

## CLASS NOTICES

### Reading

Children need to read for at least ten minutes every day in order to help them improve their fluency of reading. The children will be responsible for changing their reading books when they complete the book they have read. *Please can parents sign the reading record to say you have heard your child read at least once a week*

### PE

PE will take place on **Tuesdays** and **Wednesdays**.

Children need to come to school in their PE kit:

***Black shorts or jogging trousers, plain, white t-shirt, plain black/dark jumper or hoodie and black trainers or plimsolls.***

Weather permitting, we will continue to do PE outside, so please bear this in mind when choosing your PE kit for the day.

They will also need their coat for playtime and lunchtimes when they are outside.

Children must **not** wear earrings on PE days.

### PSHE

In PSHE we will be looking at Celebrating Difference. We will be respectful when sharing our ideas and listening to others, using kind words and following our class charter.

### Homework

Homework will go home on **Friday** and is due back the following **Wednesday**.

Our maths homework will focus on our times tables. We will also send home Spelling words. Each half term, children will be asked to complete a homework project.

If you have any questions about the homework, please talk to us and we will be happy to help.

Thank you for your continued support.

Mrs Cooper & Mrs Wade

## Class Curriculum Information








*Bringing out the Best*

### Year Four Potions



**Autumn Term 2  
2023**

## CLASS NOTICES

<b>English</b> 	<p>In writing, we will be looking at creating Poetry, , setting descriptions and diaries. We will be using the texts 'The Worst Witch' and 'Fire Burn, Cauldron Bubble. We will be focusing on using descriptive language and time conjunctions and adverbials.</p>
<b>Maths</b> 	<p>In Maths we will be finding the area of shapes and comparing areas. We will be looking at multiplication and division with particular emphasis on the 7, 9, 11 and 12 times tables.</p>
<b>Science</b> 	<p>In science we will be learning about states of matter. We will be comparing and grouping materials by their properties into solids, liquids and gases. We will be investigating the change of state of some materials when heated or cooled.</p>
<b>Computing</b> 	<p>In Computing we will be looking at creating media audio production, where we will be creating a podcast. We will continue to work on keeping safe using technology and the internet.</p>
<b>R.E.</b> 	<p>What does it mean to be a Hindu in Britain today? We will be learning the importance to Hindus of 'justice' as fairness or equality. We will learn about the British Hindu life and culture.</p>

## ENRICHMENT AREAS OF LEARNING

<b>Geography and History</b> 	<p>In History we will be finding out about how potions were used in the past for both everyday medicine and magical reasons. We will create a potion using a range of herbs and ingredients known for their mystical or medicinal properties and write a description of a potion and its historical usage.</p>
<b>MUSIC</b> 	<p>Year 4 will focus on playing the glockenspiel this term. The children will be learning about rhythm and pitch as well as learning the language of music.</p>
<b>DT/Art</b> 	<p>Children will explore how we can create sequenced imagery to share and tell stories. We will study an artists, an illustrator and a graphic novelist.</p>
<b>P.E.</b> 	<p>In PE this term we will be learning how to play Badminton and developing our racket skills.</p>
<b>MFL</b> 	<p>Year 4 will be continuing our MFL journey with Spanish. We will be looking at the human body and Christmas. We will learn about Spanish speaking countries across the world.</p>

# Potions

## What is a potion?

Potions are liquids that are said to have healing or magical properties. Before people knew about modern medicines, healing potions, often made from herbs, were thought to cure a range of health problems. In fantasy stories and films, potions are usually made by a magician or a witch. They can do magical things such as healing, bewitching or poisoning. In Lewis Carroll's *Alice's Adventures in Wonderland*, Alice drinks a potion labelled 'Drink me' that magically makes her shrink.

## Potions in Shakespeare's plays

William Shakespeare used potions for different effects in some of his plays. In *A Midsummer Night's Dream*, the character Puck uses a love potion to create chaos:

*The juice of it on sleeping eyelids laid  
Will make man or woman madly dote  
Upon the next live creature that it sees.*

A sleeping potion is used in *Romeo and Juliet*, with tragic consequences:




*Take thou this vial, being then in bed,  
And this distilled liquor drink thou off.  
When presently through all thy veins shall run  
A cold and drowsy humour*

In *Macbeth*, three witches make a potion to help Macbeth see into the future. It contains all sorts of strange things:

*Fillet of a fenny snake,  
In the cauldron boil and bake,  
Eye of newt and toe of frog,  
Wool of bat and tongue of dog,  
Adder's fork and blind-worm's sting,  
Lizard's leg and owl's wing*

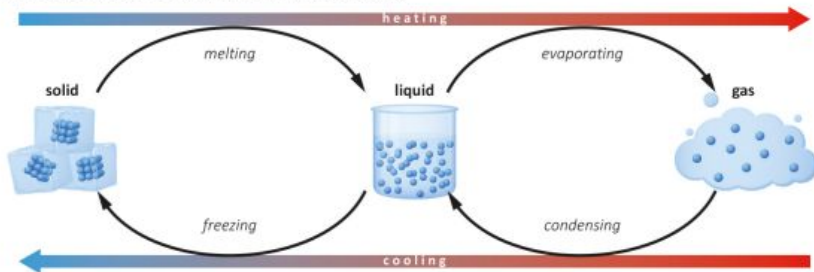
## Solids, liquids, and gases

All matter is made up of particles. The arrangement of the particles determines whether the matter is a solid, liquid or gas and its properties.

Particle arrangement	Properties	Examples
<b>Solid</b> 	Particles are tightly packed together, which means solids hold their shape and can't be squashed.	wood, brick, rock, sand, ice, butter
<b>Liquid</b> 	Particles are slightly further apart so liquids can flow from one container to another. Liquids cannot change their volume.	water, milk, oil, honey, lemonade, blood
<b>Gas</b> 	Particles are far apart so gases can spread out to fill all the space available. A gas can be squashed to change its volume.	air, oxygen, carbon dioxide, helium, nitrogen, water vapour

## Changes of state

Matter can be changed between states by heating or cooling.



## Gases

Gases are all around us but cannot often be smelt or seen.

Gas	Uses
oxygen	found in air and used by the body to get energy from food
nitrogen	found in air
carbon dioxide	makes drinks fizzy and is released when people breathe out
helium	filling balloons
propane	fuel for barbecues
nitrous oxide	anaesthetic and painkiller
ether	vapour used as anaesthetic
ethylene	vapour used as anaesthetic

## Anaesthetics

Anaesthetics are drugs used to put people to sleep when they have an operation. Having an anaesthetic means the patient will not feel pain during surgery. Many anaesthetics are gases and patients breathe them in through a breathing mask or tube. In 1846, an American dentist, William Morton, first used a gas called ether for pain relief when pulling a tooth out. Before that, there was no pain relief during operations. The discovery of anaesthetics is thought to be one of the greatest discoveries of all time.



William Morton uses ether on a patient

## Timeline of anaesthetics

<b>4000 BC</b>	Sumerians use opium poppy as an anaesthetic.
<b>1600 BC</b>	Acupuncture is used in China for pain relief.
<b>600 BC</b>	Sushruta, an Indian doctor, uses wine with herbs to sedate his patients.
<b>AD 64</b>	Dioscorides, a Greek surgeon in the Roman army, writes about using mandrake root boiled in wine to numb soldiers' wounds.
<b>AD 160</b>	In China, Hua Tuo performs surgery with his own general anaesthetic, mafeisan, a mixture of Chinese herbs and wine.
<b>1493–1541</b>	Paracelsus, a Swiss doctor, discovers laudanum and uses it as a painkilling drug served in an alcoholic drink.
<b>1771–1786</b>	Joseph Priestly, an English chemist, discovers oxygen and nitrous oxide ('laughing gas').
<b>1798–1801</b>	Sir Humphry Davy experiments with nitrous oxide as an anaesthetic.
<b>1805</b>	Friedrich Serturner, a German pharmacist, discovers a painkilling drug called morphine.
<b>1846</b>	American dentist William Morton uses ether as an anaesthetic for a tooth extraction.
<b>1923</b>	Isabella Herb, an American doctor, uses ethylene gas as an anaesthetic.
<b>1981</b>	A British anaesthetist called Archie Brain invents a safer way of delivering anaesthetics using a laryngeal mask which keeps a patient's airway open during an anaesthetic.

## Glossary

<b>acupuncture</b>	A treatment for pain where thin needles are positioned just under the skin at special points around the body.
<b>anaesthetic</b>	A substance that makes someone go to sleep or stops them feeling pain during an operation.
<b>condensation</b>	The process of a gas cooling to become a liquid.
<b>evaporation</b>	The process of a liquid becoming a gas by heating.
<b>freezing</b>	The process of a liquid becoming a solid by cooling.
<b>laudanum</b>	A solution containing morphine that is used as a painkiller.
<b>mafeisan</b>	A powder containing drugs to make patients sleep and stop them from feeling pain. It is not known exactly what it contained.
<b>mandrake</b>	A plant with purple flowers. The root was used as an anaesthetic in ancient times.
<b>matter</b>	A physical substance that takes up space.
<b>melting</b>	The process of a solid becoming a liquid when it is heated.
<b>morphine</b>	A drug made from opium that is used to stop people from feeling pain.
<b>particle</b>	An extremely small piece of matter.
<b>potion</b>	A liquid that is not a medicine and is believed to have a magical effect on someone who drinks it.
<b>sedate</b>	To make a person feel very calm or go to sleep.
<b>vapour</b>	A gas or very small drops of liquid that result from heating a liquid.