes from the stomach to the small intestine, consisting of gastric juices and partly digested food).
15. Why does food have to be broken down? So it can pass through the digestive system and be used by our bodies to get energy that makes our bodies AND brains happy.

Demonstration Credit: <https://thehomeschoolscientist.com/science-saturday-the-digestive-system/#:~:text=Place%20a%20piece%20of%20bread, stomach%20into%20the%20small%20intestine>