

Expected

KS2

Explanations

The Causes of World War Two

Who started WWII?

The second World War, starting in 1939, had one of the biggest negative impacts on Europe, destroying many cities. Adolf Hitler, who most people agree was the main cause of WWII, was leader of Germany from 1933 – 1945. Most see him as a cruel and racist man because he hated Jewish people and wanted to build a race of aryan. He killed approximately 6 million Jewish people in places called the concentration camps which were prisons for people who were mostly Jewish. There they were often killed using gas chambers. Hitler wanted to take over the whole of Europe.

Fairness

At the end of WWI, Germany had to sign the Treaty Of Versailles which meant that Germany had to pay 6 million DM, which lead them to being a very poor country. As well as this, Germany could have neither a large army, aircraft, ships, submarines nor soldiers. Hitler thought that it was not fair so he wanted to break the treaty.

The German people were happy for Hitler to break the Treaty as they were suffering from poverty and unemployment. Hitler's strong views enabled him to rise to power in a country that wanted change.

If the treaty of Versailles was fairer, maybe the war would never have begun.

Declaring the war

When Hitler had first become leader of Germany, he built a gigantic army of 2 million soldiers, a large German air force, ships, tanks and many other weapons. When the new leader was ready, he had invaded Poland, trying to make a big push into Europe. When that happened, Britain declared war on Germany as they had sworn that they would help protect Poland with the help of France if they were attacked by Germany. A few days after the invasion, Britain said that if Germany wouldn't back off they will declare war. On the 3rd of September, Germany still had not retreated so Britain and France declared war.

Fossils are the cast of remains of animals, plants or insects. They can be formed in different ways, for instance, insects getting trapped in tree sap, which eventually hardens into amber; an animal becomes trapped in the ice and is frozen, or the mould and cast of different animal bones. These processes take place over millions of years.

One of the ways for a fossil to be formed starts with the animal ^{dying} dead. The flesh of the animal is then eaten by other creatures. All that remains of the animal is its bones. Sediment (soil and sand) eventually covers the ^{skeleton} bones, which presses it down into the ground. From that point on, more layers of sediment pile over the bones. The sediment now develops into solid rock. Over the time, small streams of ground water finds its way through the rock and slowly wears the bones away. This would occur over a prolonged time. All that is left is a natural mould in the exact same shape as the animal. The ground water slowly carries small particles of rock, which fills the mould over thousands of years.

When tectonic plates collide, the fossil would rise to the ground; this is not the only way that a fossil would rise. This could happen. It could rise through an earthquake or the way that mountains rise naturally. Finally, the ~~erosion~~ (wind and rain) would slowly ^{erode} wash the top layers of rock away, leaving the fossil visible. Paleontologists dig and dig for a very prolonged time to conclude in discovering parts of a fossil, or, if they are lucky, a whole fossil.

The circulatory system has a huge role to play in the human body. It is a process in which blood carries oxygen and travels around the entire body. The circulatory system is made up of the following components: the heart, blood, the lungs, veins and arteries.

First of all, the process starts with the de-oxygenated blood which is in the right chamber of the heart. The blood is oxygen-deprived, so the heart pumps the blood to the lungs. Within seconds, the blood collects oxygen –storing it in the haemoglobin of the red blood cell, and then it goes to the left chamber from which it is sent around the body to deliver oxygen. When all the oxygen from the blood has been used up, the de-oxygenated blood travels back to the heart and the process starts again.

The circulatory system is crucial to keep humans alive, because it supplies to four of the major organs: the brain, the kidneys, the liver and the intestines. Without the brain, you will not be able to think; without the kidneys, your body would not be able to clean blood; without the liver you would not be able to urinate and without the intestines you would not be able to break your food down.

How can the Fomo Port change your life?

If you are lucky enough to get your hands on this illegal piece of science technology, known as the Fomo Port, you are probably wondering how to use such a dangerous device without causing a worldwide powercut. This simple guide will give you all the information on how to use this contraption so you won't be stuck in hospital because you accidentally electrocuted yourself. (again).

How to use this high-quality piece of technology.

To activate your Fomo port, connect the device to your phone by inserting it into your charging port. Once the screen on the machine lights up, click the switch labelled: 'on/off' and a green light should appear - letting you know that the light will be stolen shortly. The device then connects to your WIFI and personal documents before hacking into the main source of light. The Fomo Port sends powerful viruses to the main circuit board, which enables power^{to} reach the light with ease and traps the light within your appliance.

How to maintain and care for your ^{Fomo} ~~Foto~~ port.

When getting to know your 'new technology, you could consider reading the instruction manual. You might be worried about

damaging it or using it in the wrong way. If you inadvertently press the emergency off button, the screen will flash red giving you five seconds to unplug the gadget from your mobile. You will then need to discard the device before it self-destructs, leaving no trace of its activities. Because damaging property is something everyone worries about, the Fomo Port can be easily fixed; all you need is a screwdriver and it is more than likely that you will find the broken part at a local shop or online. Additionally, because you can never predict the British weather, you can buy a waterproof spray to keep water out of your equipment.

Now that you have some form of understanding of your new contraption, you should be able to look after it properly. Being the proud owner of a device like this is a big responsibility. This guide should have answered all of your questions and taken some of the weight off of your back. If you have any further questions, use a popular online browser to answer them.

My job as a red blood cell

Do you want to know how red blood cells ^{travel} through out your body? Hello, I'm Barbara and I'm a red blood cell and today I will be showing you ^{what my} ~~my~~ job is inside your body

To begin with, I hop on the tube and make my ~~to get more oxygen from the lungs~~ first stop at the vena cava $\wedge$ - Or as my friends say, the main root into the heart. Once we get in ^{there}, we can't turn back due to the big ^{valve} chambers that send us down to the right atrium.

Next, I go down into the tricuspid valve - Which are ~~like~~ like big doors that are 1 way - then down to the right ventricle with everyone. ^{else} After we go to pulmonary artery which takes us to the lungs where I pick up my package (the O_2).

After that, I take my oxygen back into the heart
through a different tube line (the Pulmonary Veins)
and then me and my ^{friends} go to the left atrium and
we are still not done! Then, the ^{Mitral valve,} left Ventricle
and back through the heart. ^{There's all of} ~~and~~ out through the
aorta. We deliver the oxygen through out the
^{along the different tube lines} body (thanks plasma) and then start all over
again back at the Vena cava.

How does the heart work?

Have you ever wondered where your heart is in your body and how it works? Located slightly to the left of your chest is your heart, which is a very important organ in your body; you would die without it. The heart, which is like a hard working pump in your chest, beats continuously in your body (even when you sleep). Whilst keeping you alive, your heart pumps blood around your body in a special system called 'The Circulatory System'. The veins in your body carry oxygen (O_2), which you breathe in daily. Did you know that the human heart is roughly the size of a large fist and weighs between 9 and 12 ounces (250 and 350 grams)? Your heart beats about 100,000 times per day, about three billion beats in a life time. At night, a child's heart beats around 90 times and as for adults the heart beats around 70 times.

To begin with, blood travels through to the two main veins called the Superior vena cava and the inferior vena cava. These veins lead blood from different parts of the body straight back to the heart. After this, when the blood enters the heart, it begins to lead through to the right atrium.

Once the right atrium contracts, blood is pushed into the next chamber called the right ventricle. This movement is important due to the fact that it allows the blood to move from one side of the heart to another. After the right ventricle contracts, blood is pushed out of the heart through a large blood vessel, the pulmonary artery.

Blood travels to the lungs after leaving the heart and picks up fresh oxygen and releases carbon dioxide. The oxygen-rich blood returns back to the heart, through the pulmonary vein. It then begins to enter the left atrium.

Oxygen-rich blood gets pushed into the left ventricle when the left atrium contracts. The left ventricle is the most important and strongest chamber of the heart and is responsible for pumping blood to the whole body. When contracting, it pushes the blood out the heart and through another blood vessel called the aorta.

Blood is now on its way to transport oxygen and nutrients to every cell in your body. It branches into small vessels, reaching out every part of the body. Blood delivers oxygen but also picks up all of the waste such as carbon dioxide.

Once the blood has transported oxygen and nutrients to your body's cells, it returns all the way back to the heart straight through the veins once more. This cycle then starts again, due to the blood re-entering the heart and moving throughout its chambers and being sent back out to the body again.

To summarise, your heart allows blood to move through its chambers and pumps blood around your entire body. This process makes sure all of the cells, which make up of your blood, get the right amount of oxygen and nutrients so your body functions correctly. To ensure this, you have to make sure you and your body are healthy and get enough exercise which is needed to make your heart stronger. Fascinating, don't you think?



What Happens When a Volcano Erupts?

Volcanoes are powerful natural features that can cause massive changes to the landscape. They may look peaceful from the outside, but inside, they are full of heat and pressure. This report explains how volcanic eruptions happen and what you might see if one erupts.

What Is a volcano?

A volcano is an opening in the Earth's crust where magma (hot, melted rock) can escape to the surface. Most volcanoes are formed at the edges of tectonic plates, where the plates are either moving apart or pushing together. Over time, magma builds up in a chamber deep underground, when the pressure gets too high, the volcano erupts.

Before the eruption

Before a volcano erupts, there are often warning signs. These can include small earthquakes, changes in gas levels, or bulging on the sides of the volcano. Scientists called volcanologists study these and try and predict when an eruption might happen. However, volcanoes don't always behave the same way, so they can be difficult to predict.

During the eruption

When a eruption occurs, magma shoots up through the vent and comes out of the top of the volcano. Once it reaches the surface, it is called lava. Lava can flow down the sides of the volcano, destroying everything in its path. Some eruptions also produce ash clouds, which can rise high into the sky and spread for miles. Ash can block out sunlight and cause breathing problems for people and animals. As well as lava and ash, some volcanoes also explode with hot gases, rock and dust. These are called pyroclastic flows and they can travel very fast and are extremely dangerous.

After the eruption

After an eruption, the lava cools and hardens into rock. This can change the shape of the land and sometimes create new islands or mountains. The ash from the eruption can help make the soil rich and good for farming, but it can also cover buildings and roads.

Communities near volcanoes often have to rebuild their homes and clean up after the eruption. Some people choose to move away, but others stay because the land is very fertile and good for growing crops.

Conclusion

Volcanoes are beautiful and dangerous, but they have an important job in shaping our planet. From the first signs of rumbling underground to the powerful eruptions that send lava and ash into the sky, each stage is important. Studying how and why volcanoes erupt, scientists can predict future eruptions and help protect the people that live nearby.