HOW DO LUNGS WORK? MAKE A MODEL LUNG

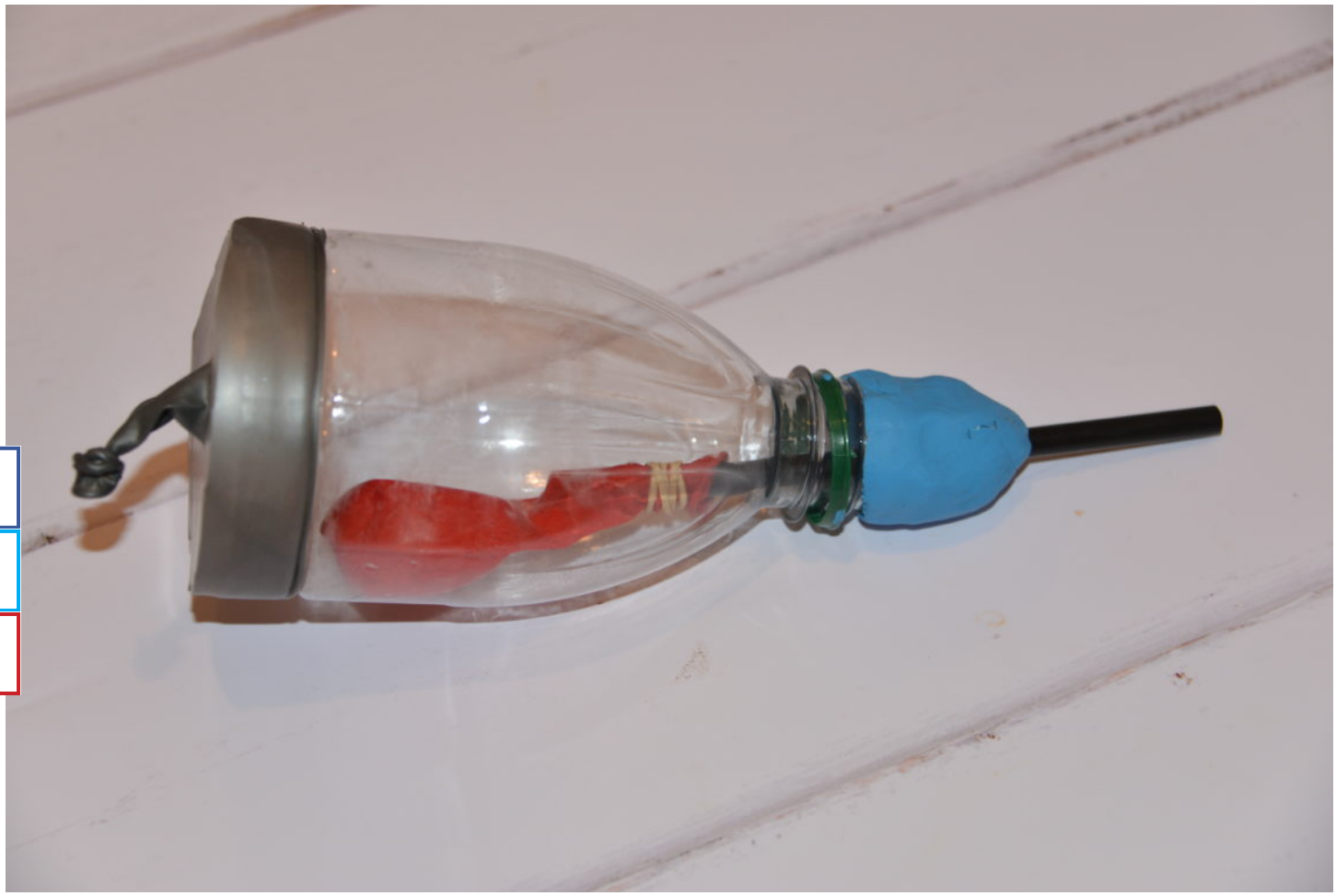
August 12, 2018 By Emma Vanstone 70 Comments

The **lungs** are an essential organ to all mammals. Today we're going to find our **how lungs work** by making a **lung model**.

The lungs are part of our **breathing system** which has two functions:

- **ventilation** – the movement of air into and out of the lungs

Under the lungs is the **diaphragm** which is a muscular sheet separating the lungs from the abdomen. Your **diaphragm** moves up and down to increase the space in your chest like the balloon at the bottom of the model.



TO MAKE A MODEL LUNG YOU'LL NEED

- A plastic bottle
- A straw
- An elastic band
- Scissors

INSTRUCTIONS FOR MAKING A MODEL LUNG

1. Carefully cut your bottle to about half the size.

2. Tie a knot in one end of one balloon and cut off the fat end.

3. Stretch the balloon around the bottom of your plastic bottle.

4. Put a straw in the neck of the other balloon and secure tightly with the elastic band but not so much that you crush the straw. The air must flow through, so test it with a little blow through the straw to see if the balloon inflates.

. Put the straw and the balloon into the neck of the bottle and secure with the play dough to make a seal around the bottle – make sure that again, you don't crush the straw.

Hold the bottle and pull the knot of the balloon at the bottom. What happens?

You should find that the balloon inside the bottle inflates, and as you let go the balloon deflates.

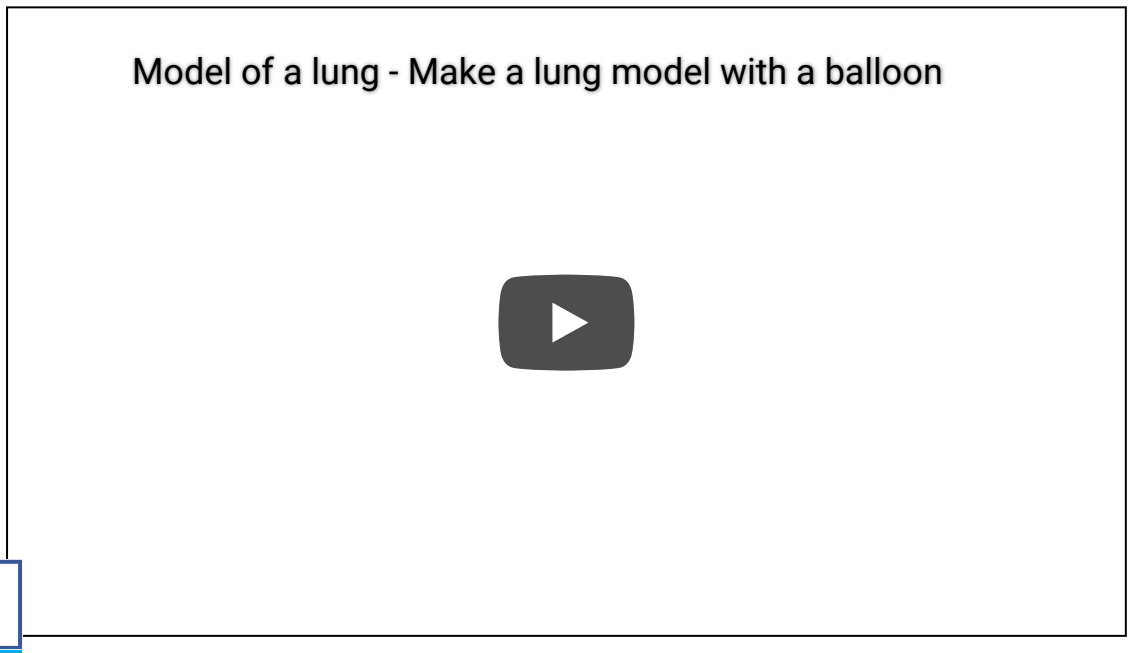
WHY DOES THIS HAPPEN?

As the knotted balloon is pulled it creates more space inside the bottle. Air then comes down the straw and fills the balloon with some air to fill the space! When you let go of the knot the space no longer exists, so the air from the balloon is expelled making it deflate.

Inside the lungs are a network of tubes which allow air to pass though. Air is warmed, moistened and filtered as it travels through the mouth and nasal passages. It then passes through the a network of tubes, eventually reaching tiny sacs called alveoli which are where gas exchange occurs.

HOW LUNGS WORK?

bottom of our chest moves down to create more space. As we breathe out the diaphragm raises again. The knotted balloon represents the diaphragm and the balloon inside the container the lung. That's how lungs work!!



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