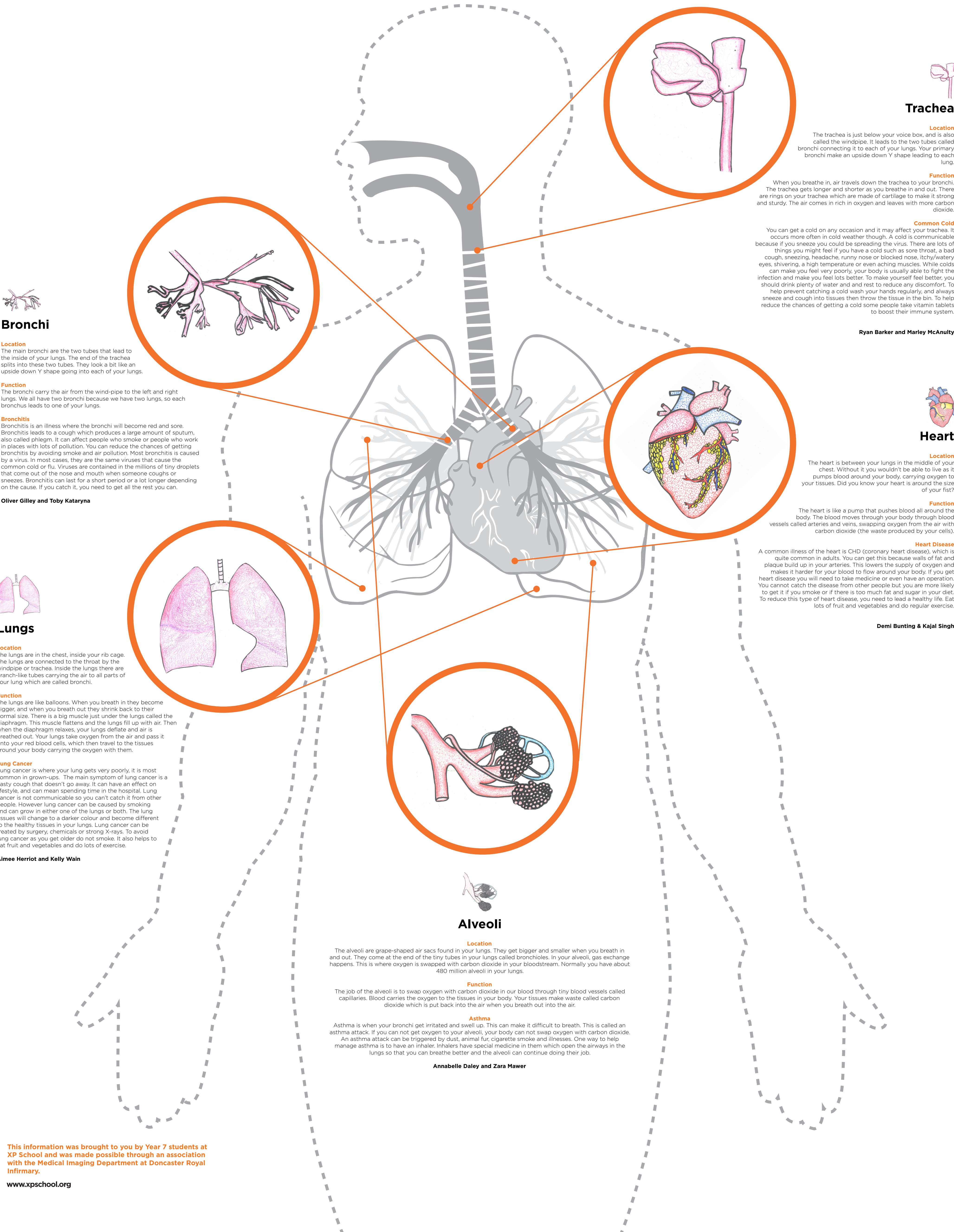


What am I made of... and why do I get sick?



XP.

Organ Systems of the Body Cardio-Respiratory System



Bronchi

Location
The main bronchi are the two tubes that lead to the inside of your lungs. The end of the trachea splits into these two tubes. They look a bit like an upside down Y shape going into each of your lungs.

Function
The bronchi carry the air from the wind-pipe to the left and right lungs. We all have two bronchi because we have two lungs, so each bronchus leads to one of your lungs.

Bronchitis
Bronchitis is an illness where the bronchi will become red and sore. Bronchitis leads to a cough which produces a large amount of sputum, also called phlegm. It can affect people who smoke or people who work in places with lots of pollution. You can reduce the chances of getting bronchitis by avoiding smoke and air pollution. Most bronchitis is caused by a virus. In most cases, they are the same viruses that cause the common cold or flu. Viruses are contained in the millions of tiny droplets that come out of the nose and mouth when someone coughs or sneezes. Bronchitis can last for a short period or a lot longer depending on the cause. If you catch it, you need to get all the rest you can.

Oliver Gilley and Toby Kataryna



Lungs

Location
The lungs are in the chest, inside your rib cage. The lungs are connected to the throat by the windpipe or trachea. Inside the lungs there are branch-like tubes carrying the air to all parts of your lung which are called bronchi.

Function
The lungs are like balloons. When you breathe in they become bigger, and when you breath out they shrink back to their normal size. There is a big muscle just under the lungs called the diaphragm. This muscle flattens and the lungs fill up with air. Then when the diaphragm relaxes, your lungs deflate and air is breathed out. Your lungs take oxygen from the air and pass it onto your red blood cells, which then travel to the tissues around your body carrying the oxygen with them.

Lung Cancer
Lung cancer is where your lung gets very poorly, it is most common in grown-ups. The main symptom of lung cancer is a nasty cough that doesn't go away. It can have an effect on lifestyle, and can mean spending time in the hospital. Lung cancer is not communicable so you can't catch it from other people. However lung cancer can be caused by smoking and can grow in either one of the lungs or both. The lung tissues will change to a darker colour and become different to the healthy tissues in your lungs. Lung cancer can be treated by surgery, chemicals or strong X-rays. To avoid lung cancer as you get older do not smoke. It also helps to eat fruit and vegetables and do lots of exercise.

Aimee Herriot and Kelly Wain



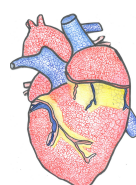
Trachea

Location
The trachea is just below your voice box, and is also called the windpipe. It leads to the two tubes called bronchi connecting it to each of your lungs. Your primary bronchi make an upside down Y shape leading to each lung.

Function
When you breathe in, air travels down the trachea to your bronchi. The trachea gets longer and shorter as you breathe in and out. There are rings on your trachea which are made of cartilage to make it strong and sturdy. The air comes in rich in oxygen and leaves with more carbon dioxide.

Common Cold
You can get a cold on any occasion and it may affect your trachea. It occurs more often in cold weather though. A cold is communicable because if you sneeze you could be spreading the virus. There are lots of things you might feel if you have a cold such as sore throat, a bad cough, sneezing, headache, runny nose or blocked nose, itchy/watery eyes, shivering, a high temperature or even aching muscles. While colds can make you feel very poorly, your body is usually able to fight the infection and make you feel lots better. To make yourself feel better, you should drink plenty of water and and rest to reduce any discomfort. To help prevent catching a cold wash your hands regularly, and always sneeze and cough into tissues then throw the tissue in the bin. To help reduce the chances of getting a cold some people take vitamin tablets to boost their immune system.

Ryan Barker and Marley McAnulty



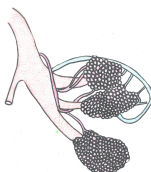
Heart

Location
The heart is between your lungs in the middle of your chest. Without it you wouldn't be able to live as it pumps blood around your body, carrying oxygen to your tissues. Did you know your heart is around the size of your fist?

Function
The heart is like a pump that pushes blood all around the body. The blood moves through your body through blood vessels called arteries and veins, swapping oxygen from the air with carbon dioxide (the waste produced by your cells).

Heart Disease
A common illness of the heart is CHD (coronary heart disease), which is common in adults. You can get this because walls of fat and plaque build up in your arteries. This lowers the supply of oxygen and makes it harder for your blood to flow around your body. If you get heart disease you will need to take medicine or even have an operation. You cannot catch the disease from other people but you are more likely to get it if you smoke or if there is too much fat and sugar in your diet. To reduce this type of heart disease, you need to lead a healthy life. Eat lots of fruit and vegetables and do regular exercise.

Demi Bunting & Kajal Singh



Alveoli

Location
The alveoli are grape-shaped air sacs found in your lungs. They get bigger and smaller when you breath in and out. They come at the end of the tiny tubes in your lungs called bronchioles. In your alveoli, gas exchange happens. This is where oxygen is swapped with carbon dioxide in your bloodstream. Normally you have about 480 million alveoli in your lungs.

Function
The job of the alveoli is to swap oxygen with carbon dioxide in our blood through tiny blood vessels called capillaries. Blood carries the oxygen to the tissues in your body. Your tissues make waste called carbon dioxide which is put back into the air when you breath out into the air.

Asthma
Asthma is when your bronchi get irritated and swell up. This can make it difficult to breath. This is called an asthma attack. If you can not get oxygen to your alveoli, your body can not swap oxygen with carbon dioxide. An asthma attack can be triggered by dust, animal fur, cigarette smoke and illnesses. One way to help manage asthma is to have an inhaler. Inhalers have special medicine in them which open the airways in the lungs so that you can breathe better and the alveoli can continue doing their job.

Annabelle Daley and Zara Mawer

This information was brought to you by Year 7 students at XP School and was made possible through an association with the Medical Imaging Department at Doncaster Royal Infirmary.

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