

The children will also be learning:

- Design & Technology— to design and make a potion bottle.
- Art—sketching.
- Music—to learn to play an instrument (Ukulele).
- RE— Hinduism in Britain
- French— the vocabulary for greetings and numbers 0 -10

#### Reminders:

P.E. This will take place twice weekly. Please ensure your child comes to school in their PE kit:

**4JD & 4LF**—Monday & Wednesday

**4TK**—Wednesday & Friday.

Please note that the wearing of earrings during P.E. will not be permitted so it would be helpful if your child did not come to school wearing earrings on P.E. days. Also, long hair **must** be tied back.

Water Bottles: We ask that children bring in 1 or 2 **labelled** water bottles separate from the drink in their lunch boxes. These water bottles will be kept in the classroom for use throughout the day and should **only be filled with water!** Please provide enough water to last the day as we don't have re-fill facilities at this time.

Books: **Reading books and records** should be in school every day. However, reading should be a daily activity and we would appreciate you spending time with your child discussing their reading book and signing their reading logs.

Homework: **Mathematics homework** (MyMaths) will be set on a Monday and returned on the following Monday. **Spelling homework** will be set on a Friday and returned on the following Friday.

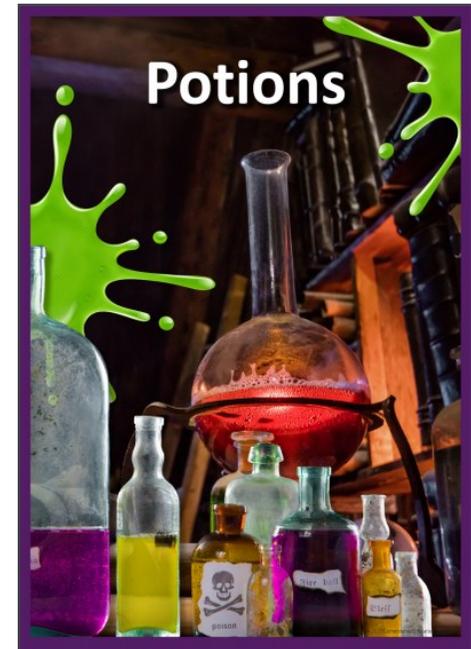
Home/School Diary: We expect the children to use this on a regular basis. Please feel free to use this to communicate with us. Please check your child's diary for the week ahead and sign this ready for us to countersign on a Monday morning.

Please ensure that **every item** that your child brings into school is labelled. This will help us identify any lost property.



Year 4

Autumn Term 1



Potion: a poison, a mixture, an aromatic brew, a vapour, a liquid or sticky goo. In this topic, we will be exploring the amazing world of potions and their properties to help us learn about the different states of matter. We will also be diving down the rabbit hole to enjoy the adventures of Alice in Wonderland; writing poems and narratives based on the story. In addition, we will design and make our very own potion bottles. Now scientists, beware. There are some powerful and deadly potions out there, dangerous and unpredictable. Feeling sleepy? That orange juice did taste a little strange...

#### Key Dates

**Thursday 15th October -**

Theme Day

(Children are invited to dress as witches/wizards or scientists.)

## What is a potion?

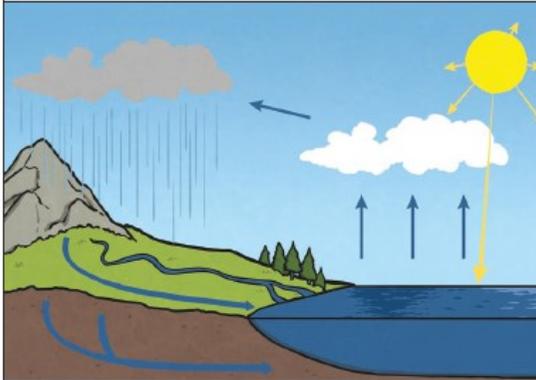
Potions are liquids that are said to have healing or magical properties. Before people knew about modern medicines, healing potions, often made from herbs, were thought to cure a range of health problems. In fantasy stories and films, potions are usually made by a magician or a witch. They can do magical 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.

## Gases

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

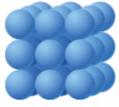
Gas	Uses
oxygen	found in air and used by the body to get energy from food
nitrogen	found in air
carbon dioxide	makes drinks fizzy and is released when people breathe out
helium	filling balloons
propane	fuel for barbecues
nitrous oxide	anaesthetic and painkiller
ether	vapour used as anaesthetic
ethylene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

**Condensation** and **evaporation** occur within the water cycle.



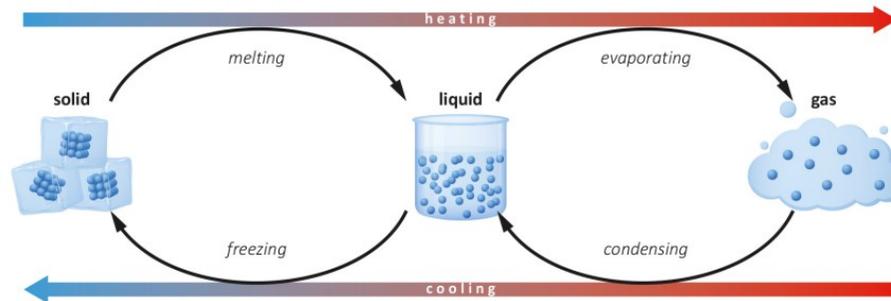
## Solids, liquids, and gases

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.



**Density** describes how heavy a liquid is in relation to the amount there is. For example, oil is 'heavier' than water.



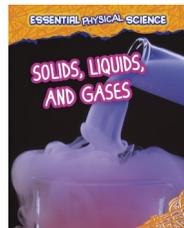
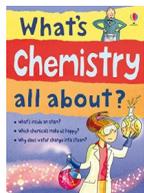
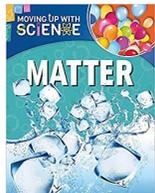
**Viscosity** describes how runny a liquid is. For example, ketchup is quite thick and less runny than water so we can say that ketchup is more viscous than water.



## Key Vocabulary

<b>states of matter</b>	Materials can be one of three states: <b>solids</b> , <b>liquids</b> or <b>gases</b> . Some materials can change from one state to another and back again.
<b>solids</b>	These are materials that keep their shape unless a force is applied to them. They can be hard, soft or even squashy. <b>Solids</b> take up the same amount of space no matter what has happened to them.
<b>liquids</b>	<b>Liquids</b> take the shape of their container. They can change shape but do not change the amount of space they take up. They can flow or be poured.
<b>gases</b>	<b>Gases</b> can spread out to completely fill the container or room they are in. They do not have any fixed shape but they do have a mass.
<b>water vapour</b>	This is water that takes the form of a <b>gas</b> . When water is boiled, it <b>evaporates</b> into a <b>water vapour</b> .
<b>melt</b>	This is when a <b>solid</b> changes to a <b>liquid</b> .
<b>freeze</b>	<b>Liquid</b> turns to a <b>solid</b> during the <b>freezing</b> process.
<b>evaporate</b>	Turn a <b>liquid</b> into a <b>gas</b> .
<b>condense</b>	Turn a <b>gas</b> into a <b>liquid</b> .
<b>precipitation</b>	<b>Liquid</b> or <b>solid</b> particles that fall from a cloud as rain, sleet, hail or snow.

## Non-Fiction Books



## Fiction Books

