Holy Trinity Primary School	Topic: Alchemy Island	Main subject: Science	Year 5 Summer 2

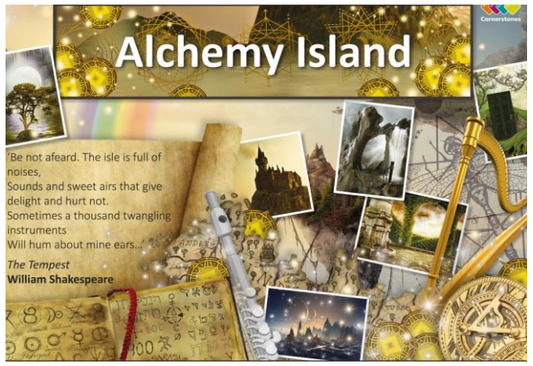
Key Vocabulary

conductor	A substance that allows electricity or heat to flow through it.
durable	Lasting a long time, without wearing out or becoming damaged.
fantasy	Something imagined that is very different from real life.
malleable	A material that is easily changed into a new shape.
mythical	Imaginary or not real, especially in stories.
potion	A liquid or substance that is believed to cure illness or have a magical effect.
precious	Rare, important or valuable.
property	The way a material behaves, looks and is structured.
sieve	To remove large solids from a liquid.
thermal	Relating to heat.
x-axis	The horizontal axis on a map or graph
y-axis	The vertical axis on a map or graph.

Irreversible and reversible reaction equations

Water + Cold ⟷ Ice

Cake mix + Heat ⟶ Cake



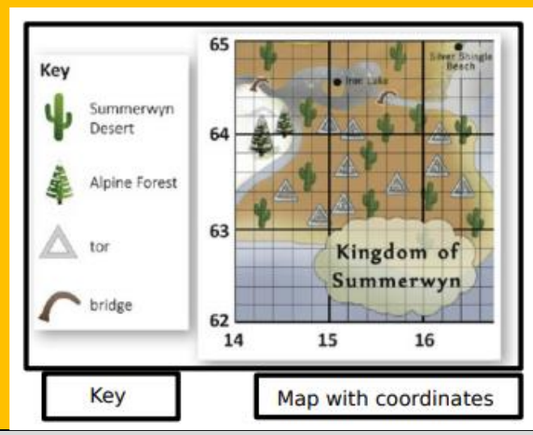
Knowledge

What is alchemy?

An ancient study of how to turn basic metals into gold. Alchemists used metals, salts, acids and many other chemicals in their attempts to make gold. They also tried to create potions that would cure all diseases and allow people to live forever. This was all at a time before people understood science as well as they do today.

Maps and Coordinates

Maps have been used for thousands of years to help people find their way around unfamiliar areas. Coordinates are used to pinpoint a specific location on a map and are usually written in brackets. The coordinates (156644) show the position of the bridge on the map below. The first three numbers refer to the position along the x-axis of the map, and the second gives the location along the y-axis. Symbols on the map show particular features of the area. Maps have a key that lists the symbols and what each of them represents.

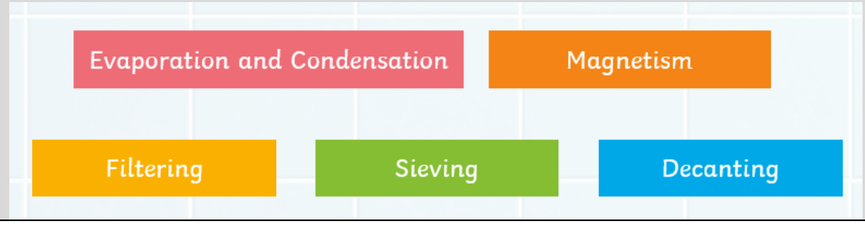


Gold

Gold is a very precious metal that has been valued since ancient times. Gold is a shiny, yellow colour, it doesn't tarnish, it is easily shaped and it conducts electricity, so it is used to make decorative objects, jewellery, coins and electrical components and mobile phones. Gold is found around the world and is usually mined from the Earth's crust. However, tiny flakes can also be found in rivers and streams and removed using a sieve called a pan.

Processes to separate materials

There are several different ways of separating mixtures. The best process to use depends on the type of mixture you are separating.

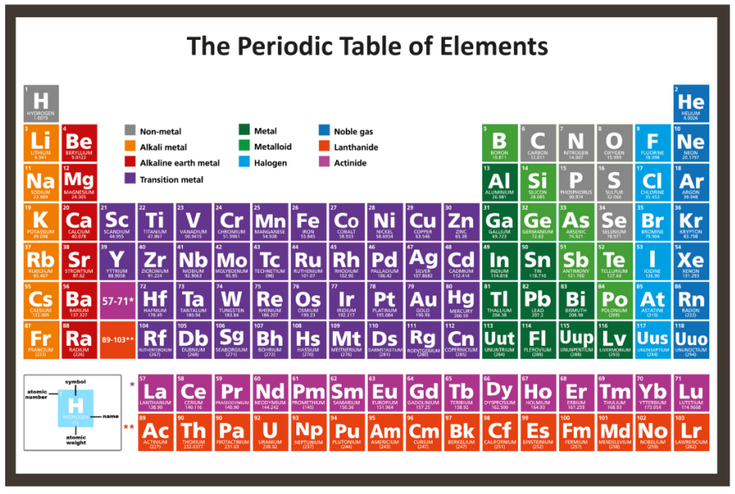


What I should already know

- Solids, liquids, gases
- Magnetic materials
- Some materials and their properties
- Human and Physical features

What I will know by the end of this unit

- Contours on a map
- How to separate materials by sieving, filtering and decanting
- 6 figure grid references
- Reversible and irreversible changes
- Chemical reactions
- How a periodic table works



Contours on a map to show hills and slopes