

Practical: Digestive System



This practical guide has been designed to accompany the experiment film 'Digestive System'

<http://www.nationalstemcentre.org.uk/elibrary/science/resource/11604/digestive-system-experiment>

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What will you need?

Resources (per group):

- 1/3 banana
- 1 cream cracker
- Paper cup with hole in the bottom
- 50ml water
- Orange juice
- Sealable plastic sandwich bag
- Scissors
- A stocking (or one leg cut from a pair of tights)
- Paper towels
- A plastic or aluminium tray

What will you do?

1. Put down plenty of newspaper to cover a table, and use a plastic tray to catch any mess.
2. Place the cream cracker, banana and orange juice (which represents stomach acid) into the plastic sandwich bag. The bag represents the stomach.
3. Add the water, which represents saliva.
4. Squeeze all the air out and seal the bag.
5. Squeeze the bag for 2 or 3 minutes to smash up the mixture inside. This mimics the action of our stomach walls breaking down food.
6. Place the plastic sandwich bag and stocking over a tray. Cut a small hole in the corner of the bag and transfer the contents into the stocking. The stocking represents the small intestine.
7. Squeeze the food through the stocking. The liquid that ends up in the tray represents the nutrients that are absorbed by the body and used for growth and energy. The food that remains inside the stocking represents the waste that can't be absorbed by the body.
8. Cut the toe off the stocking and squeeze the remaining food out of the end and into the plastic cup. The cup represents the large intestine.
9. Finally, push the food (waste) through the bottom of the cup. This represents going to the toilet.