



## News and reminders

PE days: **Year 5:** Wednesday     **Year 6:** Monday

Children should come into school in their correct PE kit.

Please ensure that your child is wearing the Bierton P.E. hoodie, blue Bierton P.E. t-shirt and black leggings/joggers. We would also like to remind everyone that due to health and safety, earrings need to be removed or taped for PE lessons. Unfortunately, we cannot help children to remove their earrings or put them back in.

**Coats:** It is getting colder now, so please can all children be coming to school with a coat and other items to keep them warm when outside e.g. hats, scarves and gloves.

**Library:** The library is now open to Y6 on a Friday lunchtime.

A big well done to all the children who have completed their assessments over the last few of weeks. They have shown determination and resilience and we are super proud of them.

**Reading millionaires:** Well done to Ethan L (Walnut) Noah H (Whitebeam) and Ethan O (Spruce) who are our latest reading millionaires! Akhilesh and Saharash have now reached over two million words - the first children to do this! We would love to have more children become reading millionaires by the February half-term, so please keep reading everyone and you will be in with a chance to win a chocolate bar that is out of this world! 😊

## Superstar Learners in November

Well done to these children who have received a Christian Value certificate:

	Spruce	Sycamore	Whitebeam	Walnut
12 <sup>th</sup> January	Mollie - Respect	Freya - Cooperation	Layla - Responsibility	Aryana - Responsibility
19 <sup>th</sup> January	Halle - Cooperation	Harrison - Responsibility	Scarlett - Love	Poppy - respect

Highest number of coins on Numbots	Highest number of coins on TTRS	Highest class quiz average
Halle	Stephen	Spruce 88%
Dominic	Seth	Whitebeam 83%
Effie	Sienna	Walnut 82%

## Homework

Just a reminder that homework is set on a Monday and is due by the following Monday.

The homework requirements in Year 5 and 6 are:

- 30 minutes across the week on TTRockstars (split into 20 minutes garage and 10 minutes studio)
- 30 minutes of maths arithmetic
- 30 minutes completing the SPaG task (year 5)
- A 30 minute two part Literacy task (Year 6)
- Daily reading (complete at least one quiz on Accelerated Reader each week)
- Website for Accelerated Reader: <https://global-zone61.renaissance-go.com/educatorportal/entry?t=6703196>

## Diary dates

- Friday 2<sup>nd</sup> February - open classrooms 2:45pm
- Tuesday/Wednesday 6<sup>th</sup>/7<sup>th</sup> February - parents evening.
- Friday 9<sup>th</sup> February - break the rules day
- Friday 9<sup>th</sup> February - finish at 3:15 for half term

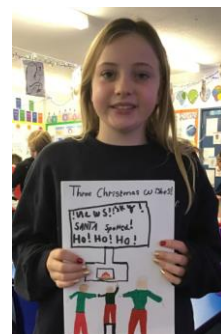
# Recent news

## Pop up books

In DT last-term, the children planned, designed and created their own pop-up books for Year 1 children. Working in pairs, they had to make different slider and lever mechanisms to create the pop-up effect.

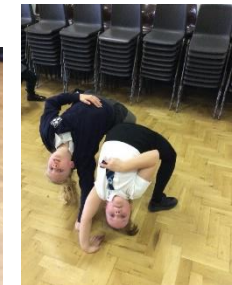
They used their imagination to write fun, interesting stories for the children and all put a lot of effort into.

This week we took a visit to the year 1 classes where we read our stories to them and showed them our books. The year 1 children loved moving the mechanisms!



## Urban strides

At the start of the term, the children took part in an Urban strides session with the talented Amy. She taught them different street dance moves and the children were able to showcase what they learnt. They all had so much fun!



## Literacy

Poetry has been our focus since we returned this term. Our poem - Malfeasance - has given us the opportunity to explore language and vocabulary in a different way. This poem has lots of negative vocabulary and we have looked at how to combine different words to create a negative image.

## Maths

We have been exploring fractions and looking at the relationship between different denominators. We have used this knowledge to add fractions with different denominators. To solve the addition problems we have had to work through multiple steps to reach the answer. Our knowledge of our times tables has helped us to solve these.

## R.E.

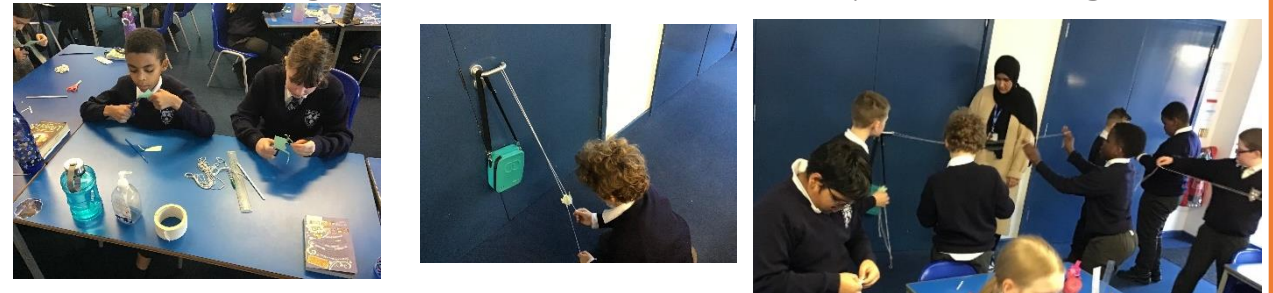
We have a new question for the Spring term - Does the community of Gurdwara help lead better lives? To start our unit we looked at the origins of Sikhism and how the message was spread.

## Science

Our last topic was forces. We found out about Isaac Newton, friction, air resistance, water resistance and pulleys. We started by looking at gravity and explored the size of craters that were made by dropping different sized objects.



We carried out an enquiry for friction that explored how friction acts between an object and a surface. We used our understanding of friction to help us to move our frog models from the bottom of a piece of string to the top.



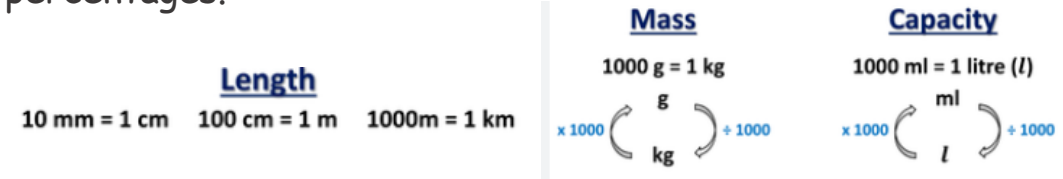
### Literacy

Poetry has been our focus since we returned this term. Our poem - The Malfeasance by Alan Bold - has given us the opportunity to explore language and vocabulary in a different way. This poem uses negative vocabulary and we have looked at how to combine different words to create a negative image. The children will create their own poems for their independent writes at the end of the unit.



### Maths

This month we have been covering measurements. The children have been learning how to convert different units of measure, such as: cm to mm, m to km, g to kg, l to ml and miles to km. The next unit they will be learning is percentages.



### Humanities

In History this term, the children have started to learn about Ancient Greece. So far, they have explored what life was like for people in Ancient Greece and what it was like. The children have become historians and archaeologists, as they have been investigating different sources of evidence to help them learn about the time period.



### RE

We have a new question for the Spring term - Does the community of Gurdwara help lead better lives? To start our unit we looked at how origins of Sikhism and how the message was spread.



### Spirituality

Our Christian Value this term is 'Love' and children have been created their own prayers based on love.



### Science

We have just finished our unit on forces. Recently, we have conducted experiments to find out which shapes travel through water with the least resistance, what can affect air resistance and finally we made our own pulleys to test which ones required the least amount of force. This term we are moving onto properties and changes of materials where we will conduct more investigations!

# Y6 Photos


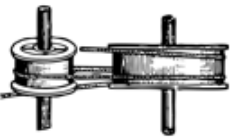



## Knowledge Organiser Unit: Forces and Magnets

- 1 • Can I recall information about the life and works of Sir Isaac Newton?
- 2 • Can I understand the forces of gravity and air resistance?
- 3 • Can I understand the effects water resistance and friction?
- 4 How and what are pulleys and levers used for?
- 5 • Can I explain how gears allow a smaller force to have greater effect?
- 6 • How can I calculate the density of an object?

### Sir Isaac Newton (1643-1726)

- Explained the three laws of motion
- Explained the theory of gravity, including gravitational pull of the Earth.
- Invented the reflecting telescope
- His physics book 'Principia' contained many theories of physics

Name	Picture	How it Works	Used For
Lever		Helps to reduce the amount of force needed to move or lift an object, by increasing the distance through which the force acts.	<ul style="list-style-type: none"> <li>• stapler</li> <li>• door handle</li> <li>• claw of hammer</li> <li>• tweezers</li> </ul>
Pulley		Helps to reverse the direction of the lifting force, therefore multiplying the force your body produces on the object.	<ul style="list-style-type: none"> <li>• elevator</li> <li>• wells</li> <li>• theatre curtains</li> <li>• bulldozer</li> </ul>
Gear		The 'teeth' on the gears turn one another, and in doing so, helps to increase the power of a turning force.	<ul style="list-style-type: none"> <li>• cars</li> <li>• bikes</li> <li>• pendulum clock</li> <li>• vacuums</li> </ul>

## Key Vocabulary

Key Word	Meaning
Sir Isaac Newton	An English physicist and mathematician, one of the most influential scientists in history.
gravity	A force that attracts something with mass towards earth, measured in Newtons per kilogram.
resistance	A force exerted on something to slow it down or stop it.
lever	A simple machine used to move an object or operate a machine.
gear	Toothed wheel that engages with another to change speed or direction of a machine.
pulley	A wheel which a cord passes through; it helps to raise heavy weights.
mass	The measure of how much matter is in an object.

### Can you resist me?

**Air resistance**, otherwise known as **drag**, is the way air opposes the direction an object is travelling in and slows it down. A good example of this is a **parachute**, the large surface area **absorbs** the air resistance, and slows down the descent of the parachutist.



**Water resistance** is the way water slows down the speed of the item travelling through it. This is why high-speed boats have a narrow front end, so that they can easily glide through it.

**Friction** occurs when two surfaces rub against each other. The rougher the surface, the more friction is caused. For example, sand and carpet have lots of friction.



Knowledge Organiser  
Unit: Properties and Changes of Materials

## 5 ways to compare a physical and chemical change.

### Key Vocabulary

Key Word	Meaning
separate	To split or divide a substance into its distinct elements
solution	A mixture of two substances, the solute and the solvent
solute	A substance that is dissolved in liquid.
solvent	A substance that dissolves a solute, such as water.
irreversible	Impossible to change back to a previous condition or state.
compound	A substance formed when two or more chemical elements are bonded together
physical change	A change in material in which no new substances are formed
chemical change	A change that results in the creation of few chemical substances


Property	Physical Change	Chemical Change
Explanation	Molecules are rearranged but the actual type of molecules stay the same.	The type and make-up of the molecules is changed and a new substance is formed.
Change	A temporary change that is easily reversed, and no new substance is formed.	A permanent change that is irreversible, with a new substance always being formed.
Energy	No energy is produced, and very little or no energy is absorbed.	Energy is produced, in the form of light or heat (for example) and energy is also absorbed.
Effects	Only has an effect on physical properties of a substance or object i.e. shape, size.	Changes both physical and chemical properties of a substance or object.
Examples	Freezing or boiling water, melting wax	Burning wood, eating food, rusting of metal.

- 1 • To know that some materials will dissolve in liquid to form a solution
- 2 • To use knowledge of solids, liquids and gases to decide how mixtures and solutions might be separated
- 3 • Explain that some changes form new materials, and that these changes are not usually reversible
- 4 • To identify when a change caused by heating or cooling is reversible or irreversible.
- 5 • To investigate the materials needed for something to burn and the new materials formed by burning
- 6 • To compare and group together everyday materials on the basis of their properties
- 7 • To give reasons for the particular uses of everyday materials in relation to their properties

### Separation Techniques


**Filtering**

- Brewing coffee
- Cleaning a swimming pool
- Vacuum Cleaning



**Evaporating**

- Body sweat
- The water cycle
- Salt / crystal extraction

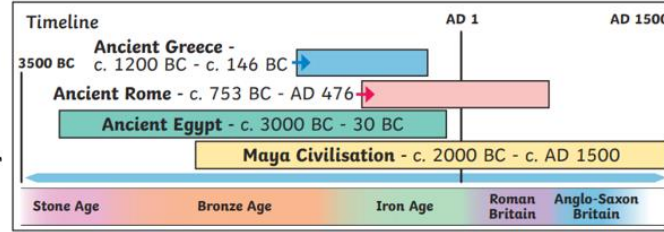


**Sieving**

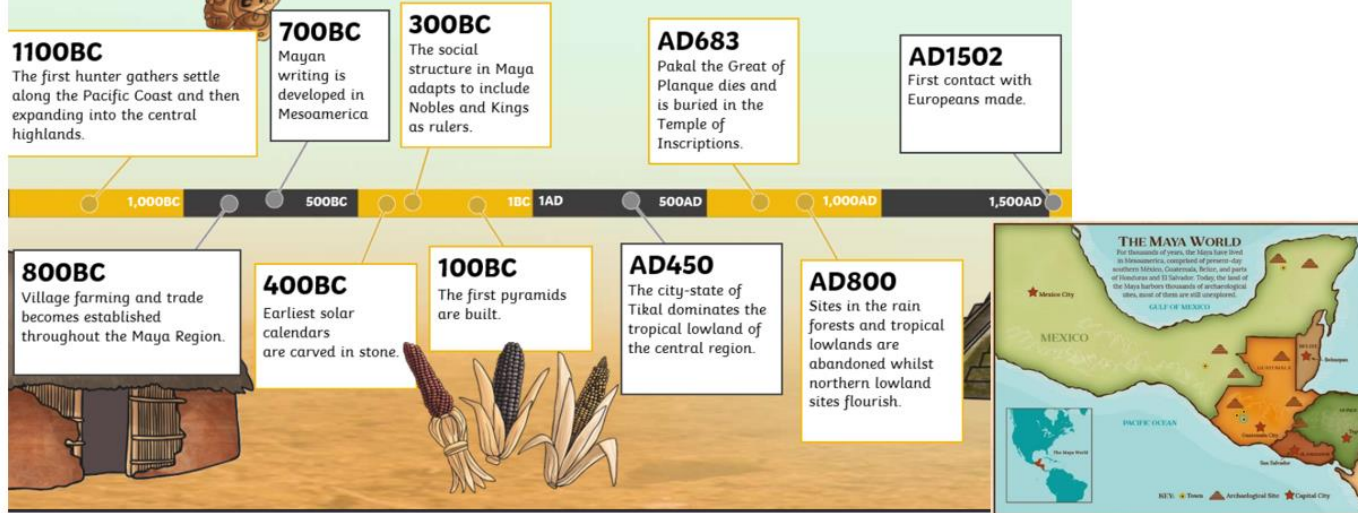
- Removing impurities during cooking
- Sieving sand during building
- Mining for minerals



In your study of the Maya, you will learn how the Mayan civilization grew so strong when the odds against it were so huge. To help you develop the use of evidence, you will work out how we can be so sure about what life was like for the Maya a thousand years ago. You will look at their religious beliefs. You will create your own plausible answer to the riddle of why the Maya civilization came to such an abrupt end.



## Ancient Maya Timeline



### Key Vocabulary

<b>civilisation</b>	A human society with well-developed rules and government, often where technology and the arts are considered important.
<b>drought</b>	A long period of time with little or no rain.
<b>jaguar</b>	A big cat, heavier than a leopard, with yellowish fur and black spots.
<b>scribes</b>	People trained to write things down, either as an official record or for someone else unable to write.
<b>codices</b>	Ancient handwritten texts. Maya <b>codices</b> could be unfolded like a concertina. One text is called a codex.
<b>maize</b>	Another word for sweetcorn or corn on the cob. It can be made into a dough and baked into tortillas.
<b>cacao beans</b>	<b>Cacao</b> trees sprout pods directly from their trunks. When they are ripe, the pods can be broken open to reveal the beans, which can then be dried, roasted and ground.

### Top takeaways

- Having studied this topic, you should be able to:
- Place the Maya on a timeline and a map.
  - Identify and understand some of the achievements of the Maya.
  - Explains some aspects of how the Maya lived.
  - Explain why the Maya civilisation lasted so long and was so successful.
  - Explain the plausible causes of the decline of the Mayan civilisation.

### Historical Skills Vocabulary

<b>primary source</b>	Information and objects that come from the time being studied.
<b>secondary source</b>	Interpretations of information and objects which are produced after the time being studied.

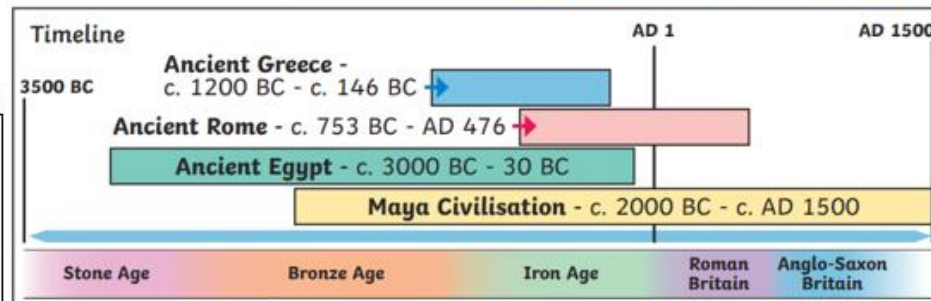


## Ancient Greece

Year 6

### Key vocabulary

Acropolis	This was a large rocky area high above Athens that contained important buildings such as the Parthenon
Agora	A busy central area, where people came together to meet and trade, like a market place
City state	A city that became powerful and formed its own stat with its own government
Democracy	Rule by the people. The people have a say by placing a vote
Helot	A spartan worker owned by the state
Hoplite	A heavily armed Athenian foot soldier
Parthenon	A temple in Athens, built for the goddess Athena in the 5 <sup>th</sup> century
Polis	A Greek city state



### Top takeaways

By the end of this unit I should be able to:

- Explain the features of Greek society
- Explain how ancient Athens was ruled
- Give 3 important examples of Ancient Greek achievements
- Make deductions about what mattered to the Ancient Greeks
- Explain how the Ancient Greeks have influenced our lives today



### Historical Skills Vocabulary

primary source	Information and objects that come from the time being studied.
secondary source	Interpretations of information and objects which are produced after the time being studied.

What should be able to do:

- Know what Sikhs believe and some features for Sikh worship.
- Be able to find out how Sikhs pray and worship.
- Will know the ways that children are welcomed into the Sikh community.
- Explore the Sikh tradition of the langar and what it is.
- Understand the Sikh practice of sewa and list examples.

## Vocabulary:

Sacred text	Writing that is respected for the worship of a deity.
Gurdwara	A Sikh place of worship.
Sikhism	A religion founded in Punjab in the 15 <sup>th</sup> century by Guru Nanak.
Guru Granth Sahib	The holy scripture of Sikhs.
Reincarnation	A person or animal in whom a particular soul is believed to have been reborn.
Langar	A communal free kitchen.
Sewa	A self-less service.
Mandir	A Hindu or Jain temple.
Guru	A spiritual teacher/expert.