

What Goes In Must Come Out!

Making Poo Investigation

How does it turn into poo?



Do you ever wonder what happens to your food when you eat it?



Let's find out.....

You will need:

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| <ul style="list-style-type: none">• 1 banana• 1 scoop of coffee• Small bowl of porridge• A small cup of warm water• A small cup of breakfast juice (your personal choice)• A slice of toast/bread if desired – topping not necessary• Blue food colouring• Orange squash• Coffee – yes you do need this even if you don't drink it! | <ul style="list-style-type: none">• Small plastic bag• A pair of nude tights• A bowl• A potato masher• A pair of scissors• A funnel• Small plastic tube/cup• A tray• A large see-through bag- similar to a zippy wallet• A shot glass or similar small cup• A tube |
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Investigation:

Making breakfast -

1. Use the ingredients to make your breakfast...
2. Put the contents of your breakfast into the bowl.



Mouth and teeth -

3. Use your molar teeth (potato masher) to chew your breakfast.



- Your food needs to be broken down into even smaller chunks, and your Incisor teeth (scissors) help you to do this by 'cutting'.



- You need saliva (add a cup of water to your breakfast) – this helps to further break down the food.

Oesophagus and stomach -

- Now your food needs to travel down your oesophagus into your stomach. You can use a tube to recreate your oesophagus, or just pour your breakfast into the see through bag/wallet (the stomach).



- In your stomach, you have enzymes and acid which help you to digest your food. Add the enzymes (shot glass of blue food colouring mixed with water).



- Now you need to shake and squeeze the stomach to mix everything up! The stomach is a muscle which contracts and relaxes, providing a mechanical motion that mixes the food together.

Duodenum and Intestines –

- Next, you need to use the funnel to pour your digested breakfast into the pair of tights. The funnel acts as your duodenum, which is the first part of your small intestine.



10. The digestion continues with more enzymes, so add a shot glass of blue food colouring mixed with water. You could also add a shot glass of orange squash to recreate bile.
11. Once all of your breakfast is in the tights, squeeze them through the small intestine! In the small intestine, the nutrients (all the good stuff) is absorbed into the body.



12. The food then travels into the large intestine. This is where the excess water is absorbed in to the body, leaving a dry stool of waste product.



13. You need to get a small bag (rectum) and cut a small hole in **one** of the corners. Now cut a hole in the bottom of the tights. Squeeze the waste from the tights (large intestines) into the small bag (rectum), until it is full. The bag representing your rectum, shows how your faeces is stored.



Are you ready for a poo yet? Can you feel it? The rectum tells the brain when you are ready to pop to the loo...

14. Finally, cut a small hole in to the bottom of the (rectum) bag... The hole that you have just cut is your anus, where the poo comes out. For an authentic poo effect, spiral the waste for an ornate faeces. Ta dah!



Should we eat bugs?



Quest 1 – The food we eat

Our food comes from the store, right? Not exactly. In this adventure we'll explore the origins of what we eat, and learn about the impact our diets have on the environment. We'll also see the surprising role bugs play in our food systems. (They pollinate 1/3 of our food and educator Emma Bryce shows us they are actually pretty tasty and high in protein!) After the video, continue on to other sections to learn more, interact, act, and share.

Watch the video clip

https://www.youtube.com/watch?v=rDqXwUS402I&feature=emb_title

Partner up with a family member or a friend and discuss the question

should we eat bugs?

Extend your learning

The Planet Food interactive aggregates the contents of your meal to generate a map showing the global footprint your plate makes before it even gets to your plate, and puts you in charge of the world wide journey a bar of chocolate will take before it gets to you.-

Play - <https://www.nationalgeographic.org/media/planet-food/>

Build and share

Build and share a "crazy plant"! Collect fruit, vegetables, spices, and treats and put them together to invent a crazy plant with all of the necessary plant parts represented (a potato-apple-cereal plant! A cookie-lettuce-banana plant!) Think about what part of the plant the food comes from: celery (stem), carrot (root), apple (seed), broccoli (flowers), cinnamon (bark) etc. Take a photo of your plant and sharing it online with #EarthSchool (for ages 5-10)