

YEAR 5 SCIENCE – LIVING THINGS AND THEIR HABITAT KNOWLEDGE ORGANISER



What have we learnt in this topic before and what we will learn this year?

Year 2 - we compared things that were living, dead or never been alive and describe how animals and living things meet their basic needs.

Year 4 - we recognised how animals can be grouped and recognise how the environment changes (sometimes posing danger to living things). We looked at the work of Jane Goodall.

Year 5 - we're describing differences in life cycles of different types of animals. We are also describing the life process of reproduction in some plants and animals. We will look at the work of Sir David Attenborough.

Year 6 - we'll describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences (micro-organisms, plants and animals) and give reasons. We will learn about Carl Linnaeus' system of naming and classifying organisms.

REPRODUCTION

Reproduction is the process by which a living thing produces offspring. Most plants and animals reproduce through sexual reproduction. Some plants can reproduce through asexual reproduction.

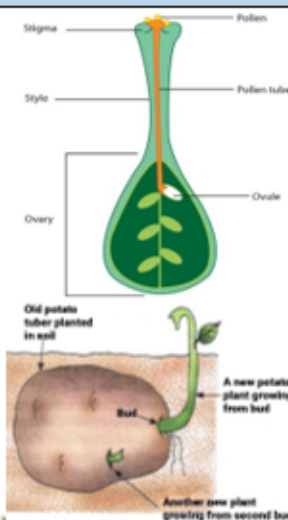
Reproduction in Animals

This involves the coming together of female and male cells. The female egg contains half the information and the male cell provides the other half of the information. When the two join together, this is called fertilisation. The offspring then starts to grow and develop. Some animals grow their offspring inside the mother's womb and other animals lay eggs which grow the offspring.

Reproduction in Plants

The stigma produces pollen, and this must meet and join with the ovule for fertilisation to occur. This happens through pollination. Some plants use the wind to distribute pollen, while others rely on insects. Once a flower has been pollinated, the pollen grain grows a tube down to the ovary where it fertilises a female ovule. This fertilised ovule then develops into a seed, and the ovary swells and turns into a fruit.

Asexual reproduction involves only one cell creates genetically identical offspring. It enables a rapid increase in population. For example, plants such as strawberries can grow a horizontal extension called "runners" which lay roots creating a new plant that is genetically identical. Potatoes grow buds which can grow new plants.



FOCUS SCIENTIST



Sir David Attenborough (8 May 1926 – present)

Sir David Attenborough, famous for his presentation of many BBC nature specials, has contributed enormously to our knowledge of living things and their habitats – the discovery of species, understanding of animal behaviour and observation of plant growth.

Whilst filming 'The Life of Mammals', David Attenborough filmed inside a platypus nest for the first time and captured the first ever images of a baby platypus sucking milk. This was significant because the platypus is one of only five monotreme species (duck-billed platypus and four species of echidna, also known as spiny anteaters). These animals are mammals but lay eggs rather than having live birth.

LIFE CYCLES

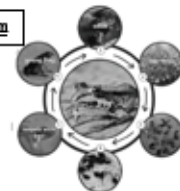
All living things go through a series of developmental stages known as a life cycle. In a typical animal life cycle, an egg is fertilised to produce offspring, and the offspring gradually grows and develops into an adult that is able to produce sperm or eggs.

Some life cycles are very short (developing from fertilisation to adulthood to reproduction in a matter of days or weeks). Other life cycles, such as that of the oak tree, can run for decades or even hundreds of years.

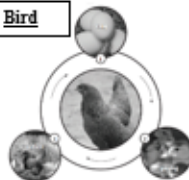
Mammal



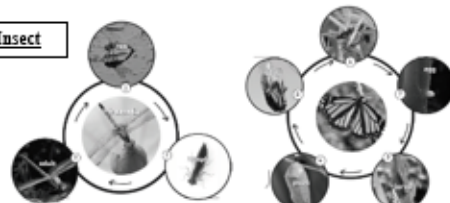
Amphibian



Bird



Insect



SIMILARITIES

- Mammals, some insects (incomplete metamorphosis) and birds have three stages in their life cycles.
- Mammals, some insects (incomplete metamorphosis) and birds all have young that look like the adult.
- Amphibians, all insects and birds all start life as an egg. These eggs are fertilised and developed outside the body.

DIFFERENCES

- Some insects (complete metamorphosis) have four stages in their life cycle and amphibians have six stages in their life cycle.
- The young of some insects (complete metamorphosis) and amphibians do not look like the adult.
- A mammal does not start life as an egg. Life starts when the egg is fertilised and it then becomes an embryo. This develops inside the mother's body.

Key Vocabulary

reproduction offspring mammal insect metamorphosis amphibian bird pollination stigma ovule egg embryo young adult

YEAR 5 SCIENCE—ANIMALS INCLUDING HUMANS

KNOWLEDGE ORGANISER

GROWTH, DEVELOPMENT AND PUBERTY








What have we learnt in this topic before and what we will learn this year?

In Year 4, we learnt about the different parts and functions of the digestive system and different types and functions of teeth.

In Year 5, we learn about growth, development and puberty. We look at describing how humans change and develop from birth to old age.

In Year 6, we will learn about the human circulatory system and recognise the impact of diet, exercise, drugs and lifestyle on our bodies. We will also look at how water and nutrients are transported within animals and humans.

Human Timeline

Foetus before birth 12 weeks—40 weeks	Baby 0-1 years	Toddler 1—3 years	Child 3—10 years	Adolescent 10—18 years	Adult 18+ years	Old age 65+
<p>In humans the gestation period is 37 weeks (9 months) and is split into 3 'trimesters', each lasting about 12 wks or 3 months.</p> <p>After fertilisation, an embryo begins to grow and develop which is then called a foetus from 12 weeks.</p> <p>During this time the embryo/foetus is connected to the mother through the umbilical cord which enables the mothers body to provide oxygen and nutrients to the growing embryo/foetus.</p> 	<p>Developmental milestones:</p> <p>Sits unsupported</p> <p>Starts to crawl</p> <p>Stands unaided</p> <p>Starts waking</p> <p>First words</p> 	<p>Developmental milestones:</p> <p>Becomes confident at walking and running</p> <p>Learns to eat</p> <p>Starts mark making</p> <p>Recognising familiar faces, objects, rhymes and songs</p> <p>Starts to talk in sentences</p> 	<p>Children often start nursery aged 3 and they start school when they are 4, turning 5 years old.</p> 	<p>Puberty happens during adolescence but can start any time between 8—14 years old.</p> <p>This is a time when physical and emotional changes take place as your bodies become capable of reproduction. Some changes happen to both females and males and others are specific to gender.</p> <p>Physical changes include growing hair in different places, voices become deeper (boys), menstruation starts(girls) and sweat glands producing more sweat.</p> <p>Emotional changes occur due to hormones being released in your body – testosterone in boys and oestrogen in girls – which can change the way you feel.</p> 	<p>Humans stop growing around the age of 20 years and spend most of their adult lives gradually aging.</p> <p>Aging happens in many ways including physical changes such as grey hair and wrinkles.</p> <p>Aging can also affect likelihood of certain illnesses or conditions such as arthritis.</p> <p>Women's fertility deteriorates with age and the risks to mother and baby increase. Women go through menopause, usually in their 50s, during which time they stop menstruating and can no longer reproduce.</p> <p>Men are able to reproduce at any adult age</p> 	<p>Changes that have gradually occurred throughout adult life can be more significant or noticeable in old age, such as: bones weaken, bodies shrink slightly in height, hair loss (more often in men) and hair loses its colour, there is often deterioration in hearing and eyesight, the heart rate slows down, and skin become wrinkled (less elastic).</p> <p>Everyone will experience aging in different ways depending on genetics and lifestyle.</p> 

Key Vocabulary

gestation embryo foetus baby child adolescent adult old age testosterone oestrogen puberty

YEAR 5 HISTORY – HISTORY MAKERS

KNOWLEDGE ORGANISER



What have we learnt in this topic before and what we will learn this year?

In Year 2, we learnt about History makers by studying the lives of Mary Seacole and Florence Nightingale. We learnt how they both helped people as nurses and considered the similarities and differences between them.

In Year 3, we continued this by learning about the life and legacy of Queen Elizabeth II and King Charles III, focusing on their coronations. We also visited Windsor Castle to learn more about the monarchy.

In Year 5, we will continue our study of History makers by looking at the lives and legacies of Martin Luther King.

EMMELINE PANKHURST

Emmeline Pankhurst was a British Women's rights activist who led the Suffragette movement in the UK. She was born in Moss Side, in Manchester, in 1858, to parents who cared a lot about politics. She first became interested in the idea of suffrage at the age of 14. (The word 'suffrage' means having the right to vote).



The Suffragettes campaigned for the right for women to be able to vote in political elections. Before this movement, women in the UK were not allowed to vote. Emmeline was helped to lead the movement by her daughters Christabel and Sylvia. The group started off with peaceful protest. They would chain themselves to places, hold up placards, and make speeches about equality. However, after they were not being listened to, the protests became more violent. There were reports of property damage, physical assaults, and even arson. In 1918, the law was finally changed and Women householders over the age of 30 were finally allowed to vote. Emmeline died on 14th June 1928. Two years later, a statue of her was built in Victoria Tower Gardens, next to the Houses of Parliament.

CIVIL RIGHTS

Civil rights are basic rights that every citizen has under the laws of the government. Civil rights for every person means that regardless of gender, skin color, religion, nationality, age, disability, or religion, a person should not be discriminated against and include the right to free speech, privacy, religion, assembly, a fair trial, and freedom of thought. The term "civil rights" comes from the Latin term "ius civis", which means "rights of a citizen." Anyone who is considered a citizen of a country should be treated equally under the law.

Throughout history there have been different civil rights movements. Each movement has fought for the rights of a given section of the population that was being discriminated against.

Key Vocabulary

Emmeline Pankhurst	Women's right	The Suffragette movement	law	right to vote	Civil rights	Martin Luther King
segregation	non-violent protest	'I have a dream' speech	Muhatma Gandhi	Britain	India	campaign rights

MARTIN LUTHER KING

Dr Martin Luther King was an American Civil Rights campaigner who tried to make sure that everyone was treated equally. King was born on 15th January 1929 in Atlanta, Georgia. His father was a pastor who argued against segregation. In southern America at the time, white people were seen as being 'better' than other people. At high school and college, King became known for his public speaking skills, winning several awards. As a result, he was soon chosen to be the leader of the local improvement organisation, and (inspired by the story of Rosa Parks) he led the Montgomery Bus Boycott. His intelligence, courage, resilience and belief in non-violent protest helped to make civil rights one of the most important issues in America by the 1960s. His most famous moment was in August 1963, when he gave his 'I Have A Dream' speech. He was also the youngest person to win the Nobel Peace Prize. Unfortunately, Martin Luther King was assassinated (killed) in April 1968 for his beliefs. Martin Luther King Day is now celebrated in the USA every January.



MOHANDAS (MUHATMA) GHANDI

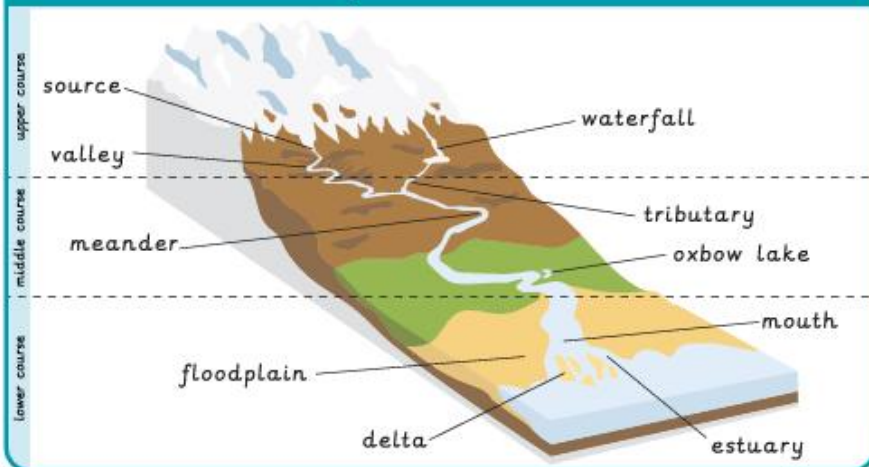
Mohandas Gandhi was an Indian civil rights activist and is often considered one of the world's greatest ever political and social leaders. Gandhi was born on 2nd October 1869, in Porbandar, India. When he was young, he learned the religions of Hinduism and Jainism. After finishing university, he moved to the UK to study law. He was shocked to find how Europeans mistreated Indian settlers.

He began to use peaceful, non-violent protest against it. After he returned to India, he became a powerful political leader. He led protests in 1920-22, in 1930-34, and in 1940-42 and refused to enter British courts and schools and stopped using British goods. His work earned him the title of 'Mahatma', which means 'great soul.' Gandhi was put in prison several times for his protests. However, he didn't let this stop him from campaigning for the cause. In 1930, Gandhi led his most famous protest - the Salt March. This was a protest against a British tax on salt. He led Indians on a march to the sea to collect their own salt. Sadly, Gandhi was assassinated on January 30, 1948, at the age of 78 in New Delhi, India. He was shot while walking to a prayer meeting.

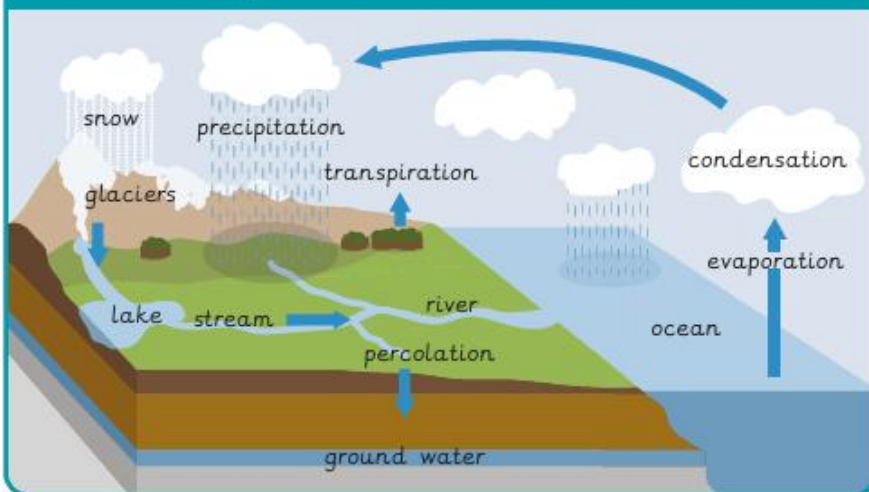


What are rivers and how are they used?

River courses and features



The water cycle



How are rivers used?

- Rivers are important habitats for plants and animals.
- They provide a supply of food and drink for humans and animals.
- Rivers can help crops grow by dispersing nutrients and making soil more fertile.
- Rivers contain valuable minerals such as gold and diamonds which people can find and sell.
- They offer transport routes for people and goods.
- Rivers can be used for leisure activities such as boating, swimming, fishing and many other fun activities.
- Many settlements and communities are built along rivers.
- Some people live on rivers in houseboats.
- Water from rivers can be used for irrigation on farmland.
- Renewable energy, called hydroelectric power, can be generated by moving water.



What are rivers and how are they used?

evaporation	The process in which warm water turns from a liquid to a gas in the air (water vapour).
condensation	The process in which water vapour rises in the air, cools down and turns into small water droplets.
precipitation	The process in which water falls from clouds to the ground, in the form of rain, sleet, snow or hail.
delta	A wide area near where a river meets the sea which features a build-up of sand and sediment.
estuary	The area where fresh water from a river meets salt water from the sea.
floodplain	Areas of flat land on either side of a river that can become flooded if the river gets too full.
meander	A bend or curve in a river.
oxbow lake	A bend in a river that has been separated from the main river.
river mouth	The place where a river flows into the sea.
source	The place where a river starts.
tributary	A stream that flows into a larger stream or river.
valley	An area of low land between two hills or mountains, usually with a river running through it.



Longest river in the UK:
The River Severn.

Longest river in the world:
The River Nile, Africa



YEAR 5 ART – PERCEPTION LANDSCAPES

KNOWLEDGE ORGANISER



<p>What have we learnt before in Art and what we will learn next?</p> <p>In Year 4, we studied the work of Adriano Panella. We used watercolour paints, to mix colours, using tint, shade and tone, to create mood in our art work.</p> <p>In Year 5, we will extend this by looking at the work of artist 'David Hockney'. We will focus on his use of bright, contrasting colours and use of space and perspective.</p> <p>In Year 6, we will create printing blocks using both relief and impressed methods to create images and represent textures. We will use a variety of printing techniques to create a finished print landscape in the style of Paul Nash.</p>	<h3>DAVID HOCKNEY</h3>
<p>David Hockney is a British born, contemporary artist and was part of the pop art movement in the 1960s. He was born in Bradford, England, in 1937.</p> <p>He experimented with a variety of styles over sixty years including paint, photography and digital media. He used bright acrylic colours to create a smooth, bold sheen to his paintings. His work includes portraits and still-life, but also landscape painting.</p>	

VANISHING POINT

Perspective in art refers to the representation of **three-dimensional objects or spaces** in two dimensional artworks.

One way of creating this is by using a **one-point perspective**. Parallel lines are drawn to meet at a point on the **horizon**. This creates the illusion of distance, and the point at which the lines meet is called the **vanishing point**.

SGRAFFITO USING OIL PASTELS

Sgraffito is an artistic technique where a design is created by **scratching** through a surface to reveal an **underlying layer of contrasting color**. It involves layering materials and then removing the top layer to expose the color below, using a tool such as a **toothpick**.

This can be **most effective** when **contrasting or complimentary colours** are used.

SPACE

Space in art refers to the **area** in a piece of 2d or 3d art work. It comprises the total area surrounding the subject matter, which can be **inside, around, in between, below, and above**.

When looking at a landscape drawing, we focus on:

- **The foreground** (thing closest to you)
- **The background** (area furthest away)
- **The middle ground** (everything in between)

These help us to create **depth and perspective**.


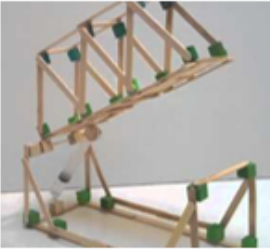
Key Vocabulary

David Hockney	landscape	sgraffito	oil pastels	scratch	underlying	contrasting	complimentary	space
foreground	background	middle ground	depth	perspective	parallel	vanishing point	2d	3d

YEAR 5 DT – PNEUMATIC BRIDGES

KNOWLEDGE ORGANISER



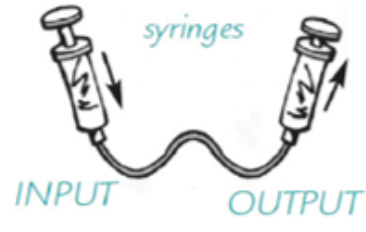
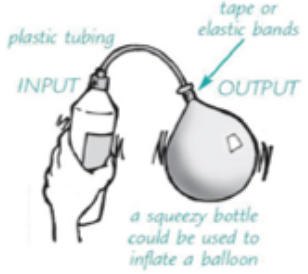
<p>What have we learnt before in DT and what we will learn next?</p> <p>In Year 4, we learnt about Frame structures and we built a stand to make a 'Panathenaic stadium' using frames, concertinas and triangles to reinforce.</p> <p>In Year 5, we will revise our knowledge of Frame structures and we will build a pneumatic bridge using a variety of truss designs.</p> <p>In Year 6, we will further our knowledge by learning about Shell structures by building our own model Anderson Shelter.</p>	<p style="text-align: center;">BASCULE BRIDGES</p> <p>There are many types of Bridges, which allow people, vehicles or ships to move either over water or between two pieces of land. Some Bridges have moveable parts and one of these is called a 'Bascule Bridge'.</p> <p>Bascule is a French word translated as seesaw and describes how the sides of the bridge road open.</p>  <p>Tower Bridge, in London, is an example of a double leaf Bascule bridge, where the road splits in the middle and both parts lift up to allow ships or cargo to pass through. Single leaf Bascule Bridges work in a similar way but have one moving part on one side, rather than in the center.</p> 
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PNEUMATICS – USING AIR PRESSURE TO MOVE PARTS

Pneumatic devices use the power of compressed air (air that has been squashed tightly into a space) to make something move using an input and an output.

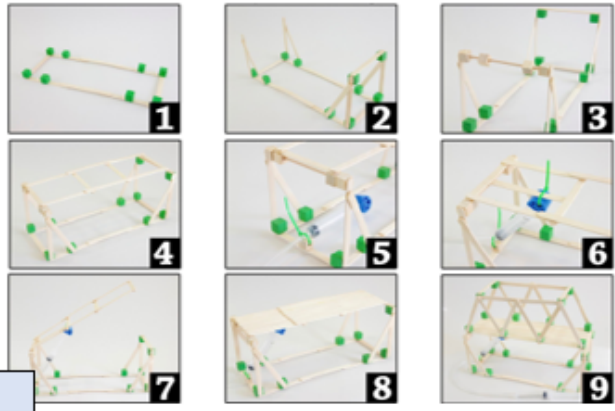
The compressed air or gas can be used to move motors, cylinders or other mechanical parts.

The word 'pneumatics' comes from the ancient Greek word 'pneuma', which means 'breath' or 'air'.





CONSTRUCTING USING A FRAME STRUCTURE


A frame structure is made from different parts joined together to make them stable and strong. Frame structures can be as simple as a garden fence or something much more complex such as a skyscraper.




MAKING STRUCTURES STRONGER




Warren Truss




Warren Truss With Verticals




Pratt Truss



Howe Truss



K Truss



Roof Truss

A truss is a frame structure made with triangles that supports something, like a roof or a bridge. Each triangle has beams that are connected either vertically or horizontally and joined at the corners.

The beams work together to spread the load evenly across the whole structure, supporting the load and staying rigid and strong.

Key Vocabulary

Pneumatic structure bascule frame joins hinge truss pressure support movement



COMPUTING: DATA AND INFORMATION KNOWLEDGE ORGANISER



Overview

Flat-File Databases



-Data is raw numbers and figures. Information is what we can understand from analysing data.

-There are lots of different ways that we can collect, log and interpret data, including by using databases.



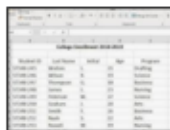
-Databases organise data so that it can be easily added to, amended, stored and accessed. Computer databases can allow large amounts of data to be sorted, filtered and edited more easily.

Types of Databases

Database: A database is a collection of organised data that is easily stored and used. Databases often structure data in logical ways (e.g. in columns, rows and tables) so that it can be accessed by those who need it easily. Databases are made up of individual records, which contain information in different fields (categories).

-Paper Databases: Paper databases require the creator to manually write in individual records, and to sort the records in an appropriate order. Paper records can still be useful in small databases, particularly where information is not changing and does not need to be amended frequently. However, most large databases are now stored on computers.

-Computer Databases: Many computer programs allow us to create databases, e.g. *jsonData* or *Microsoft Excel*. Computer databases have become more popular than paper databases, as data can be easily and quickly added or removed, sorted, filtered, edited, or viewed at any time.



Using a Computer Database

-Computer databases often contain large amounts of data. We can find the data that we need by using the 'search', 'filter' and 'sort' functions. Search functions allow us to type in the exact word/s that we are looking for. This can be useful if we are looking for a particular record.



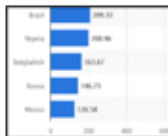
-If we are looking for records that share certain information we can filter out data by different fields. For example, we filter in the 'age' field for all students aged 23. The database will then present only the students aged 23.

-We can also sort records by the data in particular fields. e.g. we may sort by the students' ages, from youngest to oldest. The youngest student will then appear at the top.

Student ID	Last Name	Initial	Age
ST340-245	White	B.	21
ST340-246	Wilson	P.	19
ST340-247	Thompson	A.	18
ST340-248	Holt	B.	23
ST340-249	Armstrong	L.	22
ST340-250	Graham	S.	20
ST340-251	McLadden	H.	26
ST340-252	Jones	S.	22
ST340-253	Russell	W.	20
ST340-254	Smith	L.	19

Presenting Data

-Data can be shown visually, by using graphs and charts. This allows users to quickly and easily find answers to the questions that they need. It helps the user to easily see trends and to sequence information.



-Charts and graphs can be created by selecting the charts icon and selecting which fields to display in the x-axis and y-axis.



Using Databases

-Remember that databases are used in order to quickly and easily find information. Databases are only able to do this if the data is organised logically into clear records and fields.

-Databases are used in most institutions across the world. Think about: medical records, school student information, flight logs and business accounts.

Account	Balance	Interest	Overdraft
Current Account	£1200	£100	£500
Savings Account	£500	£20	£0
Business Account	£300	£15	£100

Important Vocabulary

Information

Data

Collection

Database

Search

Sort

Filter

Software

Fields

Records



COMPUTING: CREATING MEDIA KNOWLEDGE ORGANISER

Vs



Overview



Video Editing

- You should already know that video means the recording, reproducing and broadcasting of visual images (often accompanied by audio).
- Video is made up of a sequence of images shown in quick succession, giving the impression of movement.
- Many different devices can be used to record, edit and playback video and sound.
- Theme, setting, characters, colour, sound, and dialogue are all important features of video.

Editing Videos

Windows Movie Maker is one example of a video editing tool, but many others are available. Examples include WeVideo, Nero Video, and Apple iMovie.



In order to edit your video, you first need to import it from your device to the computer. You then need to import it into Movie Maker by clicking 'Add videos and photos.'



By right-clicking on the video thumbnail, you can choose to 'split' the video into pieces. The different pieces can be moved or deleted.



The trim tool allows you to move excess video from the beginning or the end.



A number of special effects are available, including using animations and transitions between shots. You can also add text in captions.

Remember to save your project regularly. You need to save your project as a *.wmv file so that you can continue to edit it.

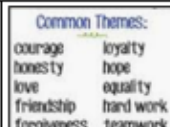


Features of Videos

Videos present moving images, often accompanied by sound. The following features are commonly found in videos.



Plot means the main events in the video, shown in a sequence. Plot features are caused by and affect one another.



Themes are the main ideas that run through the video, e.g. love, friendship, magic, violence.



Most videos, even very short videos, try to give the audience a message. This may be obvious or hidden.



Props are the moveable objects that are used by the actors/ actresses in videos texts.



Dialogue is the name given for the conversations between people in video texts.



Characters are the different people and animals in a story, including in a video.

Recording Videos



Static Camera: The camera is in a fixed position, sometimes using a stand or tripod. Examples of this in use are during news-reading and weather forecasts.

Top Tips for Recording High-Quality Videos

- Use considered lighting.
- Think carefully about the sounds that you will use, e.g. music and sound effects.
- Think about the use of colour.
- Consider the use of a green screen for settings.



Zooming: Zooming in means to give a closer view of the subject. Zooming out gives us a further, broader view of the subject. Zooming too close can make the subject appear blurry.



Pan: The camera position is fixed, but moves from side to side.
Tilt: The camera position is fixed, but moves up and down.

Important Vocabulary

Video

Audio

Themes

Message

Dialogue

Plot

Props

Zoom

Angle

Pan/Tilt

Prior Learning

Investigated ways of performing running, jumping and throwing activities. Used a variety of equipment to measure, time and compare different styles of runs, jumps and throws.

Unit Focus

Sustain pace over short and longer distances. Run as part of a relay team. Perform a range of jumps and throws.

We are learning...

1. to run for speed & distance on our own and as part of a team.
2. pacing our run over longer distances.
3. different jumping styles and exploring which ones we can jump further with.
4. to use the push-throw technique.
5. to exchange a baton within a restricted area.
6. to design a running, jumping or throwing activity for others using the STEP principle.

Key Questions

1. Why should you pass the baton into your partner's opposite hand?
2. Which throw do you think is most effective for distance?
3. Can you jump further with a run up?

Equipment

A variety of balls, hoops, bean bags, quoits, throw-down markers, foam javelins, balloons, stopwatches, measuring tape, skipping ropes, foam discus, vortex howler, and low hurdles.

Vocabulary

Bounce, relay, baton, safety, rules, targets, record, set, take over, pass, sustain, push, receive, hop – step – jump.

Rules

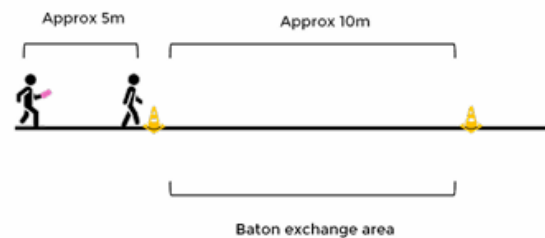
- Receiving the baton within a restricted area.
- Fair scoring of event/activity.
- Appropriate rules in running, jumping or throwing events.

Assessment Overview

Head - Distinguish between good and poor performances and suggest ways to improve self and others.

Hand - Sustain pace over shorter and longer distances.

Heart - Able to run as part of a team in relay-style events.



Prior Learning

Explored different forehand and backhand shots. Worked to return the serve. Have explored different court positions in gameplay.

Unit Focus

Introduce volley shots and overhead shots. Apply new shots into game situations. Play with others to score and defend points in competitive games. Further, explore tennis service rules.

We are learning...

1. to recap and perform a range of different shots with accuracy and control.
2. to move quickly to the ball to perform a volley.
3. to play an overhead shot and know when you might use this.
4. to use different court formations during doubles play.
5. to refine court movement to hit the ball before the second bounce.
6. to perform a diagonal serve to begin a game in competitive situations.

Key Questions

1. How many times can a ball bounce in tennis? Is this the same in doubles and singles? (Yes, it is the same)
2. What other games do you need quick feet?

Equipment

Tennis racquets, nets, sponge balls, tennis balls, cones, hoops, bench.

Vocabulary

Service rules, volley, overhead, singles, doubles.

Skill

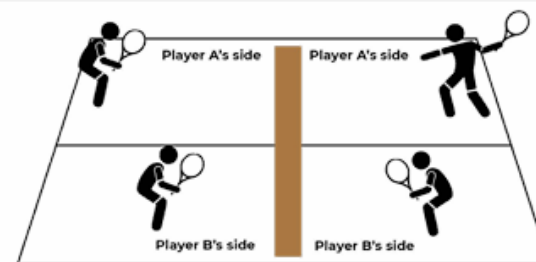
- Volley Shot - A shot usually played close to the net, where the ball does not bounce on your side of the court. To perform a volley shot, you should hit the ball before it bounces on the ground.

Assessment Overview

Head - Cooperate and collaborate with others to play in a sportsman-like way.

Hand - Approach the ball to return before the second bounce.

Heart - Play with others with some flow to the game, keeping track of their own scores.



Prior Learning

Developed and applied a range of skills in a competitive context. Chosen and used a range of simple tactics in isolation and game context. Consolidated existing skills and applied them with consistency.

Unit Focus

Link a range of skills and use in combination. Collaborate with a team to choose, use and adapt rules in games. Recognise how some aspects of fitness apply to cricket, e.g., power, flexibility and cardiovascular endurance.

We are learning...

1. to work with a partner to score runs.
2. to throw accurately over short distances to get batters out.
3. to follow the path of the ball to catch as a wicketkeeper.
4. to overarm bowl with accuracy whilst using a run-up.
5. to play a forward defensive shot.
6. to set a field in a game to limit the runs scored by a batter.

Key Questions

1. If a batter can hit a wide variety of different types of shots, does this make it harder or easier to set a field?
2. What are some key differences between an attacking shot and a defensive shot?

Equipment

Range of balls, range of bats and striking equipment, stumps, button cones, batting cone.

Vocabulary

Calling, accuracy, rise of the ball, anticipating, forward defensive shot, setting a field flexibility, cardiovascular endurance, power.

Rules

- Each player will bowl one over when fielding.
- Each team starts with 100 points.
- 5 runs are deducted if a player is bowled, caught or run out. They still continue to bat their dedicated two overs.

Assessment Overview

Head - Describe what 'setting a field' means.

Hand - Begin to employ specific bowling techniques such as overarm in cricket.

Heart - Show perseverance during a game and commitment to the team.



Prior Learning

Developed a range of skills in a competitive context. Chosen and used a range of simple tactics in isolation and a game context. Identified different roles in rounders.

Unit Focus

Link together a range of skills and use in combination. Collaborate with a team to choose, use and adapt rules in games. Recognise how some aspects of fitness apply to rounders.

We are learning...

1. to judge how far you can run based on the distance of a hit.
2. to throw over short distances with power and accuracy to get batters out.
3. to follow the path of the ball to make sure it is fielded consistently.
4. the backwards hit rule and using it tactically as the backstop.
5. to hit the ball into gaps to maximise the chance of scoring.
6. to set a field in a game to limit the scoring of a batter.

Key Questions

1. What's the difference between close and deep fielding?
2. If the backstop threw the ball to 2nd base and 2nd base misfielded the ball, what could the batter do?
3. Why would a batter purposely hit the ball backwards?

Equipment

Range of balls, range of bats and striking equipment, posts, button cones, batting cone.

Vocabulary

Power, consistently, accuracy, stump, conditioned, fitness, miss hit, strength, encouragement, defensive, offensive.

Rules

- Batters waiting should be stood in the backward area, well away from the 4th post.
- A 'No Ball' is awarded when the ball is bowled above the head or below the knee if it is too wide, it bounces before it gets to the batter or if the bowler's foot is outside of the bowling square.

Assessment Overview

Head - Apply the backward hitting rules.



Hand - Play more attacking shots, looking for gaps in the field.

Heart - Show commitment towards their team and perseverance during gameplay.





YEAR 5 PSHE - DRUGS

Overview and Recap	Scenarios to discuss
<p>At South Hill, we follow the 'Christopher Winter project' curriculum for 'Relationship and Drugs' education.'</p>  <p><u>We are learning about how to live healthy and safe lives, to promote our wellbeing and to have positive relationships with others.</u></p> <p>You should already know that:</p> <ul style="list-style-type: none"> - Being healthy is about feeling good in your body and wellbeing is about feeling good in your mind. - We need to <u>look after our bodies</u>. It is important that we have a <u>balanced diet</u> and that we <u>regularly exercise</u>. We should take care with medicines (and all drugs) as they can be harmful. - We should know the effects of smoking on the body and know the dangers that smoking and alcohol pose to our health and us as a person. We should understand that all drugs are substances which change the way the body and mind works. 	<p>On the way home from school a friend pulls <u>out</u> a canister of butane gas. He suggests you go to the park so you can both have a sniff. Emphasize that this is a risk that should never be taken as there is a possibility of dying on first use. This is called sudden sniffing death syndrome.</p> <p>2. You are at a family <u>party</u> and you spot a bottle of lager on the table. You have always wanted to know what it tastes like.</p> <p>3. Discuss the risks of drinking from a bottle whose contents you are unsure of. Remind them that alcohol can be more dangerous for children as children's bodies are not yet fully developed and the liver struggles to cope. This can lead to alcoholic poisoning.</p> <p>3. You are playing in your house when you find your relative's cigarettes. Your friend wants you to try one. Discuss that nicotine, the drug in a cigarette, is addictive. <u>Also</u> there are over 400 toxins in a cigarette which can damage health. Smoking related illness is the biggest cause of death in the UK.</p> <p>4. You find a syringe in the park whilst playing with your friends. Emphasize that a syringe should only be picked up by someone who is trained and is wearing protective gloves. This is because syringes may contain blood which can transmit infections, including HIV.</p> <p>5. Your older sister is in her room with some friends being very giggly. There is a funny smell coming from the room. You go in and they are sharing a big cigarette, one of them asks if you would like to try it. This scenario suggests cannabis use. Discuss that cannabis is usually smoked as part of a cigarette so carries the same risks as tobacco. Cannabis use can also lead to mental health problems.</p> <p>6. You are playing in the kitchen when one of your friends accidentally knocks over a bag. Some pills fall out and your friend tells you to try one of them.</p> <p>Discuss the risks of taking a medicine that has not been prescribed for you.</p> 

Drug users – The Facts

Gender

- Women are not nearly as likely to use drugs as men.
- Men more likely to use illegal drugs in greater amounts.
- However - women are catching up with men, especially with alcohol.
- Women more likely to smoke cigarettes and use medicines.

Age

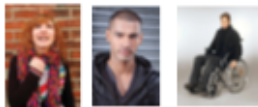
- The vast majority of children do not use drugs. Children use medicines for illnesses, drink caffeine in cola, some taste alcohol at a young age.
- Not all teenagers drink and use drugs. By the age of 15, 4 out of 5 teenagers have never taken an illegal drug and half have never had an alcoholic drink.

Disability

- Although disabled people may be prescribed medicines, some do use illegal drugs to self-medicate, for example cannabis for multiple sclerosis

Ethnicity

- Black and African Caribbean people are no more likely to use drugs than white people.
- People from the Asian Sub-Continent are less likely to use drugs than other groups.



KNOWLEDGE ORGANISER

Effects of illegal drugs	
<p>ECSTASY Effects This drug gives people an energy that makes them feel alert and alive. It makes the senses more aware. Risks This drug can cause users to panic and feel confused. It can make users feel down after use.</p> 	<p>COCAINE Effects This drug makes users feel wide-awake, confident and full of energy. The effects last for about 20-30 minutes. Risks Some people are over-confident on this drug and so may take very careless risks. This drug is very addictive. It can be difficult to resist the craving due to changes in the brain.</p> 
<p>HEROIN Effects This reduces physical and mental pain. It gives the user a feeling of warmth and well-being. Bigger doses can make the user sleepy. Risks This drug is highly addictive. Overdoses can lead to coma and even death. The risks of sharing needles put users at increased risk of getting infections.</p> 	<p>CANNABIS Effects It may make a user feel relaxed and happy. Some people get the giggles and may become more talkative. Risks This drug can make a user become worried or panic. There is a risk of developing mental health problems.</p> 
<p>VOLATILE SUBSTANCES Effects People say it's like being drunk. Users might feel dizzy. It can be difficult to think straight. This can last for up to 45 minutes. Risks People can be physically sick and blackout. Too much can result in a coma. There's a risk of heart problems which have been known to kill users the first time.</p> 	<p>ALCOHOL Effects This drug makes a person relax so a small amount can make them feel less worried and more confident. Risks This drug may make a person do things they might not normally do. Accidents often occur when using this drug. Large amounts of this drug can make people be sick and forget things.</p> 

Strategies for resisting peer pressure

1. Stand up straight, make eye contact and say no
Assert yourself with physical confidence by standing tall with feet slightly apart, head high, and look the person straight in the eye. Your posture when you speak is usually more important than the words you say.
2. Say no assertively – not aggressively
Say no to the person using a friendly but firm and determined voice, and then do not give in. It is not your job to try changing the other person's mind, but to keep yourself out of trouble and follow your beliefs. If you are too aggressive, the peer may react aggressively too.
3. Say no, keep repeating this – do not waiver
Sometimes it helps to repeat your decision several times: "No, it's not right," "No, it's not right." It makes you sound assertive and helps you not back down from your stand.
4. Say how you feel
Say how you are being made to feel in the situation. I feel uncomfortable, sad, worried, upset etc.
5. Give reasons why you don't want to do this
Thinking about the possible consequences of the choice helps strengthen your convictions not to proceed with what you're asked to do. Give the person the reason for saying no: "It's illegal," "I'll be in trouble," or "I could get hurt."
6. Suggest something else to do
Suggest to your peer that they do something else instead.
7. Say goodbye and leave
Standing up to a friend isn't easy. You may face teasing or rejection for your choice, but that's what courage is all about. Sometimes the best option is to walk away from the situation.

Key Vocabulary

Alcohol Tobacco Cannabis Cocaine Volatile substance Heroin Ecstasy user legal illegal Class A Class B addictive risk

YEAR 5 PSHE - RELATIONSHIPS

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Overview and Recap

At South Hill, we follow the 'Christopher Winter project' curriculum for 'Relationship and Drugs' education.

In Year 5 this year, we will learn:

- To explain the main physical and emotional changes that happen during puberty
- To understand male and female puberty changes in more detail
- To explain how to keep clean during puberty
- To explain how emotions change during puberty
- To know how to get support and help during puberty



PUBERTY

Puberty is the time when your body changes from being a child to a young adult. Your body is preparing itself to be able to reproduce (have a baby). Puberty starts when extra amounts of chemicals called hormones start to be produced in the body. Puberty changes are a normal part of growing up and each person will start puberty at a slightly different time and will develop in their own way – it's important to respect these differences

The female body mainly produces **progesterone and oestrogen** which start the changes of puberty. This usually starts between 8-13 years. The male body mainly produces **testosterone** which start the changes of puberty. This usually starts between 10-15 years.

KEEPING CLEAN DURING PUBERTY

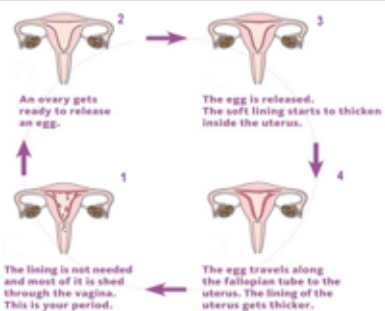
Sweat is your body's **natural way** of helping you to **cool down**. Sweat can also some times **become smelly** when the chemicals it contains **mixes with bacteria** that live naturally on your skin. This is why it is really important to wash every day using soap or shower gel and you may need to start using deodorant.

EMOTIONAL CHANGES DURING PUBERTY

It is not just your body that changes during puberty – your **mind and feelings** change too. Sometimes:

- You may feel **lonely and confused**.
- You may have **mood swings** (including irritability, tearfulness, overwhelming happiness and confusion).
- You may want **more independence**.
- You may also become **argumentative and bad tempered**.

MENSTRUATION



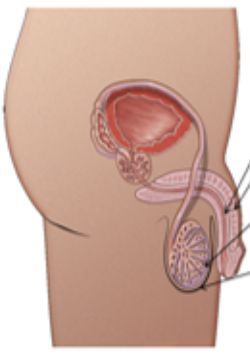
Periods (menstruation) happen due to the **hormones changing** in your body. Even before birth, a girl has 1-2 million tiny eggs (Ovum) in her ovaries. When puberty is reached usually an **egg is released each month from her ovaries**. The egg moves from the **ovary and along the fallopian tube and down into the (womb) uterus**. If the egg is fertilised by sperm then a pregnancy will occur. If the egg is not fertilised then the **lining of the womb and the egg leave the body through the vagina**; this is called a period.

Key Vocabulary

- navel pubic hair nipples ovaries penis testicles scrotum uterus vagina vulva womb sperm egg sex private
- masturbation hormone testosterone oestrogen menstruation period penis testicles cervix fallopian tube fertilised

CHANGES TO BOYS DURING PUBERTY

- Grow taller and heavier
- Bones grow bigger and heavier
- Nose and jaw get bigger and face gets longer
- Get more muscles
- Hair and skin can become oily and you may get spots
- Body sweats more
- Hair grows on the face, under the armpits, around the genitals (pubic hair).
- May get more hair on arms, legs and chest.
- Voice gets deeper
- Penis and testicles grow bigger and longer
- May have mood swings, sexual thoughts and feelings



- Urethra**
 - The tube through which urine and semen leaves the boy's body
- Penis**
 - Tube-like organ that hangs outside the body
 - Come in all sizes and shapes, determined by our genes
- Testicles or testes**
 - Usually two, one hangs lower
 - Sometimes called **balls** or **nuts**
 - Where sperm are made
- Scrotum**
 - Bag of skin that holds testicles
 - Keeps them at right temperature to make sperm, slightly cooler than body's temperature
 - Gets bigger and baggier and turns a darker colour

CHANGES TO GIRLS DURING PUBERTY

- Get taller and heavier
- Bones grow bigger and heavier
- Hips get wider and more curvy
- Face changes shape
- Voice gets a little deeper
- Hair grows under the armpits, around the genitals (pubic hair)
- Hair on arms and legs grows darker
- Breasts and nipples get larger
- Body sweats more
- Internal and external sex organs grow
- May have mood swings, sexual thoughts and feelings
- Periods start

