HOOK JUNIOR SCHOOL

Name of Unit - Computing – Year 5 – How a network works

What I should already know:

In Year 3 and 4, I would have learnt about the Internet and how search engines work.

Key concepts- What I will know by the end of the unit

What Is a Computer Network?

A computer network is a group of connected devices, such as computers, printers, smartphones, routers and hard drives. They link together to 'communicate' with each other and share information. Computer networks can be large or small and can have lots of devices connected to them. For example, most schools have a computer network that allows staff and pupils to access and share information and resources. Some devices they might use are printers, computers, tablets and photocopiers.

Networks

The most common network sizes are LAN (local area network), MAN (metropolitan area network) and WAN (wide area network).

LAN:	A small wired or wireless network.
MAN:	A network that covers a city. Mainly uses fibre-optic cable connections between buildings.
WAN:	A network that covers more than 48km (30 miles). WAN networks are connected using copper wires, fibre-optic cables or satellites.

Internet vs World Wide Web

Many people believe that the Internet and the World Wide Web are the same. In fact, they are two separate concepts. One is a network and the other is a file system.

The Internet is a network of computers connected to each other all around the world. The World Wide Web is a global filing system that runs on the Internet. Many entries in the World Wide Web's filing system are websites which consist of many web pages.

What Is Cloud Computing?

Cloud computing is the storage of files online. A group of computers provide storage services through the Internet. Cloud computing uses massive servers to store data and information and is classed as a network.

Topology

Bus topology:	Star topology:
	

Beware of the Malware!

Malicious software can gain illegal access to your computer network and cause damage to your files, data and information. Malware includes worms, viruses, spyware and Trojans.

Glossary of terms	Or translation of key vocabulary and a picture
Encrypted	The process of changing a message so it cannot be read by another except who it is sent too.
Protocol	A protocol is a set of rules that say how information and data should be sent.
Router	Routers are small computers that communicate between the Internet and devices that connect to the Internet. They keep the packets in a network moving to their destination as smoothly and quickly as possible.
Server	A server is a piece of hardware that has a large memory drive where lots of files and resources are stored. It also responds to requests across a computer network.
Streaming	A method that allows people to transmit or receive data. People can stream wherever they like so long as they are connected to the internet.
Topology	Topology is a term used to define the layout of a network and can tell us how different devices are connected.

HOOK JUNIOR SCHOOL

Name of Unit: All about ourselves (Year 5 Spring)

What I should already know

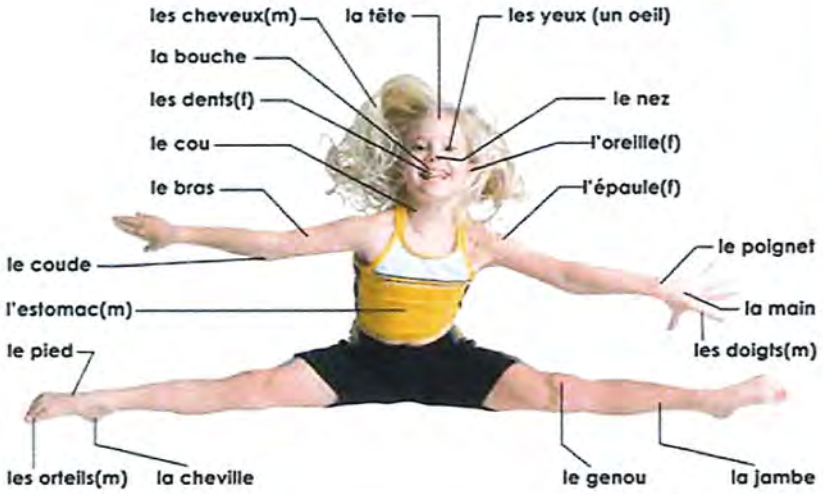
- To express and respond to opinions
- To engage in conversations about fruits, vegetables, clothes
- To understand basic grammar rules when describing the colour of clothes
- To engage in conversation related to payments

Key concepts- What I will know by the end of the unit

- To name body parts
- To describe my hair and eyes
- To correctly place an adjective in a sentence.
- To describe what you are doing
- To describe what you are wearing

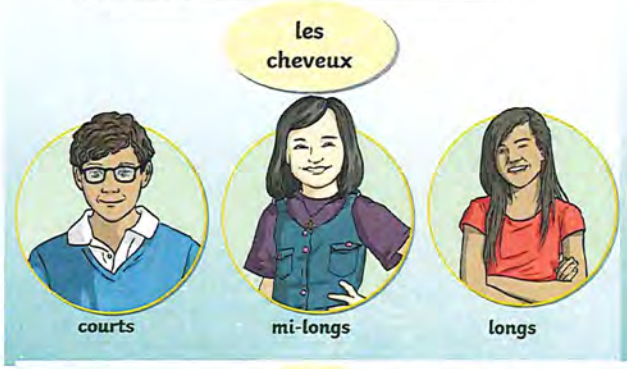
J'ai les cheveux longs et roux et les yeux verts.

Les parties du corps



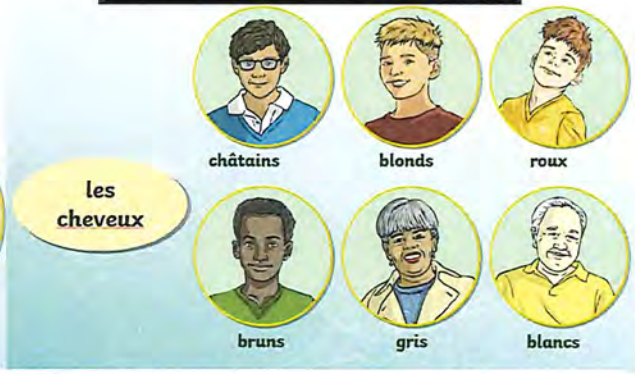
Qu'est-ce que tu fais?

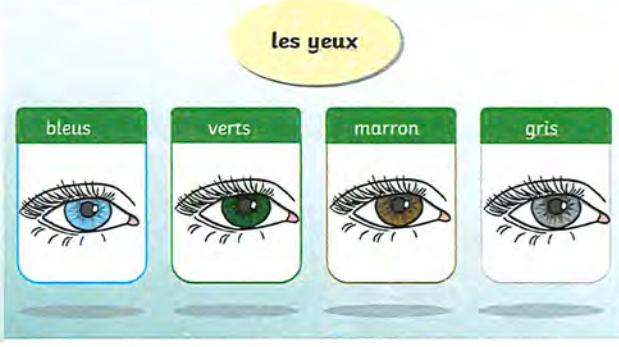
What are you doing?



Qu'est-ce que tu portes?

What are you wearing?



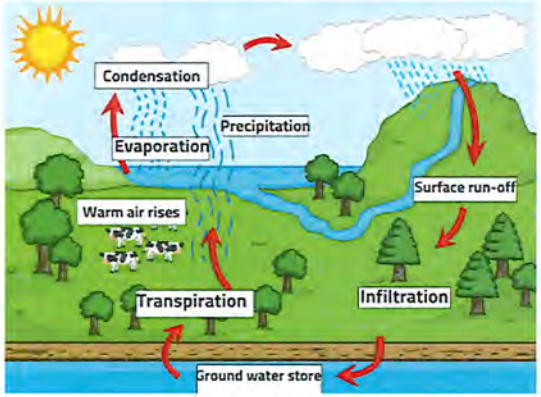


HOOK JUNIOR SCHOOL

Geography – Rivers (Year 5)

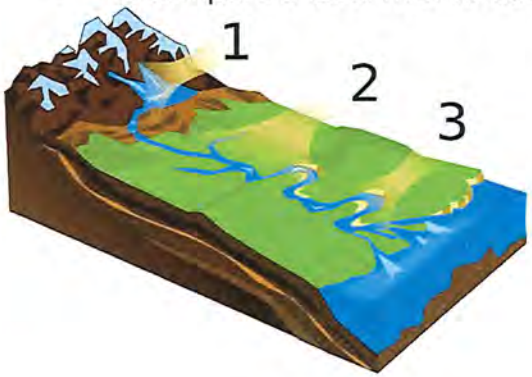
What I should already know

- Different plants and animals live in and are suited to different habitats (science)
- Beaches can change over time due to a range of physical processes
- The water on earth exists in a cycle



Key concepts- What I will know by the end of the unit

- What the different stages of a river are
- To know how physical prosses (eg. the water cycle) and human processes (eg. Pollution, the building of marinas) affect rivers
- To know how rivers affect ecosystems
- To know where the key rivers in Britain are and identify them on a map
- Undertake fieldwork on the river and present my findings
- To compare a local river to other rivers across the world



Glossary of terms	Or translation of key vocabulary and a picture
river	Natural stream of water which flows into the sea, a lake or another river
source	The start point of a river
estuary	The point at which the river meets the sea
bank	The land either side of a river
current	The flow of water in a river, usually caused by the
deposition	When a river drops material being carried by it (eg small particles of rock and sand)

HOOK JUNIOR SCHOOL

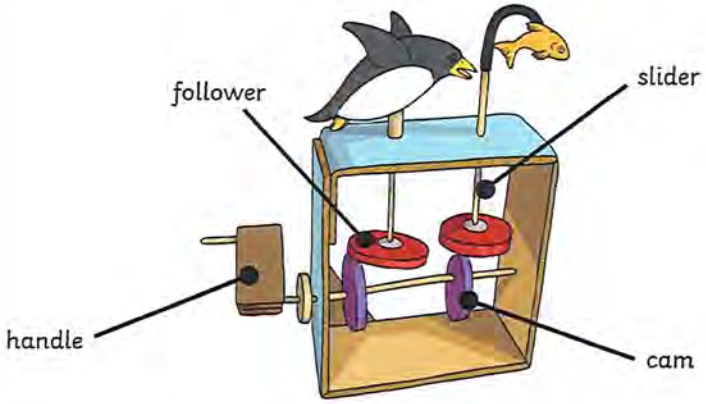
Name of Unit: Design and Technology – Movement and construction- Pulleys and Gears (Year 5)

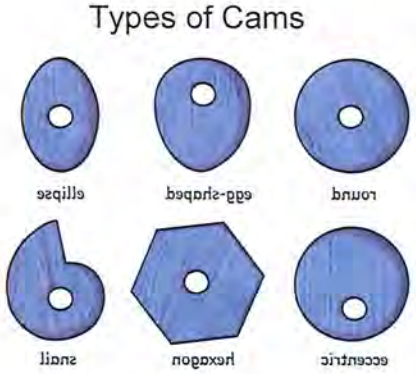
What I should already know

- Experience of axles, axle holders and wheels that are fixed or free moving.
- Basic understanding of electrical circuits, simple switches and components.
- Experience of cutting and joining techniques with a range of materials including card, plastic and wood.
- An understanding of how to strengthen and stiffen structures.

Key concepts - What I will know by the end of the unit:

- To experiment with different cam mechanisms
- To learn about all the different types of cam mechanisms and how they affect the movement.
- To understand how gears and pulleys can be used to speed up, slow down or change the direction of movement.
- To compare the final product to the original design specification.





Glossary of terms	Or translation of key vocabulary and a picture
Follower	The follower is in contact with the cam and causes the slider to move the object from rotational to linear motion
Slider	A slider converts rotational movement into linear movement
Cam	A cam is a wheel (in various shapes) attached to a shaft. The shape of it depends how the shaft moves.
Cam shaft	A shaft with one or more cams attached to it

HOOK JUNIOR SCHOOL

Name of Unit Music – Ukulele (Year 5)

What I should already know

Year 5 Autumn Term Vocabulary List

Dynamics	
Pianissimo	Very quiet
Piano	Quiet
Mezzo piano	Quite quiet
Mezzo forte	Quite loud
Forte	Loud
Fortissimo	Very loud

Interrelated Dimensions of Music	
Pulse	The heartbeat or steady beat of a piece of music.
Rhythm	The combination of long and short notes to create a pattern.
Pitch	How high or low a note is.
Dynamics	How loud or quiet music is.
Tempo	How fast or slow a piece of music is.
Timbre	The quality and character of the sound.
Structure	How the sections of a piece are ordered.
Texture	Layers of sound in the music.
Notation	Ways to visually represent music.

Other Vocabulary	
Melody	A combination of pitch and rhythm.
Coda	The concluding section of a piece of music.
Ostinato	A repeating rhythm.
Crescendo	Gradually getting louder.
Diminuendo	Gradually getting quieter.

Note Lengths:

Name	Length	Note symbol	Rest symbol
minim	2 beats		
crotchet	1 beat		
quaver	½ beat		
semi-quaver	¼ beat		

Key concepts- What I will know by the end of the unit

How a ukulele makes sound.
What a chord is and how to play 4 different chords.
How strumming patterns can be used to add interest to a piece of music.

Glossary of terms	Or translation of key vocabulary and a picture
ukulele	An instrument from Hawaii . Part of the string family.
chord	A series of notes played together.
Strumming pattern.	Different rhythms that can be used to create interest in a piece, made up of a variety of up and down strokes.

HOOK JUNIOR SCHOOL

Name of Unit – RE – Stewardship (Islam) – Year 5

What I should already know

Developed understanding of Enquiry cycle and what the different stages entail.

Year 4 – Creation stories about 'how the world began' / Geography – environmental topics

Year 5 – Introduction to Islam and its key beliefs and practices

Key concepts- What I will know by the end of the unit

- An understand and definition of 'Stewardship'
- What is precious to them and the importance of looking after that
- Knowledge of how people show stewardship in the world
- Understanding of the Muslim view of stewardship
- A view of what the world would be like without stewardship

Glossary of terms	Or translation of key vocabulary and a picture
Stewardship	the job of supervising or taking care of something, such as an organization or property.
Environment	the natural world, as a whole or in a particular geographical area, especially as affected by human activity.
Islam	a monotheistic (meaning there is only one God) faith regarded as revealed through Muhammad as the Prophet of Allah.
Muslim	a follower of the religion of Islam.
Responsibility	the state or fact of having a duty to deal with something or of having control over someone.
Qur'an	the holy book of Islam

HOOK JUNIOR SCHOOL

Name of Unit: PSHE - Community (Year 5)

What I should already know

Previous unit- anti bullying, relationships and families.

In year 4, the children looked at communities across the world and made comparison between these and their own communities.

Key concepts- What I will know by the end of the unit

Children will develop their learning on community and responsibilities from year 4, including what values are important to communities and how this is linked to democracy.

Children will be introduced to the term pressure groups.

When continuing their learning about responsibilities, they will learn about saving, spending,

Glossary of terms	Or translation of key vocabulary and a picture
community	a group of people living in the same place, having a particular characteristic or shared value in common.
values	the beliefs people have
British Values	Democracy, Rule of Law, Respect and Tolerance, Individual Liberty
Local council	a body of people elected to manage the affairs of a town, county, or district rather than a state or country.
Democracy	a system of government where the whole population or all the eligible members, are able to vote
Pressure groups	a group that tries to influence public policy in the interest of a particular cause.
Loan	a thing that is borrowed, especially a sum of money that is expected to be paid back with interest.
Interest	money paid regularly at a particular rate for the use of money lent, or for delaying the repayment of a debt.
debt	a sum of money that is owed or due.

HOOK JUNIOR SCHOOL

Name of Unit – Science - Properties and changes of materials (Year 5)

What I should already know

A variety of everyday materials. The physical properties of a variety of everyday materials. How materials are suitably used based on their properties.

Glossary of Terms

Soluble – able to be dissolved, especially in water

Insoluble – cannot be dissolved, especially in water

Dissolve – when something solid mixes with a liquid and becomes part of the liquid

Solution – is made when one substance dissolves into another

Reversible change – can be reversed back to its original state

Irreversible change – cannot be reversed back to its original state

Transparent – allows light to pass through

Thermal conductor - a material or device which allows heat to carry through

Electrical conductor – a material or device with allows electricity to carry through

Magnetic – capable of being magnetised or attracted by a magnet

Key concepts- What I will know by the end of the unit

COMPARING AND GROUPING - Materials can be compared and grouped together on the basis of their properties including:

- **Hardness** – how hard or soft a material is
- **Solubility** – whether a material can dissolve
- **Transparency** – whether it allows light to pass through
- **Conductivity** (electrical or thermal) – whether it allows heat or electricity to carry through
- **Response to magnets** – whether it is magnetic

PARTICLE ARRANGEMENT

Solid – particles packed closely together

Liquid – particles have some space to move

Gas – particles are free to move

REVERSIBLE AND IRREVERSIBLE CHANGES

REVERSIBLE	IRREVERSIBLE
Dissolving sugar in water	Toasting bread
Freezing water	Cooking a cake
Melting chocolate	A candle melting

DISSOLVING - Sometimes when a solid (solute) is mixed with a liquid (solvent) it will dissolve to form a solution e.g. dissolving sugar in hot tea.

The solid seems to disappear in the solution but it is still there it has just become part of the liquid.

A soluble material can dissolve however an insoluble material cannot dissolve.

SEPARATING MIXTURES

SIEVING – a mixture of different sized solid particles can be separated with a sieve.

FILTERING – an insoluble solid can be separated from a liquid when passed through a filter. The liquid passes through the solid particles are trapped on the filter.

EVAPORATING – if a solution is boiled (heated) the water will evaporate into gas and the solid will be left behind.

HOOK JUNIOR SCHOOL

Name of Unit – Art – Egyptians (Year 5)

What I should already know

- how to use acrylic paints, pastels, pencils, collage materials
- how to create a variety of secondary colours through mixing
- how to apply different pressure with pencils and pastels

Key concepts- What I will know by the end of the unit

- how to explore **line** and **tone** in order to create proportion and perspective
- how to experiment with mark-making and **colour** to create texture and perspective
- how to consider composition in other artists' work and apply this to my own

Glossary of terms	Meaning
photography	The art of taking and processing photographs
mixed media	Using more than one medium in one piece of artwork (e.g. painting + drawing)
horizon	The line at which the earth's surface and the sky appear to meet
composition	The way the elements are arranged to create a piece
landscape	All the visible features of an area of land
experiment	Showing creativity in using a range of skills or mediums
proportion	The size of different parts in relation to each other
perspective	Creating the effect of three-dimensions on a two-dimensional surface
scale	The size of a specific part
effect	Achieving a particular outcome for the viewer
relief	A sculpted, three-dimensional piece attached to a flat, two-dimensional surface
blending	Combining/merging colours or tones together
three-dimensional	Having 3 dimensions (width, height and depth)
texture	The physical feel or appearance of a surface