

Centre of the Cell's 'STEM Pod' Challenge

The Lungs

What do our lungs do?

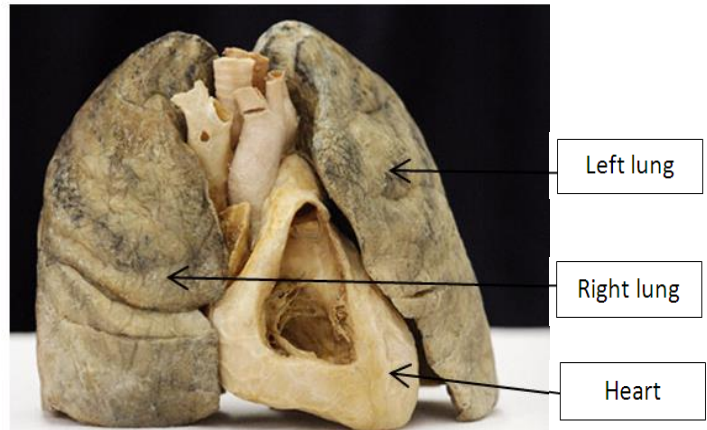
Our lungs are responsible for breathing! Our lungs are found inside of our chest, under our ribcage. The ribcage is very important in protecting the lungs.

Breathing In...

The lungs take in oxygen from the air that we breathe in. It is very important that we have oxygen in our body as it is needed to make energy in our cells.

Breathing Out...

Our lungs get rid of carbon dioxide from our body by putting it in the air we breathe out. We don't want too much carbon dioxide in our body because it can be toxic.



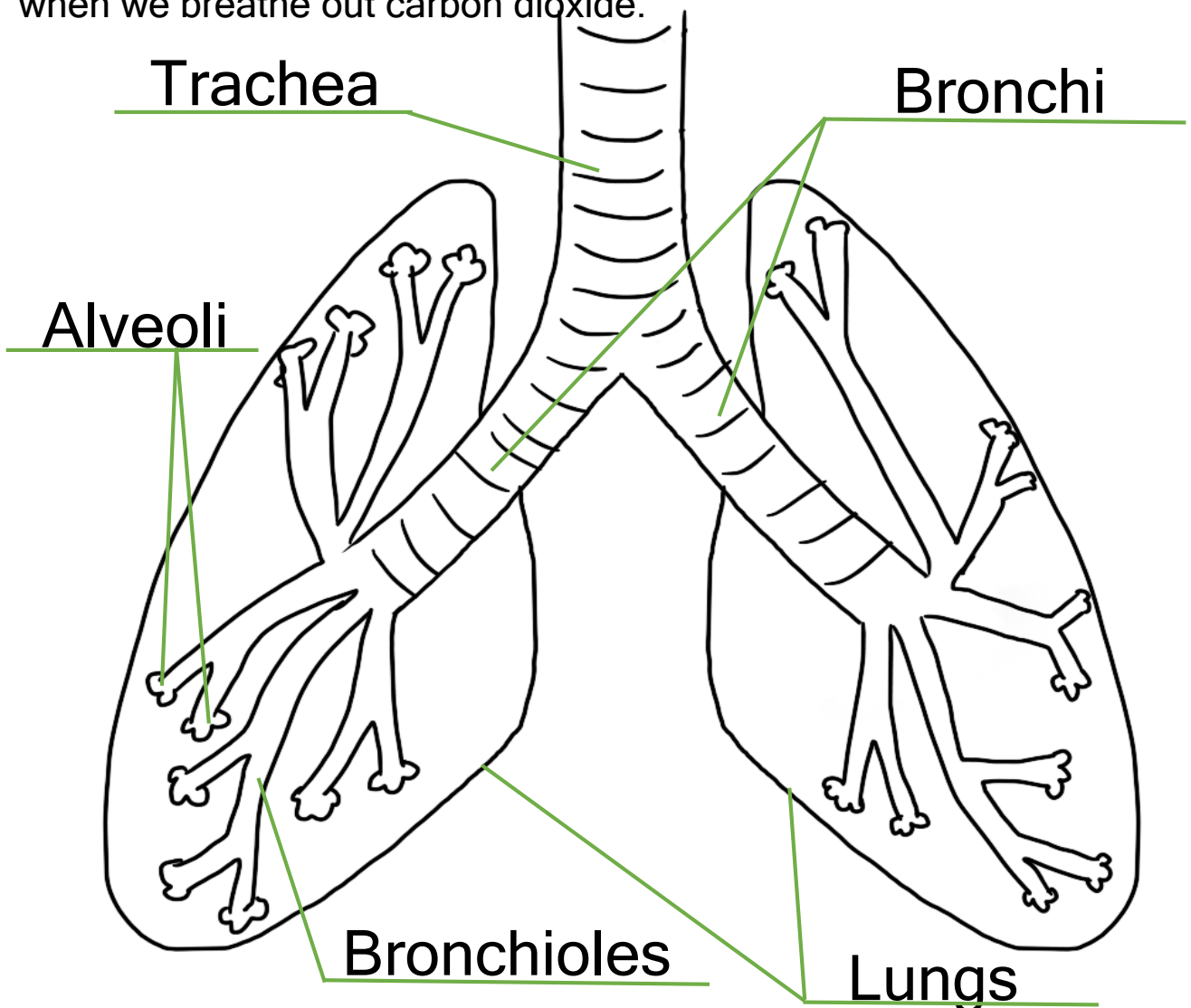
What is Asthma?

Asthma is a condition that makes it difficult to breathe. The airways in the lung constrict and fill with mucus (a sticky substance) making them smaller. This makes it harder for air to move in and out of the lungs. Lots of kids have asthma, but they can take medicine to help them breathe better.

Let us know how your
challenge goes on social media
@CentreoftheCell!

The Structure of the Lungs

After we breathe in through our nose or mouth, the air travels down the **trachea**, into the **bronchi**, then the **bronchioles** and finally into the **alveoli**. From here, oxygen moves into our bloodstream so it can travel all around our body! This whole process happens in reverse when we breathe out carbon dioxide.



You can print out this worksheet, or trace the image to colour in the lungs!

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Lung Capacity Activity

Lung capacity is the amount of air you can fit into your lungs. In this activity you will be measuring your lung capacity!

What you will need:

Balloons, measuring tape

Instructions:

1. Take a **big** breath, and blow into the balloon as **big** as you can in **one breath**.
2. Tie a knot on the balloon (make sure you don't let any air escape)
3. Measure the circumference of the balloon with the measuring tape.
4. Test this on different people in your household to see who has the biggest lung capacity. You can record your results in the table below.



Name	Circumference of Balloon (cm)

(Your results should show that bigger people, have a bigger lung capacity - this is because they have bigger lungs!)