



Knowledge Organisers

Year 7

Autumn Half Term 2

‘Practice of what is taught’

Name:

Tutor:

House:

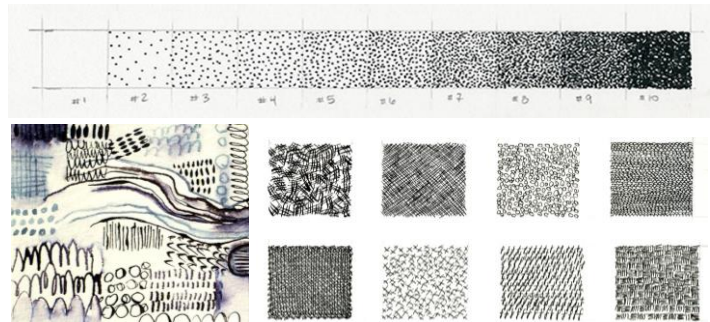
Art

Key Knowledge and Skills

Make drawings from primary and secondary resources. Focus on first on **SHAPE, FORM** and **LINE**. Then work on building skills in adding **TONE, TEXTURE, COLOUR** and **PATTERN**. Practice applying range of pressures with pencil.



Mark making - This describes the different lines, dots, marks and patterns we can make in an artwork. When you look closely at a natural form, you will see lots of detail and texture. Good artists use mark making to record all the detail they can see. Different media will create different types of marks.

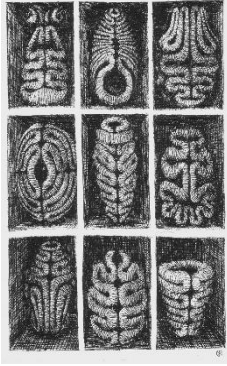


Analyse work of artists whose work is inspired by natural forms, understanding how you can be **inspired** by their processes and techniques of creating art.

Printmaking - An artistic process where you can make pictures or designs by printing them from specially prepared plates or blocks. There are lots of different types of printmaking. When artists make an image by printmaking, they use printing ink and a roller.



Collage— the process of layering materials to create an image or background which can then be worked onto using different media. You can carefully cut and present materials to create an image too.



Peter Randall-Page

Artist Peter Randall-Page was born in the UK in 1954 and studied sculpture at Bath Academy of Art from 1973-1977. During the past 40 years Peter Randall-Page has gained an international reputation through his sculpture drawings and prints. He has undertaken numerous large-scale commissions and exhibited widely. His work is held in public and private collections throughout the world. His work is inspired by the natural world and the impact that it has on us as humans. For this project we will focus mainly on his drawings and specifically his use of mark making to show texture.



Georgia O'Keeffe

Born in 1887, Georgia O'Keeffe was an American artist who painted nature in a way that showed how it made her feel. She is best known for her paintings of flowers and desert landscapes. Her unique and new way of painting nature, simplifying its shapes and forms meant that she was called a pioneer. Her style of painting is a combination of abstract and realism. She was inspired by natural landscapes and the forms she would find there, including shells, skulls, flowers and leaves.



Angie Lewin

She studied BA (Hons) Fine Art Printmaking at Central St. Martins College of Art and Design between 1983 and 1986. Inspired by both the clifftops and saltmarshes of the North Norfolk coast and the Scottish Highlands, she depicts these contrasting environments and their native flora in wood engraving, linocut, silkscreen, lithograph and collage. She is fascinated by the huge variety of different plant species and insects which has in turn inspired her artwork. Her still life's often incorporate seedpods, grasses, flints and dried seaweed collected on walking and sketching trips.



Aimee Mac

Aimee Mac lives and works in Manchester in the UK. She sells her work through her website and on sites like Etsy. Her work consists of intricate illustrations that are inspired by plants, animals and insects, ceramics and retro interiors. Highly detailed, they are made up entirely of thousands of tiny dots and lines. She uses layers of block colour to tailor her work for digital, screen and risograph printing. I work with print, contemporary homeware and textiles, surface patterns, stationery, jewellery, stickers and clothing.

Key descriptive words

natural nature textured smooth bumpy wild sharp soft spiral layered flat
detailed colour segmented seed flower shell leaves skull sections
pattern repeated thorny irregular coarse directional spiky printed drawn
organic cross-hatching pointillism hatching layered relief
three dimensional

Key terms and techniques

observational drawing pencil printing
watercolours coloured pencil
tonal texture mono printing depth collagraph printing collage materials
textures sculptural observing close up viewfinder composition relief intaglio
roller printing inks printing press printing plate sketching planning
designing drawing

Computing Knowledge Organiser



The Castle School
ACHIEVE | BELONG | PARTICIPATE



Topic: Networks

Rationale:

As students using a network in school. How are they used to share information?

Networks and the Internet

A computer **network** is when two or more computers are connected together to allow them to communicate

The **internet** is a vast network of computers all connected together.
Interconnected
Network = Internet

Networks send and receive messages in small units of data known as *packets*.

Wired and Wireless

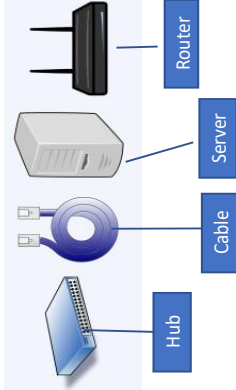
A computer network can be either wired or wireless.

Wired networks send data along cables.

Wireless networks send data through the air using radio waves.

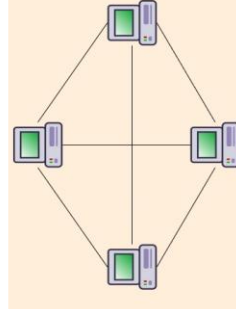


Network Hardware



Diagram

Network Diagram



Internet of Things

Any device connected to the internet is part of this network, for example:

- ☐ Laptops
- ☐ Games consoles
- ☐ PCs
- ☐ Tablets
- ☐ Mobile phones



World Wide Web

The World Wide Web is **part of** the internet that contains websites and web pages.

The Internet and the WWW are not the same thing.



Key Words

Network	A computer network is when two or more computers are connected together to allow them to communicate
Protocols	A set of rules which allow device to communicate.
Bandwidth	Amount of data that can per transferred per second.
Connectivity	The state of being connected or interconnected

DT

What is Hardwood?

Hardwood: *Come from trees that shed their leaves each autumn.*

OAK: *Very strong and hard, easy to work with, open grained light brown colour. Use in furniture.*

BIRCH: *Hard but easy to work with. Close fine grain, very light brown colour.*

Furniture and turned items

ASH: *Tough and flexible. Open grained, light and creamy brown colour.*

Tool handles, ladders, pool cues

MAHOGANY: *Fairly strong/durable. Some interlocking grain, reddish colour*

High quality furniture

BALSA: *Soft. Off white colour. Used in modelling*

Softwood: *Come from coniferous trees. They keep their leaves all year round. They grow faster than hardwoods. They have a more open grain and also typically cost less. Softwood trees can come from managed forests. As they are cut down new ones are planted. They are a renewable resource.*

PINE: *Strong and durable, easy to work with. Straight grained, yellowish colour. Used in construction and furniture*

LARCH: *Tough, water resistant and durable. Straight or spiralled grain. Yellow/brownish colour. Used in boats, exterior cladding*

SPRUCE: *Strong and hard. Lo resistance to decay. Yellowish colour. Used in construction*

What is Manufactured board?

These are made by gluing layers of wood fibres/veneers together.

They often use waste materials from the cutting of timber.

Top layers are often a high quality wood to give a good look or added protection. Manufactured boards come in very large sheets. Common sheet sizes are (8ft by 4ft).

Sheets are available in standard thicknesses (3 , 6, 9, 12, 15 mm)

MDF (Medium - density fibreboard): *Made from fine wood particles combined with glue. Smooth and easily machined. Used in furniture*

PLYWOOD: *Layers of Veneer cut or shaved from timber and glued at 90 degrees to each other. Interior and exterior grades available. Used in furniture and boat building*

CHIPBOARD: *Made from chips of timber mixed with glue and pressed together. Often covered with a laminate or polymer such as Melamine Formaldehyde. Used for cupboards and kitchen worktops.*

Key Words

Hardwood - Trees that shed their leaves each autumn.
Slow growing- expensive

Deciduous - lose their leaves

Softwood - They keep their leaves all year round. They grow faster than hardwoods. They have a more open grain and also typically cost less.

Manufactured – Produced in large quantities by machines

Coniferous – Keep leaves all year round

Durable – withstand being damaged

Veneer – A thin layer of wood normally applied to manufactured board

Task 2: watch the following YouTube video: [Greatest Design - Anglepoise Lamp \(youtube.com\)](https://www.youtube.com/watch?v=AnglepoiseLamp) and use the Cornell Note method to make notes, summarise, create questions and self-quiz.

English

CHAPTER ONE: How Nobody Came to the Graveyard

A man named Jack holds up a bloody knife. He just murdered a mother, father and young daughter in the middle of the night, and his final target is a baby boy. The boy escapes and Jack finds only a teddy bear in his bed. The baby found its way to a graveyard where ghosts, who have been dead for hundreds of years, find him. The man Jack tries to get into the graveyard to get to the boy. Two flickering figures appear and ask the ghosts to save their son. Mr and Mrs Owens, ghosts, take in the child and say they will raise him as their son. They hide him from Jack who is escorted out of the graveyard by a stranger. Silas, who is neither living nor dead, and has been given the Freedom of the Graveyard, is named as the boy's guardian, Mr and Mrs Owens will be his parents and his name is Nobody Owens, or Bod.

CHAPTER TWO: The New Friend

Growing up in the graveyard, Nobody, who goes by Bod, learns that being given the Freedom of the Graveyard means having abilities that the living do not. Bod can see in the dark, hide himself from the world of the living, and can even learn, with practice, how to Fade, Slide, and Dreamwalk. Silas teaches him the alphabet by giving Bod the task of tracing all the letters of the alphabet from the tombstones in the graveyard. One day, Bod befriends a five-year-old girl, Scarlett Amber Perkins. Bod and Scarlett decide to investigate the Frobisher's mausoleum where the oldest occupant of the graveyard is rumoured to live. At the end of the room, a purple-skinned figure named the Indigo Man approaches and warns them to leave. Because Scarlett, who can't see dead people, can see the Indigo Man, Bod realizes it's imaginary. Scarlett and Bod ignore his death threats and Bod tells him that his attempts to scare them won't work. Afterward, the Indigo Man disappears.

Scarlett and Bod then hear something slithering around the room. Bod hears voices that pronounce themselves as the Sleer, claiming they protect the place for their master and guard its treasures: a brooch, a goblet, and a knife. Bod suggests they leave and guides Scarlett back upstairs. Scarlet's family moves away.

CHAPTER THREE: The Hounds of God

Silas leaves and tells Bod he is leaving him in the care of Miss Lupescu. She gives Bod strange food that he has difficulty eating and instructs him on the different kinds of beings: day-folk and night-folk, ghouls and mist-walkers, high hunters and the Hounds of Gods, and solitary types such as Silas. Bod complains to his parents who ignore him. Feeling ignored and underappreciated, Bod walks around the graveyard hoping to find someone to talk to. Bod stops at a decrepit grave and lays down to fall asleep. Bod is woken up by three ghouls. They invite Bod to follow them and they go through a hole in the grave,

traveling through darkness before ending up in a world with an angry red sky and littered with upended graves. Bod falls into a void until he hears the voice of Miss Lupescu. To Bod's surprise, he is saved by a night-gaunt, who is actually Miss Lupescu. She informs Bod that this is the third time he has unknowingly been saved by night-gaunts.

CHAPTER FOUR: The Witch's Headstone

Bod is told by Silas that one corner of the Graveyard is only for witches, those who killed themselves and thieves. One of the occupants of Potter's Field approaches Bod. She says she isn't a thief and didn't commit suicide, so Bod asserts that she must be a witch. The girl proceeds to tell Bod about the villagers who drowned and burned her because they thought she was a witch, and how she cursed them with the plague as she died. She is sad about never receiving a headstone for her grave and tells Bod her name: Liza Hempstock. Bod tasks himself with finding Liza Hempstock a headstone, but can't afford it. Bod decides to return to the Indigo Man's tomb and takes the brooch, one of the three treasures protected by the Sleer. Bod then returns to Liza who tells Bod what she would like on her headstone. Bod tries to sell the brooch, telling the shop owner, Abanazer, that he found the brooch in a grave where there are other treasures but does not disclose which grave he found it in. He is trapped and they try to force information out of him. Liza Hempstock appears in the room with Bod. Bod learns that ghosts in Potter's Field follow different rules, and they're able to leave the graveyard during the day. Bod tells her he was trying to get her a headstone. Feeling touched and responsible for having gotten Bod into the situation, Liza helps Bod Fade and disappear by casting a spell on him.

CHAPTER FIVE: Danse Macabre

One winter morning, Bod notices the residents of the graveyard acting strange. His mother shoos him out of their crypt, claiming that she needs to get ready for tomorrow, and begins singing a song he has never heard. Silas explains to Bod that the Macabray is a dance for the living and the dead. Because Silas is neither living nor dead, he has never danced it. Bod hears music coming from the town so leaves the graveyard. He is entranced by the songs. The music ends and a clock begins to chime. Suddenly, Bod spots the ghosts from the graveyard walking down the hill and toward the town. Josiah Washington walks up to Mrs. Caraway and asks her to dance. As they begin dancing, the music starts up again, leading both the dead and the living to dance with one another throughout the night.

INTERLUDE: The Convocation

A group of men sit and listen to someone speaking. A silver-haired man named Mr. Dandy discusses with Jack his failure to kill the child (Bod) years ago and stresses the importance of finishing the job. Jack claims he has leads to follow, and thinks everything is connected to unspecified trouble they faced in San Francisco.

CHAPTER SIX: Nobody Owens's School Days

Now that Bod is eleven years old, Silas decides to tell Bod about how his parents were murdered and how the man who killed them is still searching for him. Upon hearing this, Bod proposes that he should go to school so he can be better prepared to face the man. One day, however, he gives advice to a fellow student, Paul Singh, about how to deal with two bullies: Nick Farthing and Maureen "Mo" Quilling. When Paul refuses to give his lunch money to Nick and Mo, Mo realizes that Bod was the one who convinced Paul to refuse to pay.

After school, Nick and Mo follow Bod to the graveyard to teach him a lesson. Bod is able to outsmart them by using his Fade and Fear tactics to scare them away. Silas forbids Bod from returning to school. Bod is angry and goes to Nick Farthing's house and transforms his dreams into nightmares but is caught by the police and arrested. Silas comes to save him, but Bod has to promise not to return to school.

CHAPTER SEVEN: Every Man Jack

Silas has been missing from the graveyard for several months. Mr. and Mrs. Owens discuss with Josiah Worthington what they should do with Bod since Silas, his guardian, is not around and they don't know when he will return. Mrs. Owens leaves Josiah's tomb and finds Bod, who is now fourteen years old. Bod asks Mrs. Owens when Silas will return and also asks about the man who killed his parents and sister. Mrs. Owens does not know when Silas will return, but tells Bod that Silas said the name of the man who killed Bod's family was Jack.

After Scarlett Amber Perkins's parents split up, she begrudgingly moves back to town with her mother. Scarlett is now fifteen years old. She takes the wrong bus and ends up at the graveyard. Scarlett gets a lift home with a stranger and her mother invites the man, Mr Frost, into their home.

Bod and Scarlett meet again and hug, she makes him feel safe. When Scarlett meets up with Mr. Frost and asks about how to research a murder, Mr. Frost recommends she check the files at the library. She finds a file about Bod's family (not knowing it is Bod's family), and talks to Mr Frost about it. They keep it a secret from her mother.

Scarlett and Bod go to Mr Frost's house to discuss the murders. He reveals himself to be Jack, the murderer. Bod and Scarlett escape to the graveyard but are pursued by two men working with Jack. Bod protects Scarlett by putting her in the mausoleum. Jack finds her. Bod claims to be the sleer's master and it takes Jack away.

CHAPTER EIGHT: Danse Macabre

Bod's ability to communicate with the dead slowly starts to dwindle by the time he is fifteen. Bod visits his mother and father, and Mr. Owens tells Bod that he's the best son they could've hoped for. Mr. Owens tells Bod that Silas is looking for him. On his way to the chapel, Bod stumbles upon Liza who kisses him and expresses her hope that Bod will miss her. Bod doesn't know what she means. When Bod sees Silas, Silas informs Bod that they will be leaving the graveyard and going their separate ways; it's time for Bod to join the living and see the world. Though Bod relents at first, he knows it is the right thing to do. On his way out the graveyard, Bod sees his mother who tells him to go out there and see the world, singing a song from Bod's youth as a final goodbye. Bod acknowledges that he has spent most of his life in the world of the dead, but now it is time to be a part of the living.

Reading Articles

You will have a reading article each week linking to the whole school theme for that week:

Week 1: Remembrance

Week 2: Kindness

Week 3: Resilience

Week 4: Equality

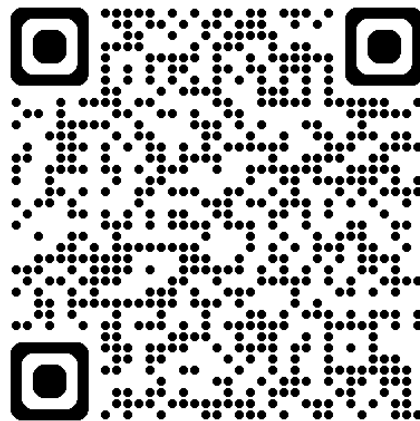
Week 5: Gratitude

Week 6: Celebration

Read the article and highlight three words of which you were not sure. Then write the definition and draw an image which will help you remember.

As you read the articles, you will identify that the articles are not in UK English. However, the articles offer some great messages.

Use this QR code to access the reading articles read by a teacher:





Sparx Reader

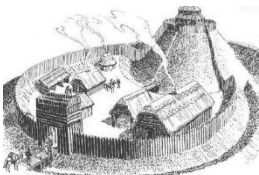
On a Tuesday and every other Friday, you should log on to Sparx reader and spend 30 minutes reading.



Week 2 - The UK and the wider world – trade links	Week 4 – The UK and the wider world – political links
<p>The UK has many links with other countries around the world. The UK exports goods worth £250 billion a year. The Channel Tunnel has meant that people and goods can move quickly to European countries. Media exports have increased enormously such as Peppa Pig which is exported to 170 countries.</p>	<p>The 56 Commonwealth countries which used to be part of the British Empire meet every 2 years to discuss common values and goals to improve the quality of life for people.</p> <p>The British public voted for Brexit in 2016. Now people from Europe have to apply for a visa to live and work here. Another organisation that The UK belongs to is NATO which is an alliance of 28 countries bordering the North Atlantic Ocean. NATO was created in 1949 to provide security for those nations against the possible expansion of Russia.</p>
Week 6 – To understand what our perceptions of Africa are	Week 8 – To know what Africa's main physical features are
<p>A stereotype is an oversimplified view about a group or place, while a misconception is a view or opinion based on something that is factually wrong. There are many misconceptions about Africa, such as the belief that Africa is a single country, that everyone in Africa is poor, and that everyone in Africa speaks a language called "African." In reality, Africa is a diverse continent with a rich tapestry of cultures, languages, and economic conditions.</p>	<p>The continent is also home to many remarkable physical features, including major rivers like the Nile, Zambezi, and Congo, as well as lakes such as Lake Victoria. Africa's mountainous regions include the Atlas Mountains, Mount Kenya, and Mount Kilimanjaro, which is the highest peak on the continent.</p>

History: What did the English think when William took control?

Component	Granular substantive knowledge	Disciplinary literacy (Key words)
<p>Week 1: Gaining control: Why did William win the Battle of Hastings?</p>  <p>What problems did William face and what impact would this have on the English?</p> 	<p>The Romans left England around 400AD/CE. Between 400 AD/CE and 1066, England was ruled by the Saxons. The Vikings also conquered parts of England from 800 AD/CE. <u>This time is known as the Dark Ages.</u></p> <p>In 1066 Saxon King, Edward the Confessor died with no heir. Three key contenders wanted the throne: Harold Godwinson (An English/Saxon Earl), Harald Hardrada (A Norwegian/Viking King) and Duke William of Normandy (A Norman)</p> <p>On the 14th of October 1066, Duke William of Normandy defeated King Harold at the Battle of Hastings. Some argue that William was a better leader. However, many factors contributed to William's victory: William was better prepared. The English army was severely weakened before Hastings. Harold had just had to fight off an invasion in the North of England by Harald Hardrada and the Vikings (This was the Battle of Stamford Bridge just outside York, 300 miles from Hastings). Harold lost many of his best men and his men were tired. Harold made the mistake of entering the Battle of Hastings before his men had fully recovered. Luck or chance played a part because Harold had been ready for William's invasion but storms had stopped William from crossing the English Channel to attack. While Harold was North fighting the Vikings, the weather changed and William was able to cross the Channel and land safely in England. During the Battle of Hastings, the Normans pretended to retreat and when the Saxons left Senlac Hill and chased after them, the Normans turned around and slaughtered them. The Normans had another advantage, they had cavalry whereas the Saxons all fought on foot. Harold Godwinson was killed. William and the Normans had won!</p>	<p>Contender: a person or group competing with others to achieve something.</p> <p>Saxons: a group of people from Saxony (Northern Germany) Anglo-Saxons: The Saxons who settled in England...eventually known as the English</p> <p>Vikings: Is the modern name given to sea travelling people from Scandinavia (Northern Europe: present-day Denmark, Norway and Sweden)</p> <p>Normans: Originally Vikings, this group settled in Normandy (Northern France) in 911 A.D</p> <p>Monarch: A King or Queen</p> <p>Baron: A rich, landowning Norman knight</p> <p>Invasion: An unwelcome attack of one country's army into another country</p> <p>Cavalry: Soldiers who fight on horseback.</p> <p>Conquest: When one country takes over another. To conquer is to achieve conquest</p> <p>Victory: To win a war – to have success</p> <p>Bayeux Tapestry: A long set of pictures sewn on cloth showing the story of the Norman conquest of England. This gives the Norman version of events!</p>
<p>Week 3: How did William's use of terror help him to keep control over the English?</p>	<p>William had to crush many rebellions. The biggest rebellion was in the north of England between 1068- 1069. He trusted two Saxon Earls, Edwin and Morcar, to look after that part of the country for him. When William tried to raise taxes from their land, they joined forces with some Danish invaders and rose up against the Normans in 1069. William marched an army up North to teach them a lesson that they would never forget. From 1069 to 1070, he ordered villages to be destroyed and people to be killed. Herds of animals and crops were burnt. Most people who survived starved to death (100,000). Not only was the population reduced by 75% but land was salted (poisoned)</p>	<p>To Harry: To trouble a group of people by repeated attacks</p> <p>Harrying of the North: Mass killing of Saxon's in and around the city of York.</p> <p>Terror and terrorism: using fear to try and control people.</p> <p>Absolute Monarchy: King can do anything he wants.</p> <p>Control: power over people</p> <p>Rebel / rebellion: to fight back against those in power</p>

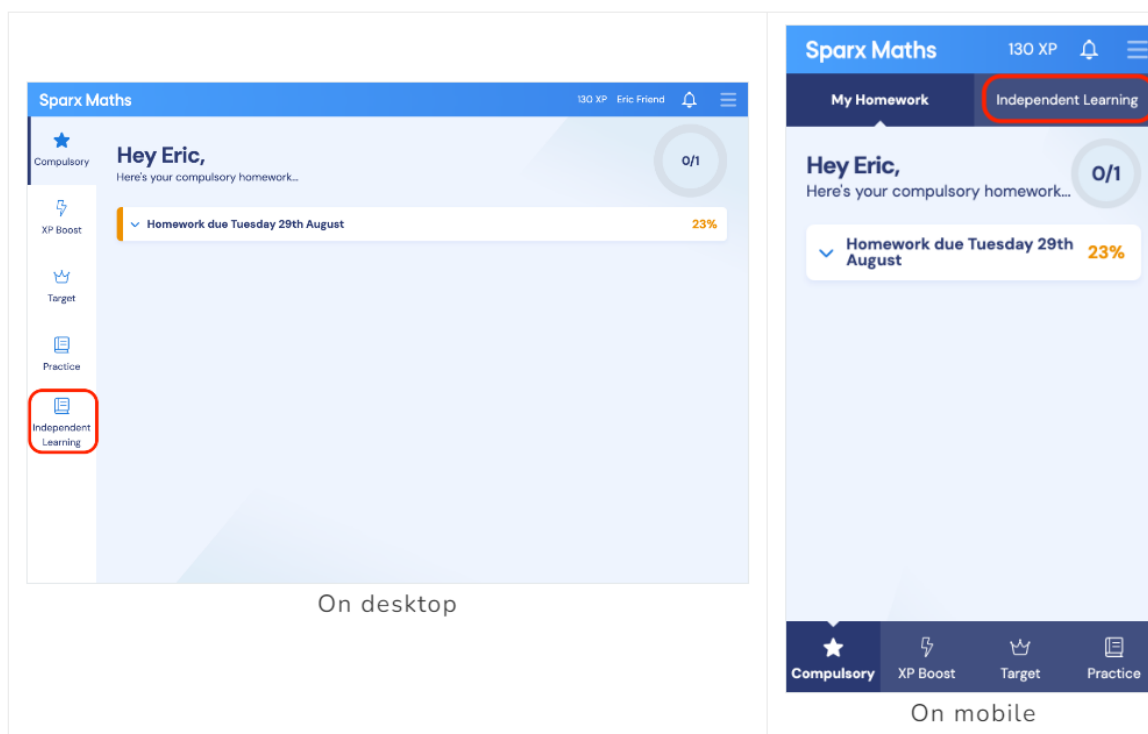
	to prevent people growing crops in the future. This was called the Harrying of the North. Following these events there were no more widespread rebellions against William.	Famine: When crops fails and large numbers of people starve Cannibalism: Eating human flesh
Week 5: How did William's use of castles help him to keep control over the English? 	<p>Castles were vital to Williams's takeover and control of England. The Normans built Motte and Bailey style castles. These were constructed out of earth and wood. They were built for speed as there were 10,000 Normans facing a population of two million Saxons! Castles would protect Norman soldiers as well as acting as a base to attack and conquer a new area of land. They were built on high ground at river crossings so Normans could control the movement of goods and people.</p> <p>Castles would have helped maintain law and order. They provided jobs for the local community. Saxons were forced to build them without payment, often taxes were raised to pay for the very buildings which would control them. Often Saxons homes were destroyed to make way for the castles e.g. in Lincoln. The Saxons would have felt intimidated and fearful and felt watched over. Alongside the Motte and Bailey Castles some early stone castles were constructed e.g. the Tower of London and Chepstow Castle.</p>	<p>Motte and Bailey Castles: Castles constructed out of soil and wood Motte: Norman word for mound. Bailey: A courtyard enclosed by a curtain wall or palisade. This area had the day to day living areas housed within it. Palisade: a wooden fence of pales or stakes set firmly in the ground, acting as a defensive wall. Keep: A strong tower. The best place to keep safe! This was built at the top of a motte in a Motte and Bailey castle Moat: A ditch filled with water surrounding a castle. Drawbridge: A gate over a ditch or moat that can be raised as defence.</p>

Maths

On a Monday, your Maths task will be set by your teacher. You should log on to Sparx Maths to complete this task. Your practice book has an area for your workings which you need to use as during the homework, Sparx Maths undertakes a bookwork check.

On a Thursday you practice independently on an area where you have a gap in your knowledge.

When logged in to Sparx students will always be able to see the Independent Learning option on the main menu:



MFL – French

Tu as un stylo? Do you have a pen?

Verb	Equipment	Please
J'ai (I have)	un (nouveau) cahier (a (new) book) un stylo (vert) (a pen)(green)	
Je voudrais (I would like) Je peux emprunter (I can borrow) Je peux avoir (I can have)	un crayon (a pencil) un surligneur (a highlighter)	s'il vous plaît? (please)
	une gomme (a rubber)	
	des ciseaux (some scissors)	

Verb + negative structure	Equipment
Je n'ai pas de (I don't have (a))	stylo (vert) (a pen) (green)
	gomme (rubber)
	ciseaux (scissors)

Quel âge as-tu? Quel âge a ta soeur? How old are you? How old is your sister?

Please note – in French, you use the verb ‘to have’ to talk about your age e.g. j’ai dix ans

Part of ‘avoir’ verb	Number	Years
J’ai <i>(I have)</i>	cinq (5)	ans
il a <i>(he has)</i> Mon (beau) père a <i>(my (step) dad has)</i> Mon frère a <i>(my brother has)</i>	dix (10)	<i>years old</i>
elle a <i>(she has)</i> Ma (belle) mère a <i>(My (step) mum has)</i> Ma soeur a <i>(my sister has)</i>	quinze (15) vingt (20) vingt-cinq (25) trente (30)	

C’est quand, ton anniversaire? When is your birthday?

My birthday is	Number	Month
Mon anniversaire c’est le <i>(My birthday is the)</i>	[number] premier* (1 st) dix (10 th) quinze (15 th)	[month] mars (<i>March</i>) juillet (<i>July</i>) novembre (<i>November</i>)

* = exception. You say the first of June instead of the number one in French. You use the number for all other dates.

Parle-moi de ta famille. Talk to me about your family

Part of 'avoir' verb	Family member
J'ai <i>(I have)</i>	un (beau) père.
	a (step) dad.
	un (demi) frère
	a (half) brother
	un oncle
	an uncle
	un grand-père
	a grandad
	une (belle) mère
	a (step) mum
	une (demi) soeur
	a (half) sister
	une tante
	a sister
	une grand-mère
	deux soeurs
	two sisters

<i>My + family member</i>	is/ are called
mon (beau) père. my (step) dad. mon (demi) frère a (half) brother mon oncle my uncle mon grand-père my grandad	s'appelle... is called
ma (belle) mère my (step) mum ma (demi) soeur my (half) sister ma tante my sister ma grand-mère	
ils (they) mes frères /soeurs (my brothers/sisters)	ils s'appellent (they are called – group of boys) elles s'appellent (they are called – group of girls)

Tu es comment? Comment est ton frère? What are you like? What is your brother like?

Part of être verb	Qualifier	Adjective (male or female spelling)
Je suis (I am) Je ne suis pas (I am not)	assez (quite) très (very) vraiment (really)	intelligent / intelligente (intelligent) bavard / bavarde (chatty) branché / branchée (trendy) amusant / amusante (funny) arrogant / arrogante (arrogant) grand / grande (tall) patient / patiente (patient) petit / petite (short) fort / forte (strong) timide / timide (shy)
il est (he is) mon oncle est (my uncle is)		
elle est (she is) ma tante est (my aunt is)		<p>There are two spellings of each adjective. Use the first one if you are describing a male and the second for describing a female.</p>

French High Frequency Words

Week 1:

Je voudrais	I would like
J'ai	I have
Je n'ai pas de	I don't have a
un stylo	a pen
Je peux emprunter	Can I borrow
un crayon	a pencil
merci	thank you
s'il vous plaît	please

<https://quizlet.com/a4vgou?x=1qqt&i=1xg9z8>

Week 2 :

bonjour	hello
salut	hi
au revoir	goodbye
je m'appelle	I am called
Ça va?	how are you?
Ça va bien.	I'm fine
J' ai (douze) ans	I am (12) years old
Mon anniversaire, c'est le (dix mars)	My birthday is on the (10th March)
Je voudrais	I would like
Je n'ai pas de	I don't have a

<https://quizlet.com/a4vhf8?x=1qqt&i=1xg9z8>

Week 3:

mon (père)	my dad
ma (mère)	my mum
mes (parents)	my parents
il a	he has
elle a	she has
il s'appelle	he is called
elle s'appelle	she is called
mon père s'appelle	my dad is called
Je m'appelle	I am called
J'ai	I have

<https://quizlet.com/a4viif?x=1qqt&i=1xg9z8>

Week 4 :

je suis	I am
je ne suis pas	I am not
il est	he is
elle est	she is
mon frère est	my brother is
il n'est pas	he is not
elle n'est pas	she is not
j'ai	I have
il a	he has
elle a	she has

<https://quizlet.com/a4vjaz?x=1qqt&i=1xg9z8>

Week 5:

sur la photo	in the photo
il y a	there is /are
(dix) personnes	(10) people
un homme	a man
une femme	a woman
une fille	a girl
un garçon	a boy
J'aime la photo	I like the photo
il est	he is
elle est	she is

<https://quizlet.com/a4vk2i?x=1qqt&i=1xg9z8>

Week 6 :

Je m'appelle...	I am called...
Je suis (bavard(e))	I am (chatty)
J' ai (onze) ans	I am (11) years old
J'ai un frère	I have a brother
Il s'appelle...	He is called...
Il est (intelligent)	He is (intelligent)
Il a (neuf) ans	He is 9 years old
J'ai une soeur	I have a sister
Elle est (timide)	She is (shy)
Elle s'appelle...	She is called...

<https://quizlet.com/a4vknd?x=1qqt&i=1xg9z8>

Week 7:

All of the above!

MFL - German

Wie geht's dir heute? (How are you today?)

SUBJECT- VERB	ADVERB		SUBORD. CONJUNCTION	SUBJECT...	ADJECTIVE		...VERB
Es geht mir <i>(I'm feeling)</i>	prima sehr gut gut ganz ok nicht so gut schlecht	<i>(great)</i> <i>(very well)</i> <i>(well)</i> <i>(alright)</i> <i>(not so good)</i> <i>(feeling bad)</i>	weil <i>(because)</i> obwohl <i>(although)</i>	ich <i>(I)</i>	aufgeregt entspannt glücklich gesund zufrieden gestresst krank müde nervös traurig	<i>(excited)</i> <i>(relaxed)</i> <i>(happy)</i> <i>(healthy)</i> <i>(satisfied)</i> <i>(stressed)</i> <i>(ill)</i> <i>(tired)</i> <i>(nervous)</i> <i>(sad)</i>	bin <i>(am)</i>

Wie alt bist du? (How old are you?)

Subject and verb	Number		Old
Ich bin I am Er ist He is Sie ist She ist Sie sind They are	ein 1 zwei 2 drei 3 vier 4 fünf 5 sechs 6 sieben 7 acht 8 neun 9 zehn 10 elf 11 zwölf 12	Jahr years Jahre years	alt old

Wann hast du Geburtstag? (When is your birthday?)

Subject and verb		Number (ordinal – th)	Month	Noun
Ich habe <i>I have</i>	am <i>on</i>	ersten 1 st	Januar <i>January</i>	Geburtstag <i>birthday</i>
Er hat <i>He has</i>	<i>the</i>	zweiten 2 nd	Februar <i>February</i>	
Sie hat <i>She has</i>		dritten 3 rd	März <i>March</i>	
Sie haben <i>They have</i>		vierten 4 th	April <i>April</i>	
		fünften 5 th	Mai <i>May</i>	
		sechsten 6 th	Juni <i>June</i>	
		siebten 7 th	Juli <i>July</i>	
		achten 8 th	August <i>August</i>	
		neunten 9 th	September	
		zehnten 10 th	<i>September</i>	
		elften 11 th	Oktober <i>October</i>	
		zwölften 12 th	November <i>November</i>	
		dreizehnten 13 th	Dezember <i>December</i>	
		vierzehnten 14 th		
		fünfzehnten 15 th		
		sechzehnten 16 th		
		siebzehnten 17 th		
		achtzehnten 18 th		
		neunzehnten 19 th		
		zwanzigsten 20 th		
		einundzwanzigsten 21 st		
		zweiundzwanzigsten 22 nd		
		dreiundzwanzigsten 23 rd		
		vierundzwanzigsten 24 th		
		fünfundzwanzigsten 25 th		
		sechsendzwanzigsten 26 th		

		siebenundzwanzigsten 27 th		
		achtundzwanzigsten 28 th		
		neunundzwanzigsten 29 th		
		dreißigsten 30 th		
		einunddreißigsten 31 st		

Wie bist du? (What are you like?)

Subject and verb	Intensifier	Adjective of personality	Connective	Adjective of personality
Ich bin <i>I am</i>	extrem <i>extremely</i>	alt <i>old</i>	und <i>and</i>	faul <i>lazy</i>
Er ist <i>He is</i>	zu <i>too</i>	altmodisch <i>old-fashioned</i>	aber <i>but</i>	freundlich <i>friendly</i>
Sie ist <i>She is</i>	echt <i>really</i>	begabt <i>talented</i>	und auch <i>and also</i>	intelligent <i>intelligent</i>
Sie sind <i>They are</i>	total <i>totally</i>	fleißig <i>hard-working</i>	oder <i>or</i>	laut <i>loud</i>
	sehr <i>very</i>	gut aussehend <i>good looking</i>		lustig <i>funny</i>
	ziemlich <i>quite</i>	hübsch <i>pretty</i>		musikalisch <i>musical</i>
	ein bißchen <i>a bit</i>	kreativ <i>creative</i>		schüchtern <i>shy</i>
	nicht sehr <i>not very</i>	launisch <i>moody</i>		sportlich <i>sporty</i>
	nicht <i>not</i>	modisch <i>fashionable</i>		unpünktlich <i>unpunctual</i>
	gar nicht <i>not at all</i>	nett <i>nice</i>		

Wie ist er? / Wie ist sie? (What is he like? / What is she like?)

Verb	Noun / Person	Connective	Subject and verb OR Verb and subject	Comparative	Comparative connective THAN	Noun
Ich liebe <i>I love</i> Ich mag <i>I like</i> Ich hasse <i>I hate</i> Ich mag... nicht <i>I don't like</i>	Beyoncé	denn because	er ist <i>he/it is (m)</i>	netter <i>nicer/kinder</i>	als than	Rihanna
	Messi		sie ist <i>she/it is (f)</i>	hübscher <i>prettier</i>		Ronaldo
	Little Mix		es ist <i>it is (nt)</i>	besser <i>better</i>		One Direction
	Donald Trump		sie sind = <i>they are (pl)</i>	begabter <i>more talented</i>		Rishi Sunak
	Harry Styles			doofer <i>more stupid</i>		Boris Johnson
	Herr Lamb			intelligenter <i>more intelligent</i>		Herr Beer
	Frau Jones			sportlicher <i>sportier</i>		Frau Reid
	Chelsea		ist er <i>he/it is (m)</i>	besser- aussehend <i>better-looking</i>		
	Yeovil F.C.		ist sie <i>she/it is (f)</i>	 kreativer <i>more creative</i>		
			ist es <i>it is (nt)</i>	 fleißiger <i>more hard-working</i>		
		jedoch however	sind sie <i>they are (pl)</i>			

German High Frequency Words

Week 1:

Hallo	Hello
Guten Morgen	Good morning
Guten Tag	Good afternoon
Ich heie	I am called
Wie geht's?	How are you?
Mir geht's gut	I am fine
nicht so schlecht	Not so bad
Auf Wiedersehen	Goodbye

Week 2 :

Ich bin (elf) Jahre alt	I am 11 years old
Er ist (zwlf) Jahre alt	He is 12 years old
Sie ist (dreizehn) Jahre alt)	She is 13 years old
elf	11
zwlf	12
Mein Geburtstag ist	My birthday is on... am...
Juni	June
Juli	July
<i>Ich heie</i>	<i>I am called</i>
<i>Mir geht's gut</i>	<i>I am fine</i>

Week 3:

Ich bin	I am
Du bist	You are
Er ist	He is
Sie ist	She is
ganz	quite
ziemlich	rather
Ich liebe	I love
Ich hasse	I hate
<i>Mein Geburtstag ist am...</i>	<i>My birthday is on...</i>
<i>Ich bin (elf) Jahre alt</i>	<i>I am 11 years old</i>

Week 4:

gut	good
besser (als)	Better (than)
lustig	funny
lustiger	funnier
Jedoch	however
Auch	also
Und	and
aber	<i>but</i>
<i>Ich bin</i>	<i>I am</i>
<i>Er/sie ist</i>	<i>He/she is</i>

Week 5:

Ich liebe	I love
Ich hasse	I hate
Ich mag	I like
Ich mag (Jenny) nicht	I don't like (Jenny)
jedoch	however
auch	also
und	and
oder	or
<i>aber</i>	<i>but</i>
<i>Ich bin</i>	<i>I am</i>

Week 6 & 7: All of the above!

MFL – Mandarin

你多大？我十一岁。 How old are you? I am 11 years old.

Subject	number	years old
wǒ 我	yī 1	sù 岁
nǐ 你	èr 2	
You	sān 3	
tā 他	sì 4	
He	wǔ 5	
tā 她	liù 6	
She	qī 7	
lǎo shī 老师	bā 8	
Teacher	jiǔ 9	
	shí 10	
	shí yī 11	
	shí èr 12	
	èr shí 20	
	sān shí 30	
	sì shí 40	
	wǔ shí 50	
	liù shí 60	
	qī shí 70	
	bā shí 80	

Basic greetings

	Greetings in Chinese characters	English
1	nǐ hǎo! 你好!	Hello!
2	nín hǎo! 您好!	Hello! (respectful form)
3	nǐ hǎo ma? 你好吗?	How are you?
4	wǒ hěn hǎo, xièxiè! nǐ ne? 我很好, 谢谢! 你呢?	I am very well, thank you. And you?
5	wǒ yě hěn hǎo, xièxiè! 我也很好, 谢谢!	I am also very well, thank you.
6	zǎo shàng hǎo! 早上好!	Good morning!
7	lǎo shī hǎo! 老师好!	Hello, teacher!
8	máng bù máng? 忙不忙?	(Are you) busy or not busy?
9	hěn máng。 很忙。	(I am) very busy.
10	bù máng。 不忙。	(I am) not busy.
11	zài jiàn! 再见!	Goodbye!
12	lǎo shī zài jiàn! 老师再见!	Goodbye, teacher!

nǐ jiào shén me míng zì? wǒ jiào lǐ níng
你叫什么名字? 我叫李宁。 What is your name? My name is Li Ning.

Subject	to be called	name
wǒ 我 I	jiào 叫	lǐ níng 李宁 Li Ning
nǐ 你 You		chéng lóng 成龙 Jacky Cheng
tā 他 He		
tā 她 She		Lily Jones
lǎo shī 老师 Teacher		

Week 1

1	一	1
2	二	2
3	三	3
4	四	4
5	五	5
6	六	6
7	七	7
8	八	8
9	九	9
10	十	10

1	口	mouth
2	人	person
3	火	fire
4	木	Tree; wood
5	山	mountain
6	日	Sun; day
7	月	Moon; month
8	门	Door; gate
9	女	female
10	王	king

1	水	water
2	厶	Roof with chimney
3	你	You
4	多	Many; much
5	大	big
6	我	I; me
7	岁	...years old
8	他	He; him
9	她	She; her
10	好	Good; well

1	我	I; me
2	叫	Call; to be called
3	再	again
4	见	Meet; see
5	早	Early; morning
6	上	Up; go
7	老	old
8	师	master
9	忙	busy
10	不	No; not

1	早	Morning
2	也	also
3	他	He; him
4	她	She; her
5	讠	Speech radical
6	饣	Food radical
7	艹	Plant/grass radical
8	父	father
9	鸟	bird
10	雨	rain

1	马	horse
2	妈	mum
3	可	Can; may
4	哥	Older brother
5	且	In addition
6	姐	Older sister
7	未	future
8	妹	Younger sisiter
9	有	Have/has
10	和	and

Spanish

¿Cómo te llamas? - *What's your name?*

llamarse (to be called)	name
Me llamo	Isabel
<i>I'm called</i>	Miguel
Te llamas	
<i>You're called</i>	
Mi amigo se llama	
<i>My friend (male) is called</i>	
Mi amiga se llama	
<i>My friend (female) is called</i>	

¿Qué tal? / ¿Cómo estás? = *How are you?*

estar (to be)	
Estoy	(muy) bien – <i>(very) good</i>
<i>I'm</i>	contento / a - <i>happy</i>
Estás	fantástico / a - <i>fantastic</i>
<i>You're</i>	feliz - <i>happy</i>
Está	fenomenal – <i>amazing</i>
<i>He is / She is</i>	genial – <i>great</i>
	cansado/a - <i>tired</i>
	fatal - <i>awful</i>
	mal - <i>bad</i>
	triste – <i>sad</i>



¿Dónde vives ahora? *Where do you live now?*

Time Phrase	vivir (to live)	Place	Extra detail
Ahora = Now	(yo) vivo en = <i>I live in</i> <i>Mi amigo vive en =</i> <i>my friend (male) lives</i>	un pueblo = <i>a village / a town</i> una ciudad = <i>a city</i>	que se llama Taunton = <i>that is called Taunton</i> que se llama Bristol = <i>that is called Bristol</i>
En el futuro = <i>In the future</i>	(yo) voy a vivir en = <i>I am going to live in</i> (yo) no voy a vivir en = <i>I am not going to live in</i> (yo) nunca voy a vivir en = <i>I am never going to live in</i>	el campo = <i>the countryside</i> la costa = <i>the coast</i> la montaña = <i>the mountain</i> España = <i>Spain</i> Inglaterra = <i>England</i>	

¿Cuántos años tienes? - How old are you?

tener (to have)a	Number	Connective	My friend...	Number
(Yo) tengo = <i>I have</i> (Tú) tienes = <i>You (singular) have</i> (Él) tiene = <i>He has</i> (Ella) tiene = <i>She has</i> (Nosotros) tenemos = <i>We have</i> (Vosotros) tenéis = <i>You (plural) have</i> (Ellos) tienen = <i>They have</i>	un año = <i>1 year</i> dos años = <i>2 years</i> tres años = <i>3 years</i> cuatro años = <i>4 years</i> cinco años = <i>5 years</i> seis años = <i>6 years</i> siete años = <i>7 years</i> ocho años = <i>8 years</i> nueve años = <i>9 years</i> diez años = <i>10 years</i> once años = <i>11 years</i> doce años = <i>12 years</i> trece años = <i>13 years</i> catorce años = <i>14 years</i> quince años = <i>15 years</i>	pero = <i>but</i>	Mi amigo tiene = My (male) friend has Mi amiga tiene = My (female) friend has	un año = <i>1 year</i> dos años = <i>2 years</i> tres años = <i>3 years</i> cuatro años = <i>4 years</i> cinco años = <i>5 years</i> seis años = <i>6 years</i> siete años = <i>7 years</i> ocho años = <i>8 years</i> nueve años = <i>9 years</i> diez años = <i>10 years</i> once años = <i>11 years</i> doce años = <i>12 years</i> trece años = <i>13 years</i> catorce años = <i>14 years</i> quince años = <i>15 years</i>

¿Cuándo es tu cumpleaños? - *When is your birthday?*

my birthday	is	the	number		of	month
Mi cumpleaños My birthday	es is	el the	uno 1	diecisiete 17	de	enero January
			dos 2	dieciocho 18	of	febrero February
			tres 3	diecinueve 19		marzo March
			cuatro 4	veinte 20		abril April
			cinco 5	veintiuno 21		mayo May
			seis 6	veintidós 22		junio June
			siete 7	veintitrés 23		julio July
			ocho 8	veinticuatro 24		agosto August
			nueve 9	veinticinco 25		septiembre September
			diez 10	veintiséis 26		octubre October
			once 11	veintisiete 27		noviembre November
			doce 12	veintiocho 28		diciembre December
			trece 13	veintinueve 29		
			catorce 14	treinta 30		
			quince 15	treinta y uno 31		
			dieciséis 16			

Spanish High Frequency Words

Week 1:

me llamo	I'm called
se llama	he/she is called
gracias	thank you
de nada	you're welcome
lo siento	sorry
tengo	I have
no tengo	I don't have
¿Tienes.... ?	Do you have.... ?
buenos días	good morning
hasta luego	see you soon

[Y7 HT2 SP High Frequency Vocabulary Week 1 Flashcards | Quizlet](#)

Week 2:

no entiendo	I don't understand
sí	yes
estoy bien	I am fine
estoy	I am
está	he/she is
¿Cómo te llamas ?	What are you called?
¿Cómo estás ?	How are you ?
bien	good
mal	bad
tengo	I have
me llamo	I am called

[Y7 HT2 SP High Frequency Vocabulary Week 2 Flashcards | Quizlet](#)

Week 3:

tengo once años	I am 11 years old
tiene doce años	he is 12 years old
tiene trece años	she is 13 years old
¿Cuántos años tienes ?	How old are you ?
¿Cuándo es tu cumpleaños ?	When is your birthday ?
mi cumpleaños es el...	my birthday is the...
junio	June
julio	July
Tengo	I have
no tengo	I don't have

[Y7 HT2 SP High Frequency Vocabulary Week 3 Flashcards | Quizlet](#)

Week 4:

la fecha	date
¿Puedo ir al baño ?	Can I go to the toilet?
once	11
doce	12
trece	13
catorce	14
quince	15
dieciséis	16
mi cumpleaños	my birthday
tengo	I have

[Y7 HT2 SP High Frequency Vocabulary Week 4 Flashcards | Quizlet](#)

Week 5:

me encanta	I love
odio	I hate
me gusta	I like
no me gusta	I don't like
no me gusta nada	I really don't like
también	also
y	and
pero	but
la fecha	date
¿Puedo ir al baño ?	Can I go to the toilet?

[Y7 HT2 SP High Frequency Vocabulary Week 5 Flashcards | Quizlet](#)

Week 6:

pienso que	I think that
es	(he/she/it) is
son	(they) are
muy	very
bastante	quite
porque	because
fácil	easy
difícil	difficult
también	also
pero	but

[Y7 HT2 SP High Frequency Vocabulary Week 6 Flashcards | Quizlet](#)

Week 7:

All of the above!

Music

- 1) Go to teachinggadget.com on a computer or scan this QR code on your phone or tablet.

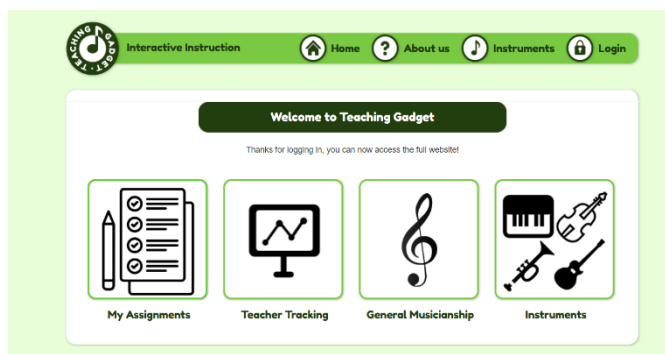


- 2) Click 'Log In'.



- 3) Type the username and password below:

- 4) Click 'My Assignments'



5) Click the drop-down box and select your class. Then click the box 'Select Class'

6) The next page will display the lessons or quizzes you will need to complete for homework. Below is an example of what you will see.

Class	Assignment	Description	Date Set	Date Due
7G2 Leech MonP1	Pitch Quiz – Treble Clef Spaces	1.	20-11-2023	20-11-2023
7G2 Leech MonP1	Pitch Quiz – Treble Clef Lines	2.	20-11-2023	20-11-2023
7G2 Leech MonP1	Pitch Quiz – Treble Clef Level 1	3.	20-11-2023	20-11-2023
7G2 Leech MonP1	Pitch Quiz – Bass Clef Spaces	4. Extention	20-11-2023	20-11-2023
7G2 Leech MonP1	Pitch Quiz – Bass Clef Lines	5. Extension	20-11-2023	20-11-2023
7G2 Leech MonP1	Pitch Quiz – Bass Clef Level 1	6. Extension	20-11-2023	20-11-2023
7G2 Leech MonP1	Pitch Quiz – Alto Clef Level 1	Xander	20-11-2023	20-11-2023

D	Dynamics	How loud or quiet the music is played	
R	Rhythm	Rhythm and duration is how long or short a note or rest is	 tea co ffee tea tea
S	Structure & Form	The overall plan or order of a piece of music	
M	Metre	How many beats are in the bar and what type of beat they are, the Time Signature The top number shows there are 3 beats in a bar The bottom number 4 shows the type of beat is a crotchet.	
	Melody	The tune. Moving by step or leap? High or low?	
I	Instrumentation / Voices (Sonority)	Describes the particular sound quality of an instrument or voice. E.g the cymbal sounds like a metallic crash	
T	Texture	Texture describes how melody, harmony and rhythm are layered in a piece of music	
	Tempo	How fast or slow the piece of music is played	
	Tonality	The key of the piece e.g Major or Minor	
H	Harmony	The chords (two notes or more notes played at the same time)	



Note Values

This is a *Rhythm Tree* – it is designed to help you identify what the symbols for different note values are, and how they relate to one another. Here are the note values!

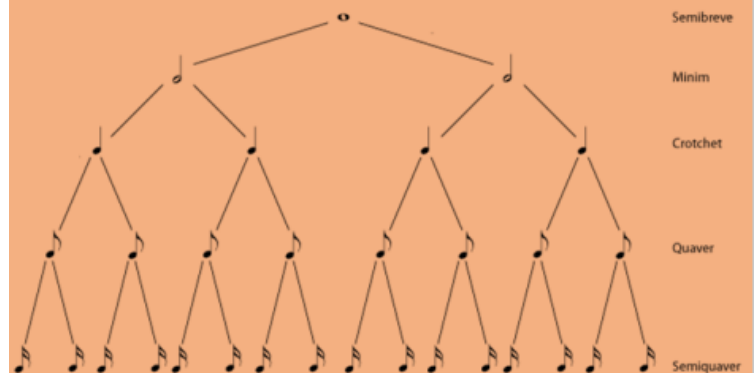
Semibreve = 4 beats

Minim = 2 beats

Crotchet = 1 beat

Quaver = ½ beat

Semiquaver = ¼ beat



Notes on the Stave

Here are the notes of the **treble** (top line) and **bass** (bottom line) clefs. When the notes fall outside the five lines of music paper, we add extra lines called **ledger** lines. Here are some phrases to help you remember where the notes go!

Treble Clef Lines: Every Green Bus Drives Fast

Treble Clef Spaces: F A C E (in the space!)

Bass Clef Lines: Green Buses Drive Fast Always

Bass Clef Spaces: All Cows Eat Grass

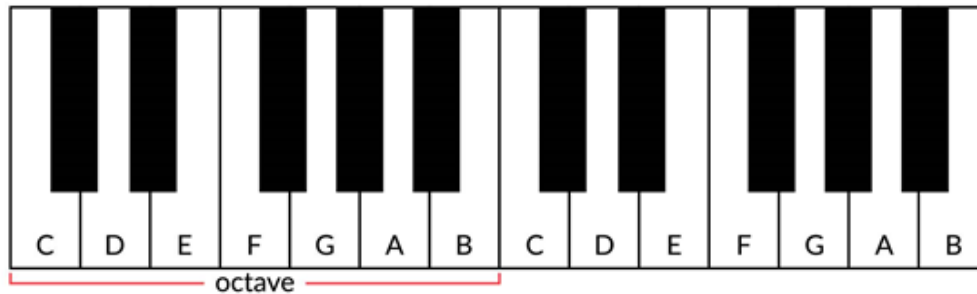


Keyboard Skills

Exploring Treble Clef Reading and Notation



A. Layout of a Keyboard/Piano



A piano or keyboard is laid out with **WHITE KEYS** and **Black Keys** (see section G). C is to the left of the two Black Keys and the notes continue to G then they go back to A again. Notes with the same letter name/pitch are said to be an **OCTAVE** apart. **MIDDLE C** is normally in the centre of a piano keyboard.

D. Keyboard Functions



E. Left Hand/Right Hand (1-5)



B. Treble Clef & Treble Clef Notation

A **STAVE** or **STAFF** is the name given to the five lines where musical notes are written. The position of notes on the stave or staff shows their **PITCH** (how high or low a note is). The **TREBLE CLEF** is a symbol used to show high-pitched notes on the stave and is *usually* used for the right hand on a piano or keyboard to play the **MELODY** and also used by high pitched instruments such as the flute and violin. The stave or staff is made up of 5 **LINES** and 4 **SPACES**.



Every Green Bus Drives Fast. Notes in the **SPACES** spell "FACE"



Notes from **MIDDLE C** going up in pitch (all of the white notes) are called a **SCALE**.

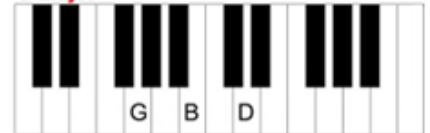


C. Keyboard Chords

C Major



G Major



F Major



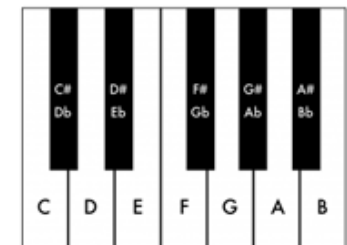
A Minor



Play one – Miss one – play one – miss one – play one

F. Black Keys and Sharps and Flats

There are five different black notes or keys on a piano or keyboard. They occur in groups of two and three right up the keyboard in different pitches. Each one can be a **SHARP** or a **FLAT**. The # symbol means a **SHARP** which raises the pitch by a semitone (e.g. C# is higher in pitch (to the right) than C). The b symbol means a **FLAT** which lowers the pitch by a semitone (e.g. Bb is lower in pitch (to the left) than B). Each black key has 2 names – C# is the same as Db – there's just two different ways of looking at it! Remember, black notes or keys that are to the **RIGHT** of a white note are called **SHARPS** and black notes to the **LEFT** of a white note are called **FLATS**.



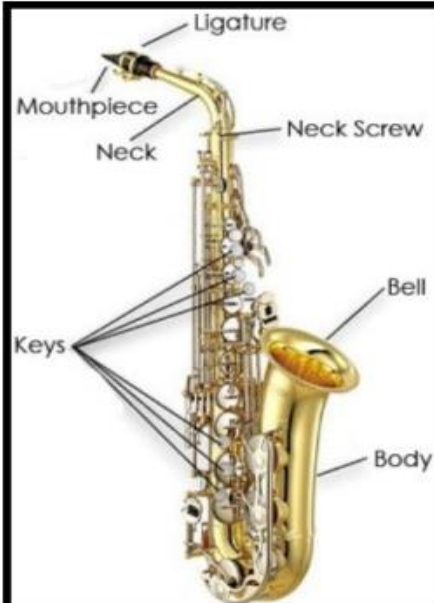


Beginner Saxophone – Autumn Term 'J6'



Key Parts of the Saxophone

- ♦ Pepper Pot
- ♦ Reed
- ♦ Mouthpiece
- ♦ Ligature
- ♦ Neck
- ♦ Body
- ♦ Bell
- ♦ Neck Strap



Name (UK)	Note	Rest	Beat Value
Semibreve			4
Minim			2
Crotchet			1
Quaver			1/2
Semiquaver			1/4



Reed



Pepper Pot,
Ligature, Mouthpiece



Parachute Cleaning
Cloth

12 Bar Blues

E	E	E	E
A	A	E	E
B	A	E	E

Listen to famous Saxophone songs here:



Blues Music





LGBTQ+

Representation – having a voice and a place within society

L – Lesbian

G – Gay

B – Bisexual

T - Transgender

Q – Queer or questioning

+ - The 'plus' is used to signify the gender identities and sexual orientations that are not specifically covered by the other five initials.

Sexual harassment:

it's sexual harassment if the behaviour is either meant to, or has the effect of:

- violating your dignity, or
- creating an intimidating, hostile, degrading, humiliating or offensive environment.

Sexual harassment can include:

- sexual comments or jokes
- physical behaviour, including unwelcome sexual advances, touching and various forms of sexual assault
- displaying pictures, photos or drawings of a sexual nature
- sending emails or messages with a sexual content

#NotAtOurSchool

Follow the QR code to watch more on Remembrance →

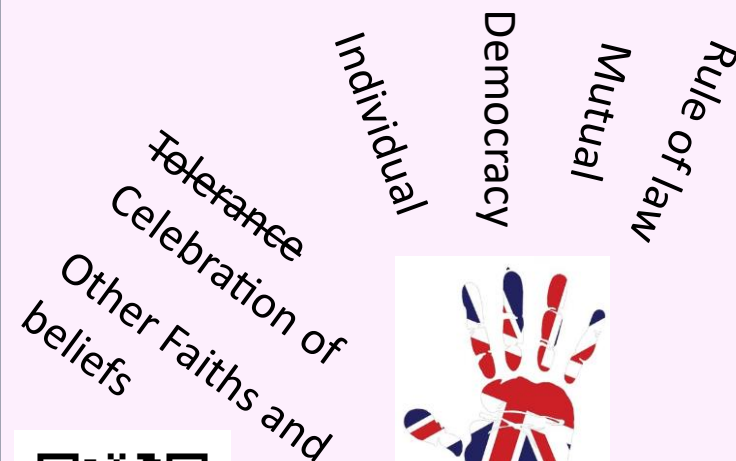


Every year the country comes together for **Remembrance Sunday**.

A period of silence is held at 11am to remember the people who have died in wars around the world.

45

British Values and Extremism



Extremism is the promotion or advancement of an ideology based on violence, hatred or intolerance.

What does ACT stand for?

Use the QR code.

A _____ C _____ T _____

RE

Week 1: Discovering Rastafarianism

Let's talk about how hair can be super special and a way to show who you really are! You know how sometimes you want to wear your favourite shirt, even if it doesn't match your pants? Well, some people feel that way about their hair. **They use their hair to say, "This is me!" even if it's different from what others expect.** In a place called Jamaica, some people started growing their hair in a special way called **dreadlocks. These are long, rope-like strands of hair.** They did this to show they were proud of who they were and that they didn't want to change to make others happy. There was a man named **Benjamin Zephaniah who loved this idea. He wrote poems and stories about being proud of who you are, even if you look different from others.** He thought it was important for everyone to feel good about themselves. Now, think about your own hair. How would you like to wear it to show the world who you are? Maybe you want it to be super long, or bright blue, or stick straight up! Your hair can be like a sign that says, "This is me, and I'm happy being me!" Remember, it's okay to be different. Your hair, just like you, is special and unique. And that's awesome.

What is Rastafarianism? Rastafarianism is a religion and way of life that began in Jamaica in the 1930s. People who follow this religion are called Rastafarians, or Rastas. They believe in living a natural and peaceful life, and they have a deep respect for nature and all living things.

Key Beliefs

- **One God:** Rastas believe in one God, whom they call Jah.
- **Haile Selassie I:** They believe that Haile Selassie I, the former Emperor of Ethiopia, is a divine figure.
- **Peace and Love:** Rastas promote peace, love, and unity among all people.

Symbols and Practices

- **Dreadlocks:** Many Rastas wear their hair in long, twisted locks called dreadlocks. This is a symbol of their faith and a natural way to wear their hair.
- **Reggae Music:** Reggae music, especially the songs of Bob Marley, is very important in Rastafarian culture. The music often talks about their beliefs and hopes for a better world.
- **Ital Food:** Rastas eat natural, healthy foods called Ital food. They avoid processed foods and often follow a vegetarian or vegan diet.
- **Fun Fact:** did you know that the colours red, gold, and green are very important to Rastas? These colours represent the Ethiopian flag and symbolize their connection to Africa.

Week 3: Exploring the Punk Movement

Let's talk about how you can use your hair to show what you believe in! **Imagine your hair is like a big sign that you wear on your head. Some people use their hair to tell others what they think is important or what they want to change in the world.**

People called "punks" made their hair super colourful and spiky. They did this to show they didn't like some of the rules grown-ups made. Sometimes, people grow their hair long or cut it all off to say something important. Long hair might mean "I don't want to follow all the rules," while no hair might mean "I care a lot about this special thing." For some people, their hair is special because of where they come from or what they believe. They might wear their hair in a certain way to show they're proud of who they are.

Now, think about what's important to you. Maybe you don't like it when people are mean to others, or when people don't take care of the earth. **You could use your hair to show that! Maybe you could make it look like a rainbow to show you want everyone to be kind or make it green to show you care about plants and animals.** Remember, your hair is yours to style however you want. It's a fun way to tell the world what you care about without saying a word!

What is the Punk Movement?

The punk movement is a style of music, fashion, and attitude that started in the 1970s. It began in places like the United States and the United Kingdom. Punk is all about being different, expressing yourself, and sometimes challenging the rules.

Key Features of Punk

- **Music:** Punk music is loud, fast, and energetic. Bands like The Ramones and The Sex Pistols are famous punk bands. The songs often talk about freedom and standing up for yourself.
- **Fashion:** Punk fashion is unique and bold. People might wear ripped clothes, leather jackets, and have colourful hair. Safety pins and spikes are also popular accessories.
- **Attitude:** Punk is about being yourself and not worrying about what others think. It's about questioning things and sometimes rebelling against unfair rules.

Fun Fact

Did you know that punk music inspired many other types of music, like alternative rock and grunge? Punk's influence can still be seen in music today!

Week 5: How Our Hair Shows Our Identity sum up all our learning so far.

Did you know that our hair can tell a lot about who we are? People all around the world use their hair to express their culture, beliefs, and personal style. Let's explore how hair can be a part of our identity!

Cultural Significance

- **Traditional Hairstyles:** In many cultures, specific hairstyles are passed down through generations. For example, in some African cultures, braids and cornrows are traditional styles that have been worn for centuries.
- **Ceremonial Haircuts:** Some cultures have special ceremonies for cutting hair. In Hindu culture, the first haircut of a child is a significant event called Mundan.

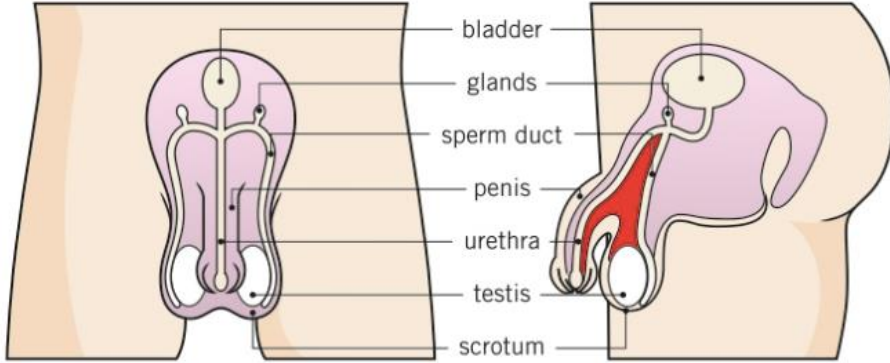
Personal Expression

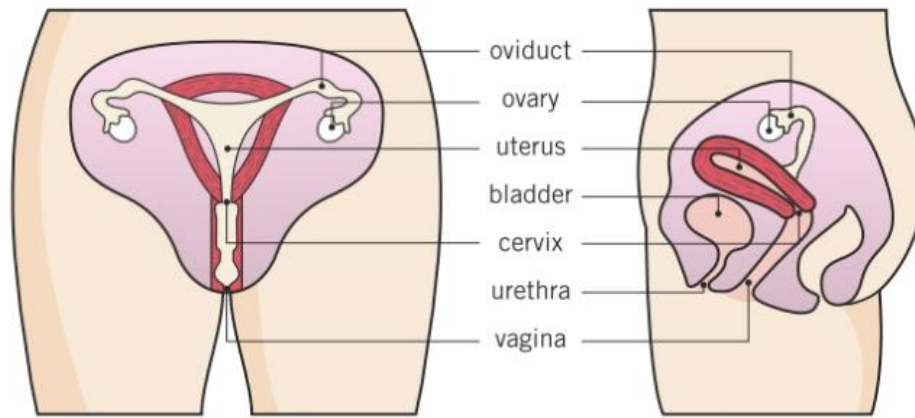
- **Unique Styles:** People often choose hairstyles that reflect their personality. Some might like bright, colorful hair, while others prefer simple, natural looks.
- **Fashion Trends:** Hairstyles can also follow fashion trends. For example, in the 1980s, big, puffy hair was very popular!

Beliefs and Identity

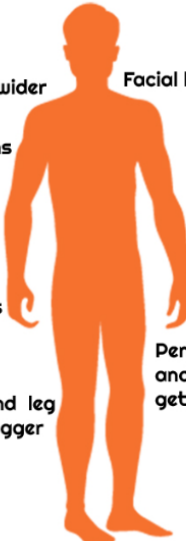

- **Religious Practices:** Some religions have specific rules about hair. For instance, Sikh men wear turbans to cover their uncut hair as a sign of respect and faith.
- **Symbol of Strength:** In some cultures, long hair is seen as a symbol of strength and power. For example, the story of Samson in the Bible tells of a man whose strength was in his long hair.

Fun Fact: did you know that hair can also be a way to show support for a cause? People sometimes dye their hair in bright colours to raise awareness for different issues, like pink for breast cancer awareness.

Week	Essential knowledge	Key Words																					
Week 1	 <table border="1"> <thead> <tr> <th>Male reproductive structure</th><th>Description of structure</th><th>Function</th></tr> </thead> <tbody> <tr> <td>Testes</td><td>oval organs in the scrotum</td><td>produce sperm and the male sex hormones</td></tr> <tr> <td>Scrotum</td><td>bag of skin containing the testes</td><td>keeps the temperature of the testes slightly lower than the rest of the body</td></tr> <tr> <td>Glands</td><td>small structures near the urethra</td><td>add fluid to the sperm to keep them alive</td></tr> <tr> <td>Sperm duct</td><td>muscular ducts about 30 cm long</td><td>carry sperm from the testes to the penis</td></tr> <tr> <td>Urethra</td><td>tube in penis</td><td>carries urine or sperm out through the penis</td></tr> <tr> <td>Penis</td><td>sex organ, cylindrical in shape</td><td>inserts sperm into the female</td></tr> </tbody> </table>	Male reproductive structure	Description of structure	Function	Testes	oval organs in the scrotum	produce sperm and the male sex hormones	Scrotum	bag of skin containing the testes	keeps the temperature of the testes slightly lower than the rest of the body	Glands	small structures near the urethra	add fluid to the sperm to keep them alive	Sperm duct	muscular ducts about 30 cm long	carry sperm from the testes to the penis	Urethra	tube in penis	carries urine or sperm out through the penis	Penis	sex organ, cylindrical in shape	inserts sperm into the female	Penis Vagina Genitals Sperm Egg Testis Sperm Duct Semen Glands Scrotum Ovary Oviduct Uterus Cervix
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Female reproductive structure	Description of structure	Function
Ovaries	pair of small, oval-shaped glands, either side of the uterus	store and release eggs
Oviduct	tube connecting ovary and the uterus	carries the egg to the uterus
Uterus	hollow, pear-shaped organ, with a thick lining	where a fetus/baby develops until birth
Cervix	ring of muscle at the entrance to the uterus	keeps the fetus/baby in place
Vagina	muscular canal ending at the cervix	receives the sperm during sexual intercourse
Urethra	tube from bladder	carries urine out of the body

<p>Week 2</p>	<div data-bbox="427 154 972 791"> <p>MALE</p>  <p>Diagram of a male figure with labels for puberty changes: Skin gets oilier, Shoulders get wider, Facial hair, Hair under the arms, Pubic Hairs, Neck, chest and leg muscles get bigger and Stronger, Penis get longer and wider and testes get larger.</p> </div> <div data-bbox="1099 199 1615 791"> <p>FEMALE</p>  <p>Diagram of a female figure with labels for puberty changes: Whole body gets Curvier, Skin gets oilier, Breasts starts to develop, Hair under the arms, Hip bones wider, Weight gain on hips, leg muscles get bigger and stronger, Pubic hairs.</p> </div> <p>Changes during puberty- to include:</p> <ul style="list-style-type: none"> • pubic hair • changes in body shape • voice deepening • causes of acne, body odour linked to need for hygiene <p>Hormones controlling these changes (Oestrogen and Progesterone in females and testosterone in males.)</p>	<p>Hormone Puberty Adolescence Menstrual Cycle Menopause Oestrogen Progesterone Testosterone</p>
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In the female, one of the ovaries produces an egg every 28 days. This is called **ovulation**.

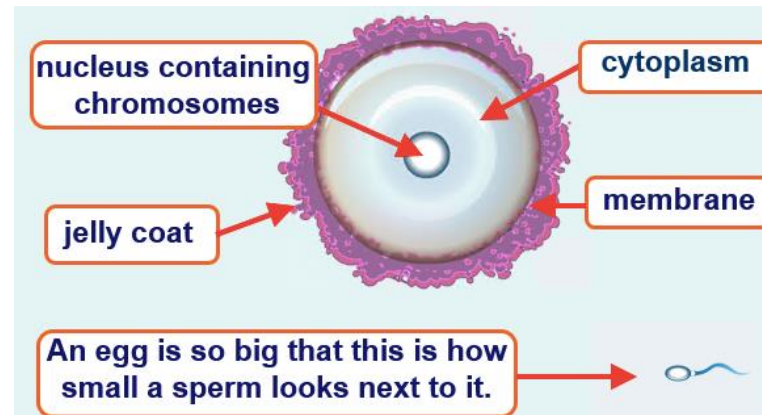
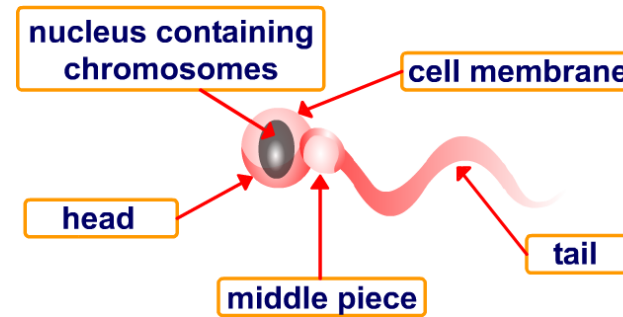
During sexual intercourse millions of sperm are **ejaculated** into the vagina during sexual intercourse. If a sperm meets the egg, the sperm's nucleus can join with the egg's nucleus. This fusing of the nuclei is called **fertilisation**.

Fertilisation-

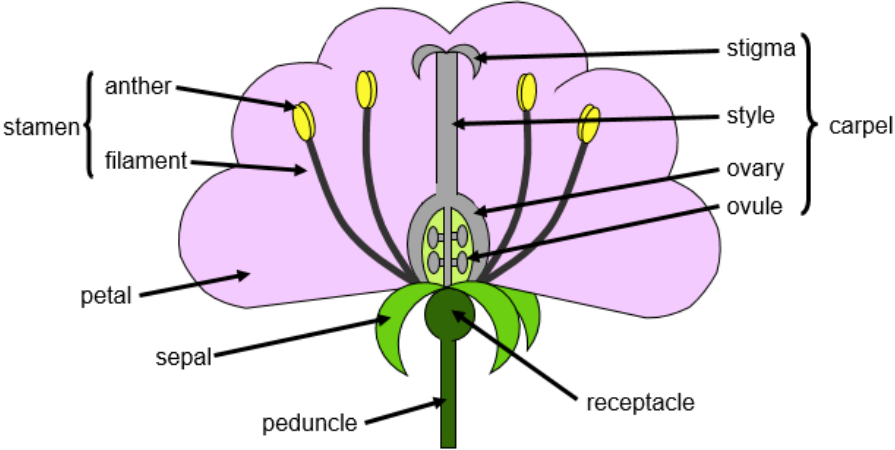
- Haploid gametes (sperm and egg) fuse to form a diploid zygote
- The acrosome in the sperm breaks down jelly coat/membrane in the egg.
- Eggs coat hardens to prevent double fertilisation.
- Zygote starts to divide to form an embryo.

Haploid cells – contain half the number of normal chromosomes

Diploid cells - contain the full number of chromosomes.



Fertilisation
Haploid
Diploid
Gamete
Zygote
Sexual intercourse
Ovulation
Ejaculation

	<p>The menstrual cycle:</p> <p>An important part of puberty for girls is the beginning of their monthly cycle. This is known as the menstrual cycle.</p> <p>The menstrual cycle involves the preparation of the uterus lining so that it is able to receive a fertilised egg.</p> <p>If an egg is fertilised, it can implant itself in the prepared uterus lining.</p> <p>If it is not fertilised, the lining of the uterus breaks down and is lost from the body. This is called menstruation or a period.</p> <ul style="list-style-type: none"> • Day 1-7 - Uterus wall breaks down, the woman bleeds, this is a period. • Day 7-13 - Around day 7 the blood flow stops. Uterus wall builds up again. An egg matures in the ovaries • Day 14 - On the 14th day, the egg is released from the ovary (ovulation) • Day 14-17 - Egg travels down the oviduct, It can last for around 3 days. If it meets a sperm in the duct, it becomes fertilised • Day 18-28 - If the egg is not fertilised, the uterus wall breaks down and the cycle starts again. 	
<p>Week 4</p>	<p>Plants can reproduce with either sexual or asexual reproduction</p> <ul style="list-style-type: none"> • ASEXUAL REPRODUCTION means that the organism makes an exact copy of itself (a clone) • FLOWERING PLANTS reproduce sexually. Sex cells (gametes) fuse together (fertilisation) <p>Flower structure to include the:</p> <ul style="list-style-type: none"> • Stigma and stamen • Stamen • Ovary • Anther and filament • Petals and sepals 	 <p>Stigma Stamen Style Ovary Pollen tube Sexual Asexual Anther Pollen Pollination</p>

Pollination is the transfer of pollen from anthers to stigmas.

This must occur before a male sex cell can fuse with a female sex cell. Methods of pollination:

- Bees/ insects
- Wind/ water
- Artificial

Fertilisation

- Once pollen has landed on the stigma.

Dispersal of seeds

Method	Description of seeds
Wind Dispersal	Light - blown and spread by the wind
Animal dispersal	Either eaten by animals and egested in droppings Or have hooks to cling to fur of animals
Water dispersal	Contain air spaces to help them float
Self-dispersal	Fruit walls of plants simply dry out and burst. Split ovary scatters seeds explosively.

Structure	Function
Petals	Large, brightly coloured to attract insects (small, green or brown if plant is wind pollinated)
Sepals	Small, green, leaf-like structures to protect flower in bud
Stamens	Male parts of the flower
Anther	Produces lots of small pollen grains - contain male gametes
Filament	Attaches the anther to the flower
Carpel	Female part of the flower
Stigma	Where pollen lands during pollination
Style	Transports the male sex cell to the ovary
Ovary	Produces small number of large ovules - female gametes. Ovary often forms the fruit once ovules are fertilised.

- The male gamete travels down the style towards the ovary
- The gametes fuse in the ovary – fertilisation!

Seed formation

After fertilisation the fertilised ovule divides into many cells to form a seed. The seed develops a thick tough outer coat for protection.

Seeds can be dispersed by:

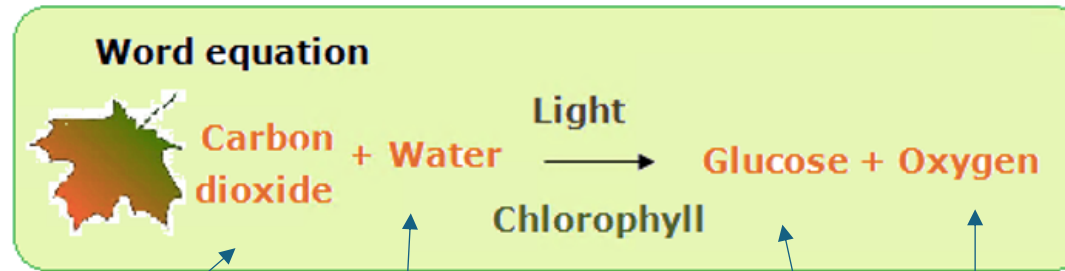
- Wind
- Animals
- Water
- Self dispersal
- Self-dispersal

Week 5

Autotrophs – produce their own food e.g. plants
Heterotrophs – cannot produce their own food.
They need to eat e.g. us!

Photosynthesis is a chemical reaction that happen in the chloroplasts of plant cells.
Plants need light in order to photosynthesise

Photosynthesis is the chemical reaction that plants use to make glucose (their food).



Diffuses into leaves

Absorbed by roots

Light – from the sun

Chlorophyll – pigment found in chloroplasts

Used in respiration

Stored as starch

Diffuses out of leaves

Autotroph
Heterotroph
Photosynthesis
Glucose
Starch

Week 6

Variation – differences in characteristics. These differences can be environmental or genetic/inherited.

Continuous vs discontinuous variation

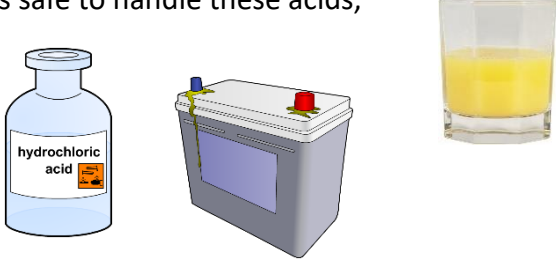



Continuous variation are those which can have any value within a range e.g. height and mass

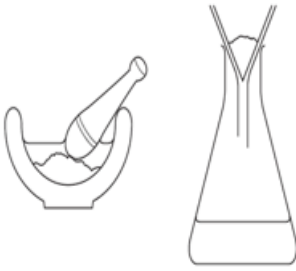
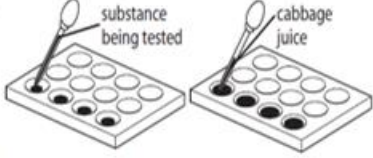
Discontinuous variation are those which have distinct groups e.g. hair colour, eye colour, blood group

Inherited Variation	Environmental Variation	A Mixture of Both
Eye colour	Hair length	Weight
Ear lobes	Sun tan	Intelligence
Blood group	Tattoo	Height
Inherited diseases	Ear piercing	Speed at running

Inherited characteristics never change.

Environmental
Genetic
Continuous
Discontinuous
Variation
Genes
Inherit
Mutation
Characteristic

Week	Essential knowledge	Key Words
<p>Week 1</p>	<p>Weak acids: Some acids are found in everyday items such as food and drink, and skincare products. It is safe to handle these acids, and in some cases even to taste them e.g. orange juice, vinegar, lemon.</p>  <p>Strong acids: Some acids, like those found in the laboratory or a car battery, are too dangerous to taste or touch. These acids are said to be corrosive as they can damage other materials by wearing them away e.g. hydrochloric acid, sulfuric acid, battery acid.</p>  <p>Neutral substances: are neither acidic nor alkaline e.g. pure water</p> <p>Weak bases/alkalis: Alkalis are substances that are chemically the opposite of acids. Weak alkalis are found in soaps and other cleaning materials. They are also used in antacids to treat indigestion.</p>  <p>Strong bases/alkalis: Some alkalis, like those used in laboratories, or in cleaning materials such as bleach, are too dangerous to touch. These alkalis are said to be caustic because they can burn skin, and damage other materials.</p>  <p>Indicators are used to identify whether a substance is acid, alkali/basic or neutral. Universal indicator and the pH scale used to identify acids and bases. Universal indicator changes colour when added to a substance, this colour is then compared to the pH scale</p> <div data-bbox="557 1312 1670 1543"> <p>Acidic Neutral Alkaline</p> <p>0 1 2 3 4 5 6 7 8 9 10 11 12 13 14</p> </div> <p>pH scale</p> <div data-bbox="1774 1312 2258 1801"> <p>pH 0-6 = acidic pH 7 = neutral pH 8-14 = basic/alkaline</p> </div>	<p>Acid Alkali Base Neutral Indicator pH scale</p>

<p>Week 2</p>	<p>pH indicators identify if a substance is acidic or basic.</p> <p>Litmus paper as an example of a pH indicator. Colour changes of red, blue and yellow litmus paper in acids and bases.</p> <p>Making and using red cabbage indicator!</p> <div data-bbox="557 405 866 436"> <p>Part 1: Making the indicator</p> </div> <div data-bbox="557 457 1344 898"> <div> <p>Apparatus</p> <ul style="list-style-type: none"> • mortar and pestle • filter paper and a filter funnel • red cabbage leaves </div> <div> <ul style="list-style-type: none"> • boiling tube or conical flask • hot water </div>  <p>Method</p> <p>A Put some red cabbage leaves into the mortar.</p> <p>B Add a little hot water.</p> <p>C Grind up the leaves so that you get as much of the colour out as possible.</p> <p>D Filter the mixture and collect the liquid in a tube or flask.</p> </div> <div data-bbox="1418 422 1715 453"> <p>Part 2: Using your indicator</p> </div> <div data-bbox="1418 464 2193 888"> <div> <p>Apparatus</p> <ul style="list-style-type: none"> • red cabbage juice • dropping pipette </div> <div> <ul style="list-style-type: none"> • spotting tile • substances to test </div> <div> <p>Wear eye protection. Nothing should be tasted, not even food and drink.</p>  </div> <p>Method</p> <p>A Put one of the substances into a circle on the spotting tile. Write the name of the substance in a table.</p> <p>B Add a few drops of your cabbage juice.</p> <p>C Write the colour in your table.</p> <p>D Do this again with another substance.</p> </div>	<p>Indicator Litmus paper Filter</p>
<p>Week 3</p>	<p>Identification of different reactions including:</p> <p>Reaction 1: Metals and acids</p> <p>General equation: Metal + acid --> Salt + hydrogen</p> <div data-bbox="522 1241 1288 1711"> <p>Reaction of metal (calcium) and acid (hydrochloric acid)</p> <p>General equation</p> <div> <p>metal + acid → salt + Hydrogen</p> </div> <p>Example:</p> <div> <p>Calcium + Hydrochloric acid → Calcium Chloride + Hydrogen</p> </div> </div> <div data-bbox="1424 1318 2202 1740"> <p><u>Naming salts</u></p> <p>The first part of the name comes from the metal.</p> <p>The second part comes from the acid:</p> <p>Hydrochloric acid makes chlorides</p> <p>Nitric acid makes nitrates</p> <p>Sulphuric acids make sulphates</p> </div>	<p>Reaction Reactants Products Combustion</p>

Test for hydrogen: Squeaky pop test! Place a lit splint over the gas. If there's a squeaky pop sound it is hydrogen

squeaky pop test

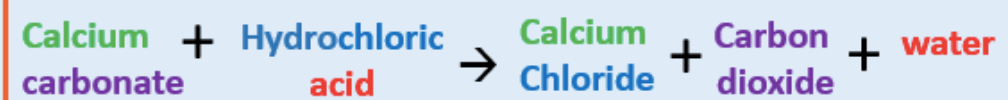


Reaction 2: Metal carbonates and acid

General equation: Metal carbonate + acid --> salt + carbon dioxide + water



For example the reaction between hydrochloric acid and calcium carbonate (marble).



Test for carbon dioxide:

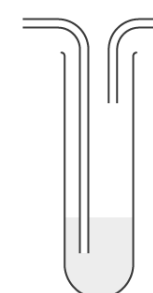
Bubble gas through limewater. If the limewater turns from colourless to a cloudy/milky colour. The gas is carbon dioxide.

Reaction 3: Combustion

General equation: Fuel + oxygen --> Water + carbon dioxide

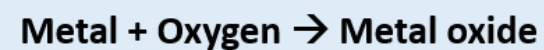


limewater test



Reaction 4: Metals and oxygen

Metal + Oxygen --> Metal oxide

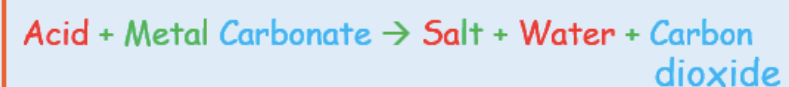
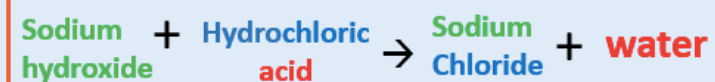
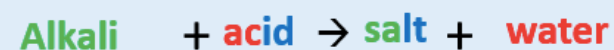


Metals react with oxygen to form metal oxides.

Fireworks are really big combustion reactions. In a combustion reaction a fuel reacts with oxygen from the air.

Reaction 5: Neutralisation reactions

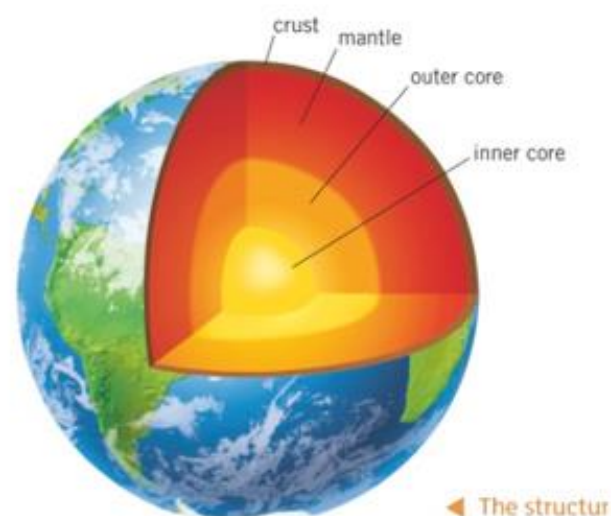
Acid + Base → Salt + water



Alkalis are soluble bases. When they react with acid they form water and a salt.

Week 4

Structure of the Earth includes the: Inner core, outer core, crust, mantle.



Crust	This is the outer layer, it is between 8km and 40km thick.
Mantle	This is made mostly of solid rock, but it can flow. Hotter rock rises and cooler rock sinks.
Outer core	This consists of mainly iron and nickel. It is liquid
Inner core	This consists of mainly iron and nickel. It is solid

Crust
Mantle
Tectonic
Destructive
Constructive
Magma
Molten

Plate tectonics

The Earth's surface is made up of large plates (like pieces of a jigsaw).
These plates are constantly travelling at a few centimetres per year.
The ocean floors are spreading from the centre and sinking at the edges.

Plate movements can be:

Destructive - A destructive plate boundary is where two plates push against each other causing violent earthquakes, volcanoes and mountain ranges to be formed.

Constructive - Two plates move away from each other.

Molten rock (magma) rises from the mantle to fill the gap between the two plates.

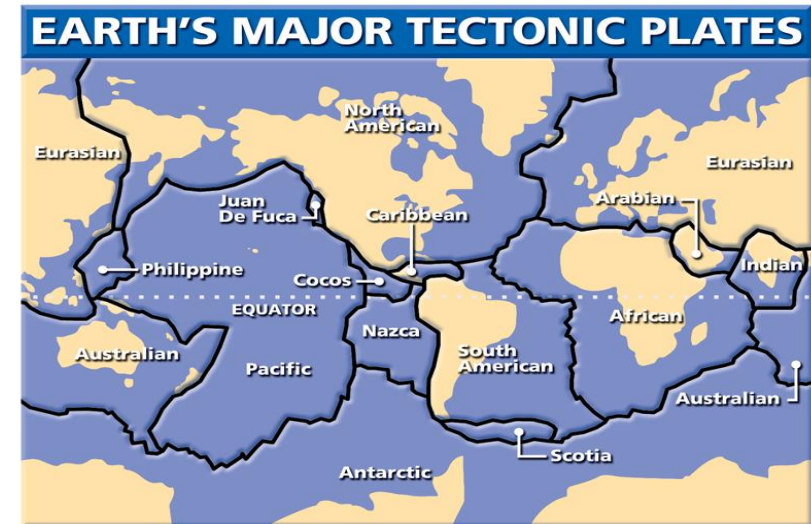
Causes volcanoes and earthquakes but also forms mid-ocean ridges that develop into islands.

Conservative - two move along side each other

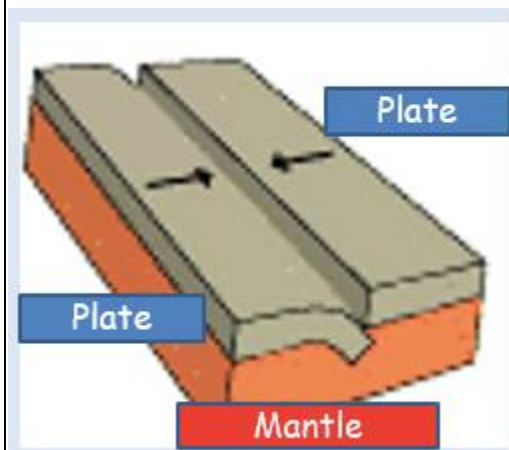
Causes earthquakes, which can be fairly violent and frequent.

Two plates slide past each other, without creating or destroying any land.

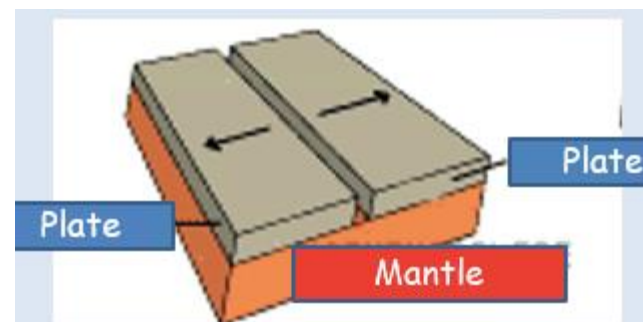
As they move past each other they often get stuck, building up great pressure until finally they jolt past each other. This sudden movement is what causes earthquakes.



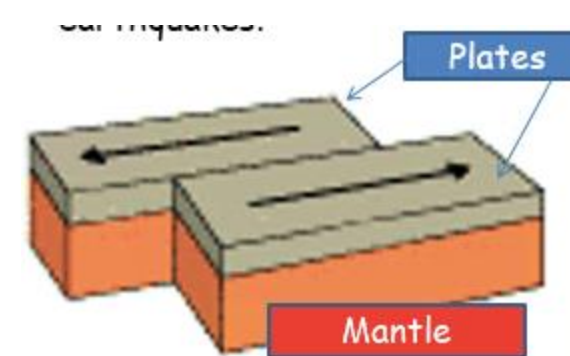
Destructive

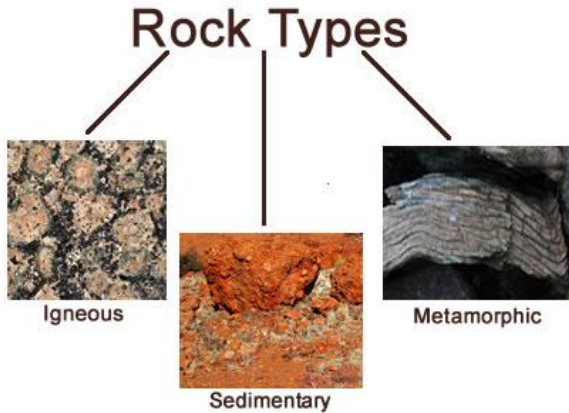
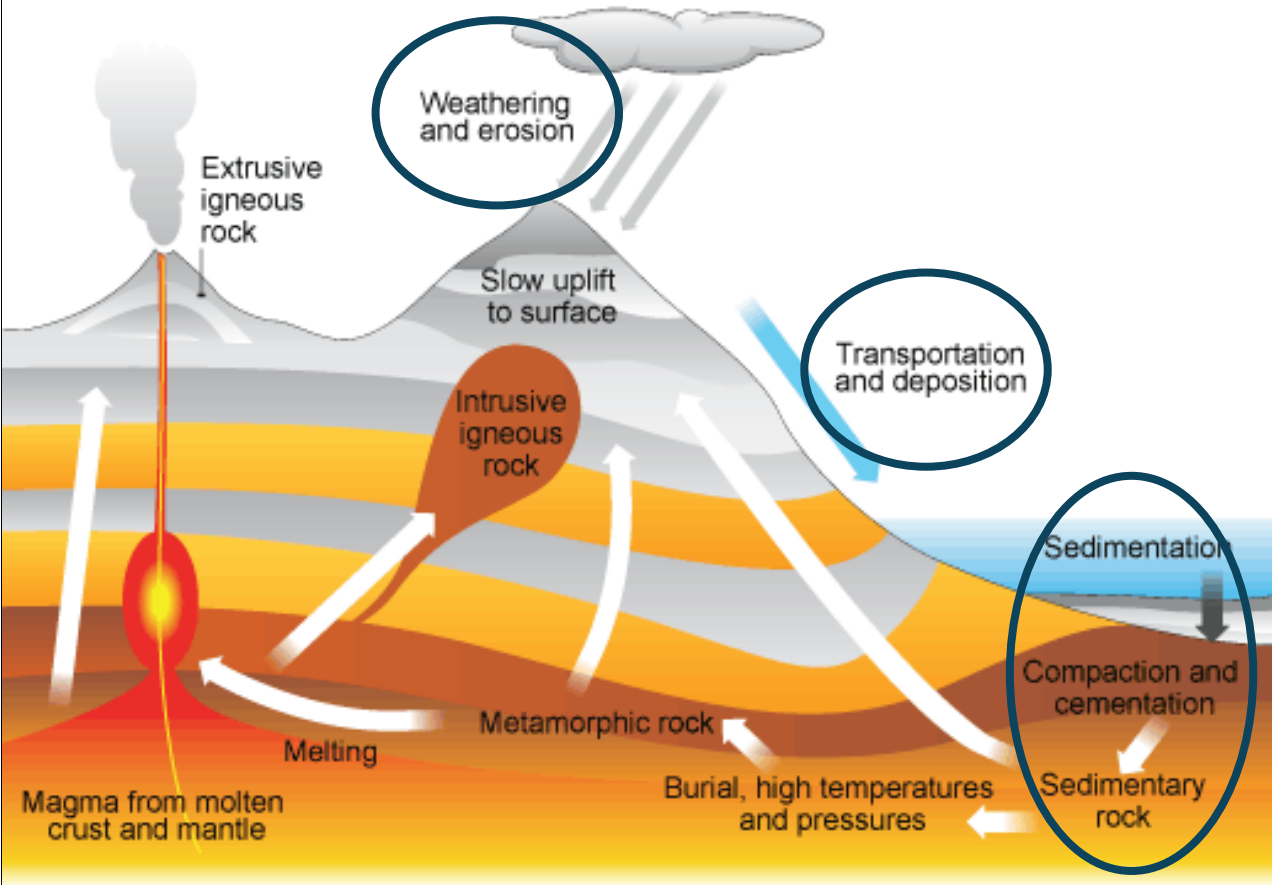


constructive



Conservative



<p>Week 5</p>	<p>Rocks can be identified by their grains, size, shape, crystals, texture, minerals, permeability, whether they are porous or not.</p> <p>Types of rocks include:</p> <p>Igneous – formed from hot lava or magma cooling</p> <p>Sedimentary – formed from layers of sediment</p> <p>Metamorphic – formed from igneous or sedimentary rocks under high temperature and pressure.</p>	<p>Rock Types</p> 	<p>Sedimentary Metamorphic Igneous Permeable Porous Crystals Lava</p>
<p>Week 6</p>	<p>Sedimentary rock formation:</p>  <p>Fossils as the 'remains of once living animals or plants.' They are found in sedimentary rocks</p> <p>Two main types of fossil:</p> <p>Body fossil - fossilised remains of a plant or animal e.g. a bones, shell, leaves.</p> <p>Trace fossil - record an activity of an animal e.g. footprints, trackways, coprolites.</p>	<p>Weathering and erosion – bits of rock are broken off. This can be through chemical, physical or biological weathering.</p> <p>Transportation and deposition – small parts of rocks (sediment) are transported away and deposited into the ocean</p> <p>Sedimentation – sediment settles to the bottom of the ocean</p> <p>Compaction and cementation – over many years the sediment gets compacted under the high pressure.</p>	<p>Transportation Deposition Sedimentation Fossil</p>

Body fossils show us what a plant or animal looked like. They are the fossilised remains of an animal or plant, like bones, shells and leaves.



The fossilised dinosaur skeletons and big bones we see, petrified wood and whole body fossils (mammoths caught in ice or insects trapped in amber) are all body fossils.

Fossils can give information about how long ago a plant/animal lived.

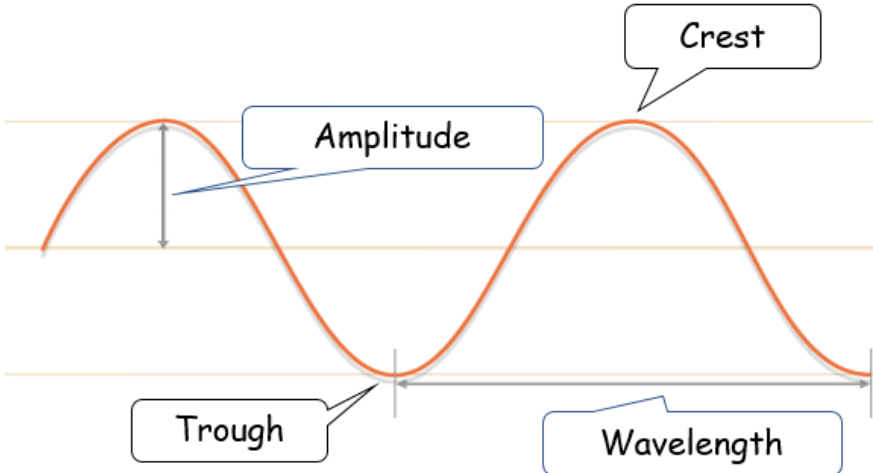
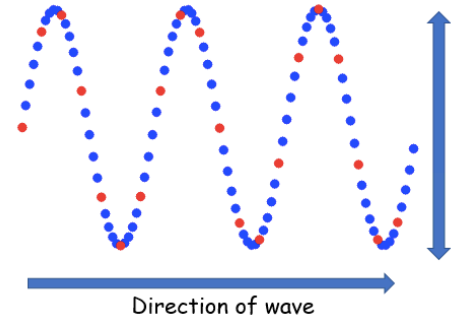
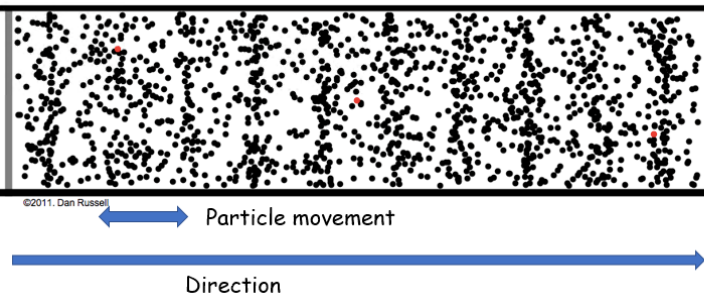
Fossil records can show how an organism has evolved over time

The fossil record is not complete!

People who study fossils are called palaeontologists.

Trace fossils record the activity of an animal. These include footprints, trackways, and coprolites (fossil poo!).



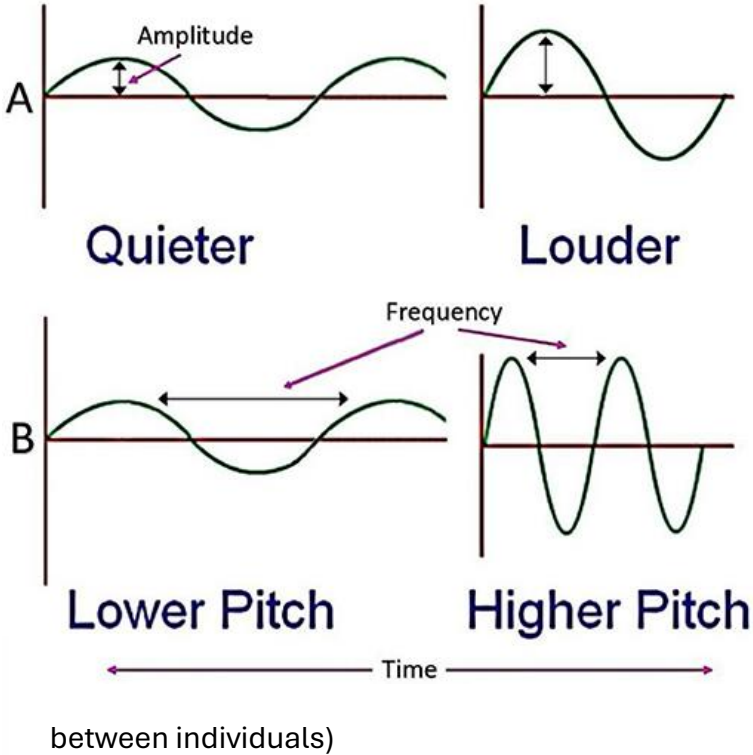
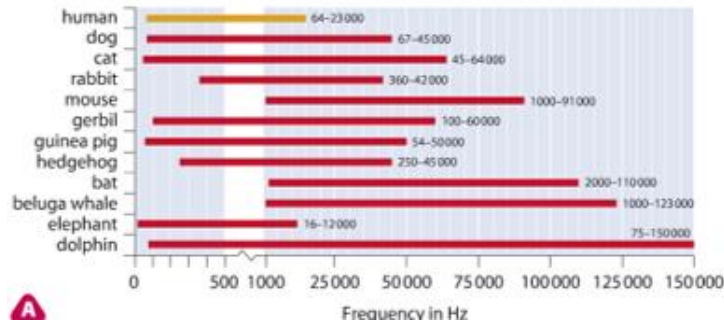
Week	Essential knowledge	Key Words
Week 1	<p>A wave is the transfer of energy with no overall transfer of matter</p> <p>There are 2 different types of wave.</p> <p>1. Transverse waves</p> <p>In transverse waves particles vibrate up and down. The direction the wave is from left to right. Therefore, transverse waves are defined as ‘a wave where particles travel at a right angle to the of the wave.’</p> <p>Examples of transverse waves include: Light waves, water ripples, x-rays, radio waves, microwaves.</p> <p>2. Longitudinal waves</p> <p>In longitudinal waves particles vibrate back and forth, the direction of the wave goes from left to right. Therefore, longitudinal waves are defined as ‘a wave where particles move parallel to the direction of the wave.’</p> <p>Examples of longitudinal waves Sound waves, seismic waves (shock waves from earthquakes)</p> <p>Labelling a transverse wave:</p>  <p>Frequency is the number of complete waves per second. Frequency is measured in hertz (Hz).</p> <div><p>Transverse waves...</p><p>.. Particles move at a right angle to the direction of the wave.</p><p>Particle movement</p><p>Direction of wave</p><p>of direction</p><p>Longitudinal waves</p><p>.. Particles move parallel to the direction of the wave.</p><p>Particle movement</p><p>Direction</p><div><p>Crest – highest point in a wave</p><p>Trough – lowest point in a wave</p><p>Amplitude – distance from the centre line to a crest or trough (measured in metres)</p><p>Wavelength – length of one full wave (easiest to measure from one peak to the next. Or from one trough to the next (measured in meters).</p></div></div>	Longitudinal Transverse Amplitude Wavelength Crest Trough Transfer Matter

Sounds are made by something **vibrating**.
The vibrations push the air particles, these particles then collide with (bump into) neighbouring particles, passing along the sound wave.

- Examples:
- When you speak, vocal cords vibrate.
 - When you play a guitar, the strings vibrate.
 - When a tuning fork is tapped, the prongs vibrate to make a note.

Amplitude (m) – shows the intensity (loudness) of the sound.
The bigger the amplitude, the louder the sound.
Wavelength (m) – shows the pitch of the sound.
The shorter the wavelength the higher the pitch of the sound.

Different animals can hear different frequencies of sound.
Humans have a hearing range between 20Hz to 20,000Hz (although this can vary



Volume
Pitch
Frequency
Vibrations
Collisions

Week 2

The speed of sound in air 340 m/s
Sound travels at different speeds through different types of material. Sound travels fastest in solids as the particles are close together so particles can easily collide and pass on the vibrations. Sound travels slowest in gases because the particles are very spread out.

Particles in a **solid** are very close together. They are held together with strong bonds. Sound vibrations can move very quickly through solids because the particles are close to each other and bump into each other often. It is easy for the vibrations to be passed on.

Particles in a **liquid** are close together. They are able to move about. Sound vibrations move more slowly than in a solid because the particles are a bit further apart and do not bump into each other quite as often.

In a **gas** the particles are very far apart. They can move easily in all directions. The particles do not bump into each other very often, so it is more difficult for vibrations to be passed on. Sound vibrations travel more slowly in a gas than they do in solids and liquids.

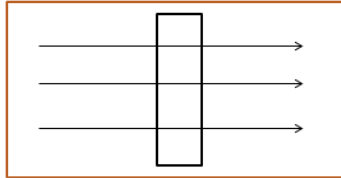
Remember sound waves are longitudinal waves.

Week 3

Luminous sources are objects that give off light. **Non-luminous** do not give off light.

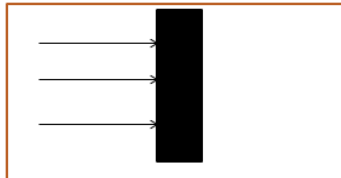
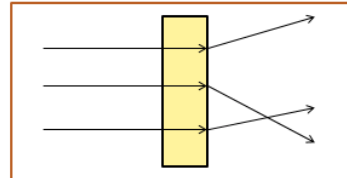
Light travels in rays. Light travels from the luminous objects to a

Objects can be **transparent**, **translucent** or **opaque**.



Transparent – these are materials which let all of the light straight through.

Translucent – these materials let light through but it is randomly scattered.

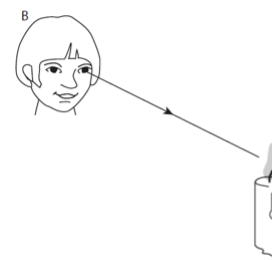


Opaque – these materials let no light through.

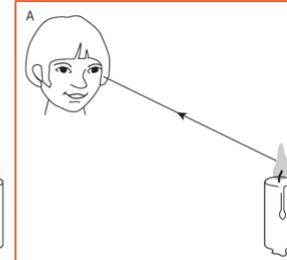
Examples:

Transparent	Translucent	Opaque
Clear glass	Frosted glass	Wood
Wine glass	Tracing paper	Book
Air	Cling film	Brick
Clean water	Marble	Steel
		Pencil

The Direction of Light



Scientists used to think the light shone out of our eyes.



We now know that light travels into our eyes from a **luminous** source as rays.

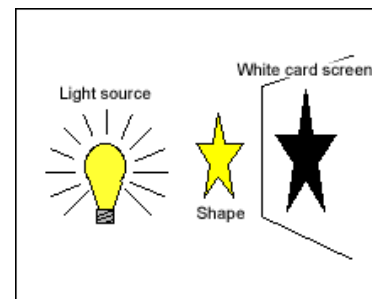
objects

Arrows are always needed on light rays to show the direction light is

Source
Opaque
Translucent
Transparent
Luminous
Reflection
Scattering
Shadow

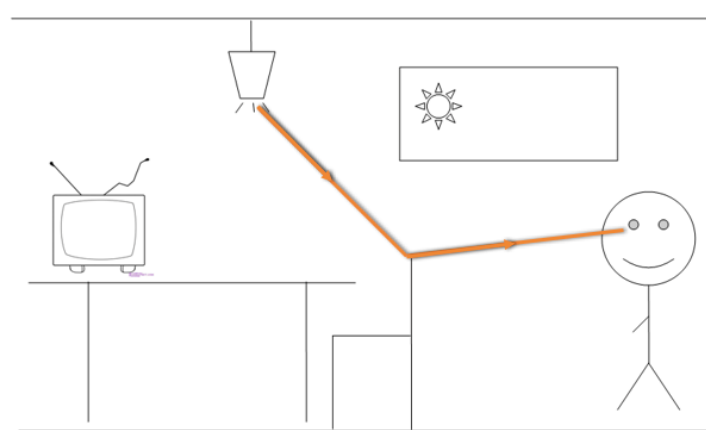
Shadows form behind opaque objects because light cannot travel through them. **Light travels in a straight line** so cannot bend around them.

Shadows are the absence of light.



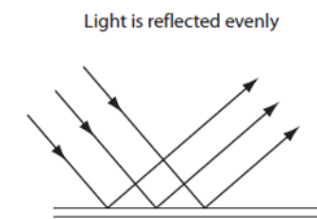
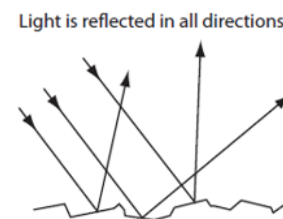
Light travels at approximately 300,000,000m/s!

Remember light is a transverse wave.



Light from luminous sources bounces off (reflects off) opaque objects. Meaning we can see them:

Light scatters in different directions when it reflects off rough surfaces. A mirror has a very smooth surface so it reflects light evenly.



Week 4

Heat can transfer by **conduction**, **convection** or **radiation**.

1. Conduction

An object that easily allows heat to pass through is known as a good **thermal conductor** e.g. copper, aluminium (metals)

An object that does not easily allow heat to pass through is known as a **thermal insulator** e.g. plastic, wood, rubber.

Heat transfers by conduction through solid conductors. When particles in solid conductors are heated the energy transferred causes the particles to vibrate faster (gain kinetic energy).

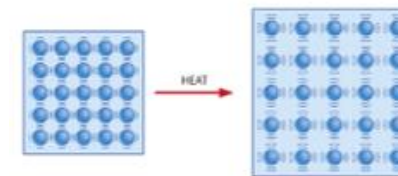
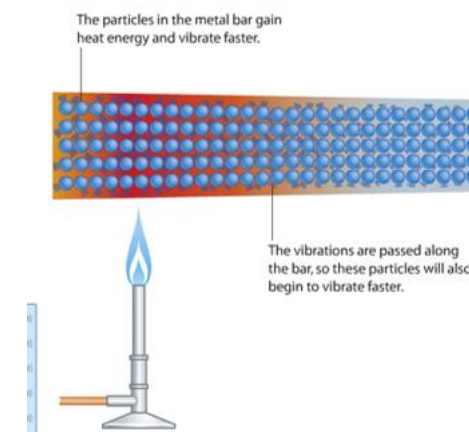
As the particles vibrate they collide into the particles next to them, causing the energy to pass through the solid.

Air is a poor conductor because particles in gas are spread out. Therefore, it's hard for the particles to collide and pass on the vibrations.

Metals also expand when they are heated..

As the particles vibrate more, they need more space to move around in and so the solid will expand. When a solid expands it has the same mass but it takes up more space. Its density will decrease.

Heat energy is also known as thermal energy.

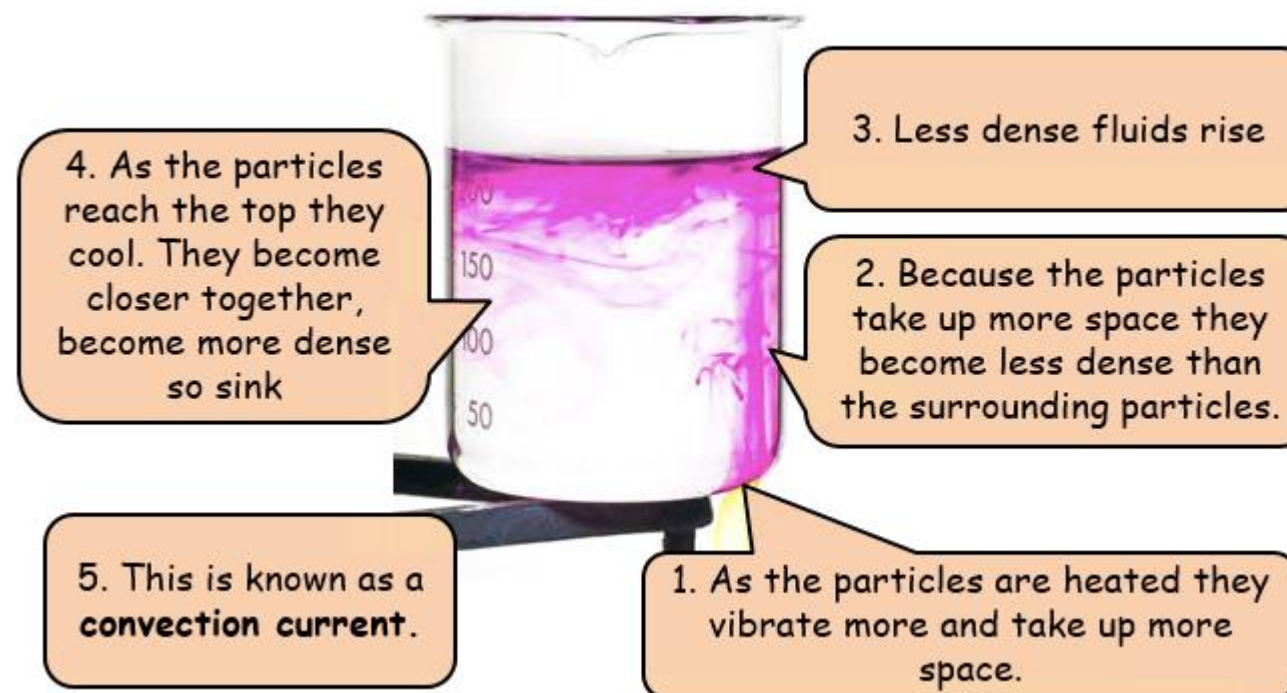


2. Convection

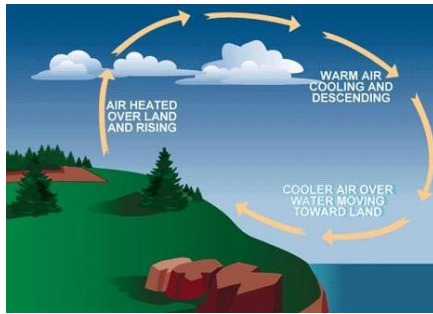
Heat cannot travel by conduction well through fluids (liquids and gases).

Heat transfers through fluids by **convection**.

Example:



Conduction
Convection
Radiation
Particles
Vibrate
Collide
Heat
Thermal

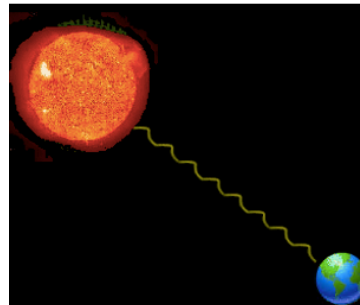


3. Radiation

Thermal radiation does not require particles, it transfers heat via a wave (**infrared**). We can't see infrared only feel it as heat.

All hot objects emit infrared radiation – including us!

Special infrared cameras can sense this infrared energy, and produce a picture for us see.



- There are no particles in space (it is a vacuum) so conduction and convection won't work
- Heat from the sun travels via infrared radiation



to

When radiation hits something, it can be absorbed or reflected.
Light coloured, shiny materials reflect the most radiation.
Dull, dark, matt objects absorb the most radiation

Week 5

Energy is defined as “something that is needed to make things happen or change”
Energy is always measured in **Joules (J)**




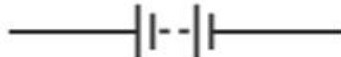






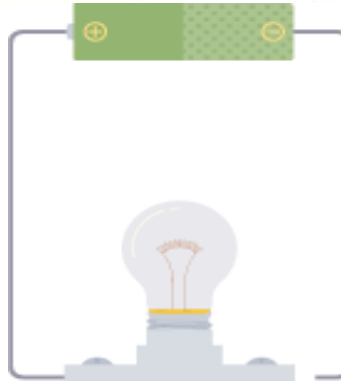
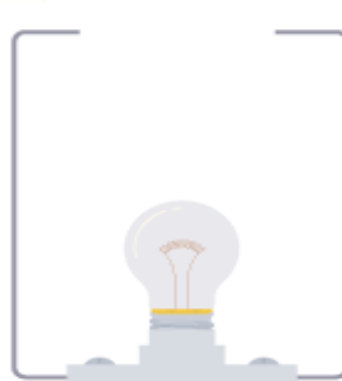
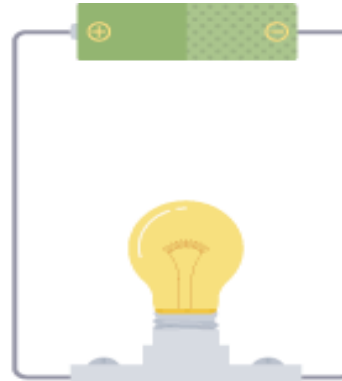
Energy stores include:

- Chemical (e.g. stored in fuels, foods, batteries)
- Kinetic (stored in anything that is moving)
- Thermal (stored in anything hot)
- Strain/Elastic potential (stored in stretched springs, or stretched elastic objects)
- Gravitational potential (stored in anything above ground level)
- Nuclear (stored in the nucleus of atoms)

The law of conservation of energy:

Energy cannot be created or destroyed it can only be stored or transferred.

Energy
Store
Transfer
Potential

	<p>Energy transfers include:</p> <ul style="list-style-type: none">• Mechanical (transferred when a force makes something move)• Heating (transferred via conduction, convection and radiation – see next lesson)• Light (Transferred by anything giving off light)• Sound (Transferred by anything giving off sound)• Electrical (Transferred where there is electricity e.g. around a circuit)	<p><u>Energy transfer diagrams</u></p> <p>When processes happen energy can be transferred from one form to another.</p> <p>This can be shown on an energy transfer diagram.</p> <div><p>Chemical → Electrical → Light</p></div>	
Week 6	<p>Electrical energy is transferred around circuits. The most basic circuits consist of a power source, wires and other components (like a bulb)</p> <p>To make it easier for us to draw circuits we use circuit symbols. Some are shown below:</p> <div><div><p>Switch</p></div><div><p>Cell</p></div><div><p>Battery</p></div><div><p>Lamp</p></div><div><p>Voltmeter</p></div><div><p>Ammeter</p></div><div><p>Resistor</p></div><div><p>Variable resistor</p></div><div><p>Motor</p></div></div> <div><p>Three basics things are needed for a working circuit:</p><ol style="list-style-type: none">1. Power source2. No gaps – complete circuit3. Conductors</div> <div><div><p>Incomplete circuit</p></div><div><p>No battery</p></div><div><p>Complete circuit</p></div></div> <p>In physics a cell is a single unit that stores chemical energy – what we would normally call an individual ‘battery.’ Two or more cells is known as a battery.</p>	Electricity Conductor Insulator Battery Circuit	

