

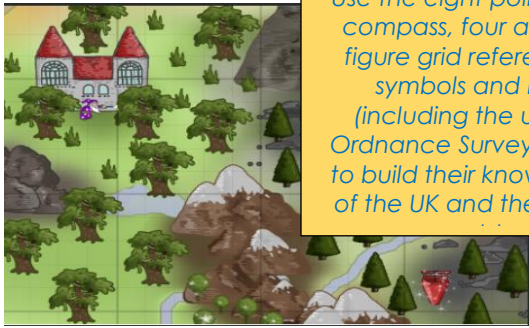
Alchemy Island

We're going on a magical journey to find the gold hidden somewhere on Alchemy Island. This half term, a mysterious visitor will arrive to present us with artefacts from the island. Reading stories set in fantasy worlds will inspire our story openings. We'll manipulate digital photographs, adding fantastical special effects. Our geography skills will improve as we look closely at maps of Alchemy Island, plotting routes and using coordinates. We'll examine samples from the island, explore the properties of materials and experiment with changes of state. If we're going to find gold, we'd better find out all about it! In English we'll write travel guides, soliloquies and poems inspired by the island's magical powers and dramatic landscape. The coding program Scratch will help us to plot and correct errors in our route, and we'll use technology to create beautiful digital images. We'll compose raps and use sound effects and mood music to reflect the atmosphere on Alchemy Island.

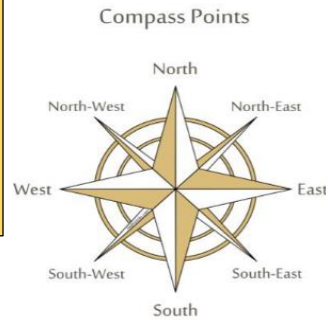
What is Alchemy?

Alchemy is an ancient study of how to turn basic metals into gold. Alchemists uses 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 in a time before people understood science as well as they do today.

Key facts	Key Vocabulary	Definition
Gold is the only metal that is yellow or 'golden'. Other metals may develop a yellowish colour, but only after they have oxidised or reacted with other chemicals.	Alchemist	A person who practices alchemy
Gold is very stretchy! 28 g of gold can be stretched into a gold thread that is five miles long.	Alchemy	A medieval chemical science with goals such as changing less valuable metals into gold and discovering how to live forever
Pure gold is so soft that you can mould it with your hands.	Citadel	A well protected castle or fortress that is typically on high ground above a city
Gold metal flakes may be consumed in food or drink.	Contours	Lines on a map that show the changing height of the land
No one is completely sure about the origins of gold. Some astronomers think that gold might come from rare neutron-rich explosions, such as the collision of neutron stars. If you own anything gold, it's possible that you have a souvenir from one of the most powerful explosions in the universe!	Co-ordinates	Groups of numbers or letters that show the location of a point on a map or a graph
Gold has many uses. As well as for money and jewellery, it is used in electronics, dentistry, medicine and to colour glass.	Human features	Items on a landscape that have been built by people such as buildings and roads
If all the gold extracted from the Earth so far was melted, it would make a cube measuring approximately 25 m ³ .	Landscape	All the things that can be seen on an area of land
Gold is one of the densest, and therefore heaviest, metals in the world.	Physical features	Items on a landscape that have occurred naturally such as mountains and waterfalls
The biggest gold nugget ever found weighed approximately 90 kg and was unearthed in Australia.	Terrain	The shape of a piece of land with regards to its physical features
Stargates, wormholes, portals and shortcuts through space and time have been the subject of theoretical physics for decades. Scientists are still trying to find out if they really exist in our universe.	Tors	High, rocky hills
Gold is a popular choice of material for medals, statues and trophies. Academy Award, Olympic and Nobel Prize winners all receive golden rewards in recognition of their achievement.	X-axis	The horizontal axis on a map or graph
In Greek mythology, King Midas had the power to turn everything he touched to gold. This became known as the 'golden touch', or the 'Midas touch'. According to legend, Midas died of starvation.	Y-axis	The vertical axis on a map or graph



Use the eight points of a compass, four and six-figure grid references, symbols and key (including the use of Ordnance Survey maps) to build their knowledge of the UK and the wider



Maps & Co-ordinates

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 (156,644) 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.

Describe and understand key aspects of: physical geography, including: climate zones, biomes and vegetation belts, rivers, mountains, volcanoes and earthquakes, and the water cycle.

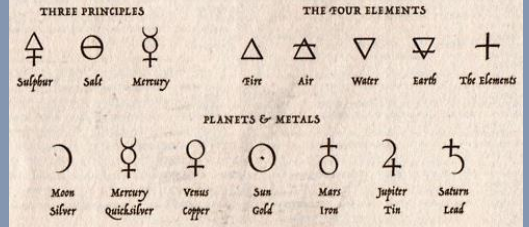
What will you choose to do?

- Make a list of foods that change state when heated or cooled, such as eggs, water, butter and chocolate. Plan and make an 'alchemist's banquet' for your family, and include foods from your list. You could add a bit of sparkle by sprinkling edible glitter or miniature silver and gold balls on top!
- Describe the scientific changes that take place in each of the dishes at your alchemist's banquet.
- Find out if your family owns anything containing gold or another precious metal or gemstone. What can you find out about where it came from?
- Find out what work is carried out by an Assay Office. You may have a local office that you can visit.
- Visit your local museum or library and use historical maps to find out where local wells used to be.
- Find out the atomic numbers and symbols for metals such as lead, copper, silver, zinc, iron and platinum.
- Use a magnet to test the magnetic properties of metals around your home and record your discoveries in a data table.
- Design a costume and travel kit for an alchemist. What useful things might an alchemist pack in a suitcase?

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 in computers 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 used moving using a sieve called a pan.

ALCHEMICAL SYMBOLS



Compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets.

Fantasy

Fantasy is a type of story that involves magical people or beings who live in strange or unusual places. It often centres on mythical or supernatural beings, such as talking animals or witches and wizards.



The Tempest

In the fantasy play the Tempest by William Shakespeare, survivors of a shipwreck land on an island, where the magician Prospero, his daughter Miranda and his servants live. Some of the characters plot against Prospero, some plot against each other and some fall in love. Prospero uses his magic to control the characters but at the end of the play, he gives permission for his daughter to get married, forgives his enemies and loses his magical powers. Prospero delivers a soliloquy to finish the play.

Prospero's Soliloquy

A soliloquy is a speech where a character talks out loud to oneself so the audience knows what they are thinking. This quote from Prospero's soliloquy explains that he has lost his powers and is now an ordinary man.

*Now my charms are all o'erthrown,
And what strength I have is my own
But release me from my bonds, with the help of your good hands.*