

3.2 Let's make a stomach!

Quick challenges

- Ask children to chew a piece of bread. What happens to the taste? Can they explain what journey the bread will go on when they swallow it, using scientific language?
- Ask children to compare a tube of toothpaste to the food pipe? (squeezing food along the food pipe).

Switched on learning **WOW!**

Talk through the resources so that the children begin to understand what each might represent. Ask the children what happens before the food reaches the stomach, and what happens afterwards. Refer back to their flipchart drawings from *Food's Incredible Journey* if you need to.

Demonstrate it: Place the biscuits and banana inside the zip-lock bag; this represents eating. Now add the tablespoon of water – the saliva! Break the food up by crunching it inside the bag and mashing it up with the water. This is like chewing. Now mimic the action of the stomach by adding an acid – the orange juice. Keep mashing or kneading the food until you have a paste-like substance.

Get in groups: Now, the children, in their groups can make their own stomachs. You might use the *Let's think like Scientist!* prompts here to get the children thinking and discussing in their groups, as they make their stomachs.

The next part can be a teacher demonstration only or the children can continue in groups.

Demonstrate it/Get in groups: Talk about the mixture moving over the small intestine. This is where all the nutrients or 'goodness' is taken out of the food. The small intestine is in a 'concertina' type shape all wrapped up like a squashed skipping rope. You could demonstrate this by showing a skipping rope bundled in your hands and explaining that you would need three of them to match the length of a human small intestine.

Now take the part digested food and spoon it into the nylon stocking or pop-sock. Squeeze it down to the bottom so it is squished up into a ball-like mixture. This is emulating the large intestine, or colon, where water is absorbed from the remaining food-stuff. Demonstrate this by squeezing the mixture and extracting as much of the water as possible over a bucket or sink. What you are left with is the poo!

What you will need

Per group or for teacher demo:

- 1 zip-lock plastic bag
- 1 cream cracker
- 2 ripe bananas (cut into pieces)
- 50 ml orange juice
- 1 tablespoon water
- 1 stocking
- 1 plastic cup with a hole cut into the bottom of it

Support and extend

- **Support them:** You might repeat the demonstration of the digestion process but this time involve those who are having difficulty in your demonstration. Can they stand beside your demonstration and point to the parts of their body as they are represented in the demonstration?
- **Extend them:** Find out how Dr Beaumont discovered digestion. Children love this gruesome story! Can they research him, create a report using ICT and present it to the class?