

# Stomach in a Bottle



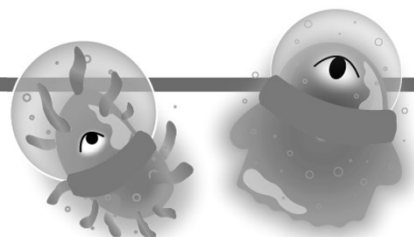
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## Equipment List

- Clear, Plastic/Glass Bottle with an airtight lid
- Fruit Juice or Squash (clearer liquids work best, e.g. apple juice)
- Grapes/raisins or hard boiled/gummy/chewy sweets

## Instructions

- 1) Open your bottle, this is going to represent your stomach.
- 2) Pour juice into your 'stomach' until about  $\frac{1}{3}$  full.
- 3) Carefully drop the fruit/sweets into your 'stomach' until the bottle is about  $\frac{2}{3}$  full.
- 4) Observe how the food in your 'stomach' separates; the solids sink to the bottom, the liquids in the middle, the gas at the top.
- 5) Securely attach the lid and turn the 'stomach' upside down; notice again how the solid, liquid and gas parts are separated thanks to Earth's **gravity**.
- 6) Now it is time to simulate spaceflight... SHAKE YOUR 'STOMACH'!
- 7) Watch how everything in your 'stomach' gets mixed together. This is what happens in an astronaut's stomach **all the time** when they are in space.
- 8) Feel free to deconstruct your bottle and add the juice and snacks into your *real* stomach!



# Make Your Own Germ



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## Equipment List

- Modelling Dough (e.g. Play-Doh, air dry clay, sticky putty)
- Sticks (e.g. straws, coffee stirrers, pipe cleaners)
- *Optional Eyes* (e.g. googly eyes, buttons)

## Instructions

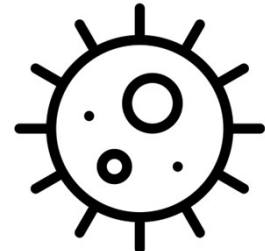
1) Choose your Germ!



**Bacteria**



**Fungi**



**Virus**

- 2) Using modelling dough, roll out a sausage shape.
- 3) Attach sticks to one end.

- 2) Using modelling dough, roll out a sausage shape.
- 3) Split one end into two branches.
- 4) Attach sticks to the end of the branches.

- 2) Using modelling dough, create a ball.
- 3) Attach sticks so they stick out all around the ball.



# Fart in a Bag



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## Equipment List

- Plastic, grip seal bag (e.g. Ziploc, food freezer bag)
- Bicarbonate of soda
- Vinegar
- Kitchen roll

## Instructions

- 1) Pour about half a mug of vinegar into the freezer bag and set aside.
- 2) Separately, place about 1 tablespoon of bicarbonate of soda at the centre of the square.
- 3) Carefully fold the paper towel to create a little parcel of powder.
- 4) Take your bag and kitchen roll parcel outside.
- 5) Place the kitchen roll with bicarbonate of soda into the bag of vinegar and seal the bag tightly.
- 6) Step back and watch as gas builds up and the bag inflates.
- 7) Eventually the gas escape by popping the bag open – this is like the release of a fart or burp!

