

YEAR 4 NATURAL DISASTERS KNOWLEDGE ORGANISER

Glossary:

Continent: A continent is a large solid area of land. Earth has 7 continents: Asia, Africa, North America, South America, Antarctica, Europe, and Australia.

Continental drift: The process of plates moving around on the earth's mantle and continents moving closer and further away from each other.

Earthquakes: The shaking, rolling or sudden shock of the earth's surface. They are the Earth's natural means of releasing stress. Earthquakes can be felt over large areas although they usually last less than one minute.

Epicentre: The exact location on the earth's surface where an earthquake took place.

Fault line: A break or fracture in the ground that occurs when the Earth's tectonic plates move or shift, these are areas where earthquakes are likely to occur.

Grid References: 4 digit or 6 digit codes to help you find specific locations on a map.

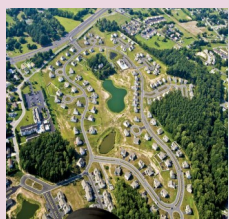
Crust: The shell around the Earth that is made up of rocks and minerals

Mantle: The part of the earth that lies between the crust and the core.

Outer core: a fluid layer made mostly of iron and nickel that lies above the inner core.

Inner core: the innermost layer of the Earth and is mostly a solid ball.

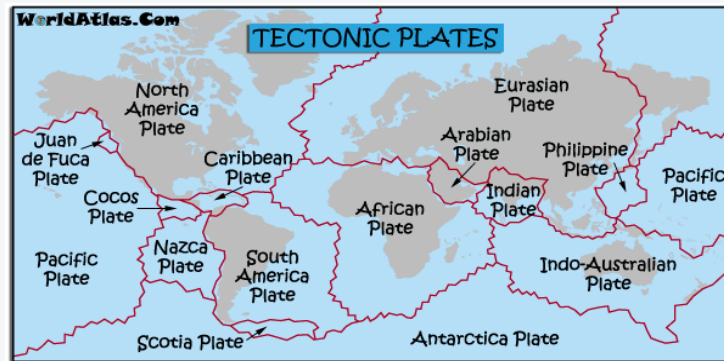
Tectonic Plate A segment of the earth's crust.



Aerial photographs are usually taken by satellite, by camera drones, or cameras in planes and helicopters. They help us to see the landscape of an area from above. These can be used to assess the damage of an earthquake or volcanic eruption.

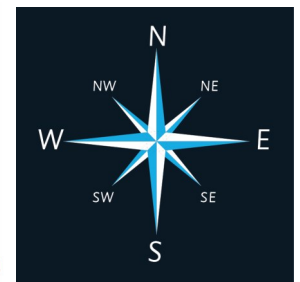
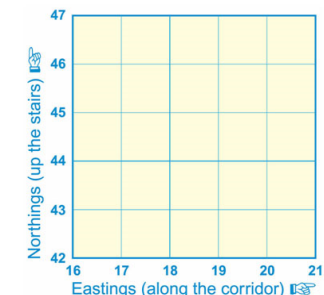
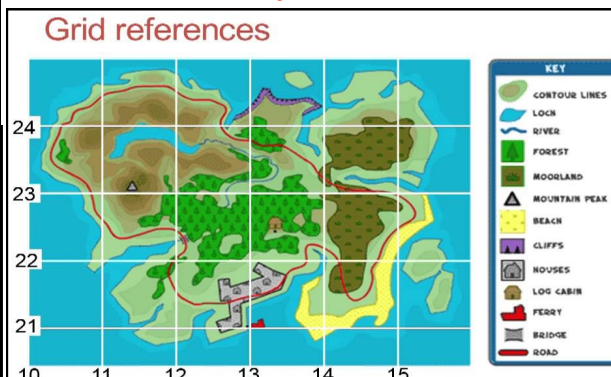


On March 11, 2011, a magnitude 9 earthquake shook north-eastern Japan, unleashing a savage tsunami. A tsunami is a large ocean wave usually caused by an underwater earthquake or a volcanic explosion. This one was caused by an underwater earthquake which happened for approximately 6 minutes. Nearly 16,000 people lost their lives.



This picture shows all the **tectonic plates** of the world. Tectonic plates are pieces of land that connect together on the Earth's outer shell. You can think of them like a giant puzzle that cover Earth underneath the ground. These pieces bump together and move.

Using maps: We can use an 8 point compass to locate places and give directions. We can also use grid references to give a specific point or place on a map. The grid reference for the **red ferry** would be 21,13.



What significant Volcanic eruptions have happened throughout history?

1. Mount Vesuvius, Italy 79AD

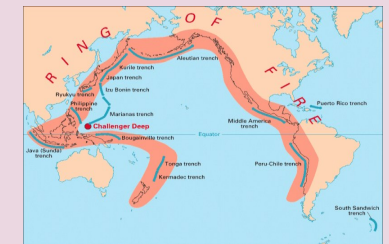
The Roman city of Pompeii was buried under meters of ash and pumice after the catastrophic eruption of Mount Vesuvius in 79AD. The remains of the city can still be seen, preserved by the layers of ash.

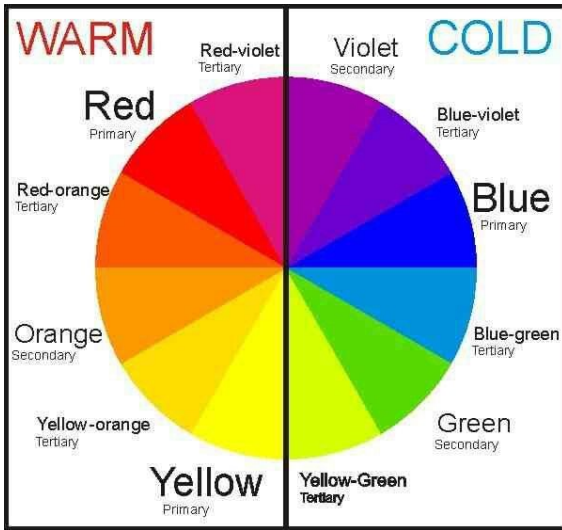
2. Mount Krakatoa, Indonesia 1883

This eruption killed over 35,000 people but this was mainly due to tsunamis that happened afterwards.

This eruption is known as the loudest sound in history the explosions could be heard 3,000 miles away! Clouds of ash lowered the world's temperature for 3 years and caused colourful sunsets around the world.

The picture below shows the ring of fire, this is a major area in the Pacific where many earthquakes occur and volcanoes erupt.



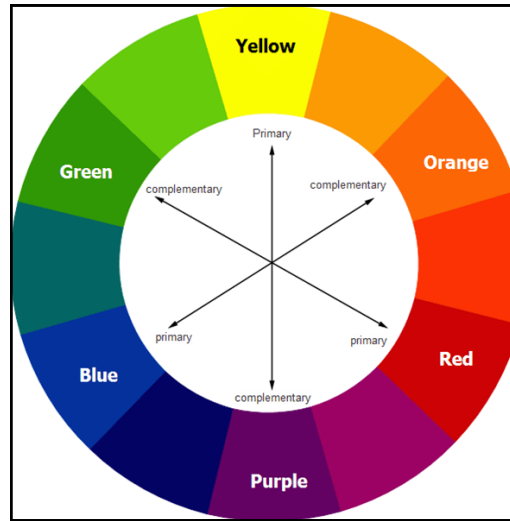


What are cool colours? Cool colours are all of the colours and tones on one side of the colour wheel. These colours are described as 'cool' because they evoke the colours of water, sky, ice and snow.

Why use cool colours? Cool colours are used in art because they evoke a feeling of calm and a soothing quality. Cool colours are perceived as further away from the viewer and are used by artists to show distance. Because they appear to move back, they can also make things seem bigger. Cool colours can be difficult to use, because while some tones are peaceful and comforting, others can be cold, impersonal and clinical.

What are warm colours? Warm colours are all of the colours and tones on one side of the colour wheel. These colours are described as 'warm' because they evoke the colours of fire and the sun.

Why use warm colours? Warm colours are used in art pieces to give a sense of warmth, happiness and energy. Warm colours can seem closer to the viewer and some artists and designers use them for this reason. While warm colours are a popular choice, they can sometimes be difficult to use and can be overpowering when used together.



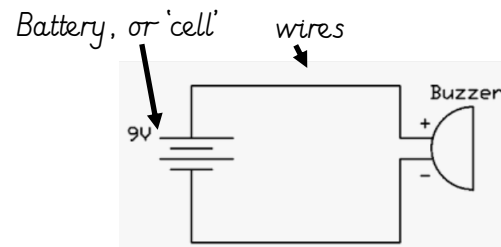
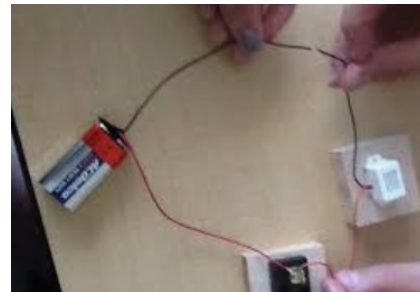
What are complementary colours? In art, complementary colours are the colours that are directly opposite each other on the colour wheel. For example, purple and yellow.

Why use complementary colours? When complementary colours are used together they are vibrant and make images 'pop' and stand out. Complementary colours are difficult to use effectively and should not be used in large images, however, when used well they make a statement in their artwork.

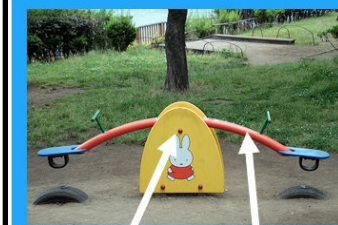
Complementary colours are sometimes called contrasting colours. Don't be confused, they mean the same thing!

Using electricity

A simple circuit



Making things move!



pivot stiff bar

Lever - The simplest type of mechanism is called a lever. A lever is a stiff bar which moves around a pivot. The pivot can be loose or fixed. Levers are used in many products.

Linkage - a mechanism made by connecting together levers around a pivot to produce the type of movement required.

