Knowledge Organisers
1st Summer Term

Science

History

Geography

Art

PSHE

French

Computing

R.E.

P.E.

Swimming

Music

Year 4

Knowledge Organiser – Science – Year 4 – Electricity

| Key Vocabulary	Definition
electricity	energy made available by the flow of electric charge through a conductor
conductor	a substance that allows heat or electricity to pass through or along
insulator	a substance that does not allow heat or electricity to pass through or along
component	a part that can be separated from or attached to a system
circuit	an electrical device that provides a path for electrical current to flow
current	a flow of electricity through a wire or circuit
static electricity	static electricity is the build up of an electrical charge on the surface of an object. It's called "static" because the charges remain in one area rather than moving or "flowing" to another area like an electrical current.
electron	an elementary particle with negative charge
appliance	a device or machine often in your home that you use to do a job such as cleaning or cooking - appliances are often electrical
negative charge	having a surplus of electrons; having a lower electric potential
positive charge	having a deficiency of electrons; having a higher electric potential
electromagnet	a magnet which attracts metals only when electrically activated
atom	the smallest, indivisible constituent part or unit of something.

Uses Of Electricity In Our Daily Life
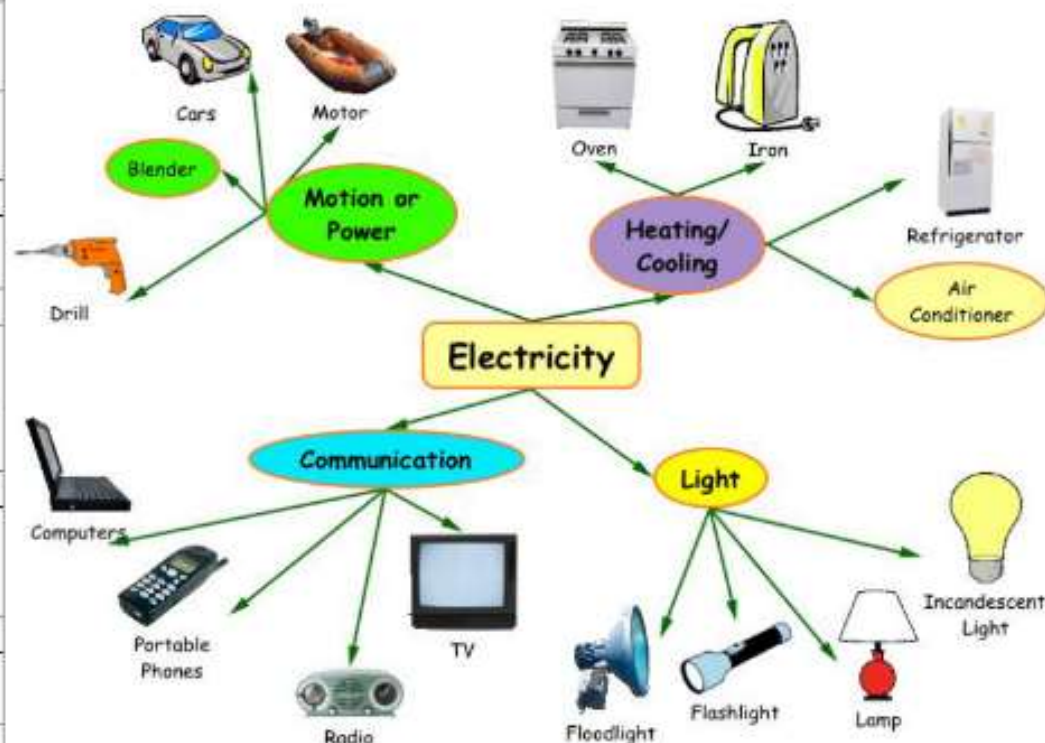
Key Knowledge
I know the main uses of electricity.
I know the components and symbols of a basic electrical circuit.
I understand the difference between a current and static electricity.
I understand the importance of conductors and insulators.
I know what an electromagnet is.

Electrical **circuits** can be represented as **circuit diagrams**.

A **battery** is the power source in a **circuit**. It has two terminals

positive terminal

negative terminal
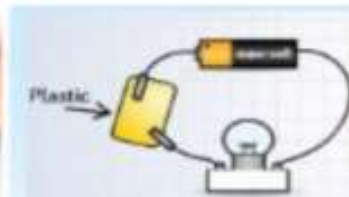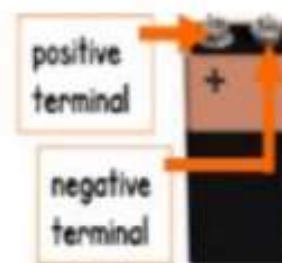
Plastic does **not conduct** electricity. We use plastic as an **electrical insulator**. Can you think of other materials that are electrical **insulators**.

Knowledge Organiser - History – Year 4 – Early Stuarts, Gunpowder and Civil War.

Key Vocabulary:	
Divine right of kings	The belief that kings are chosen by God and therefore should have all the power.
Plot	A secret plan made by a group of people to do something illegal or harmful.
The Gunpowder Plot	A plot, led by Robert Catesby, to blow up the Houses of Parliament on the 5th November.
Union of the crowns	When King James VI of Scotland became King James I of England, this united the two kingdoms under one crown.
Monteagle letter	The letter received from Lord Monteagle from Francis Tresham, warning him of the Gunpowder Plot. The letter was given to James I who was able to capture Guy Fawkes.
Treason	A crime where a person betrays their country. This includes trying to kill their king.

Key Knowledge:
I know the James I believed in the divine right of kings and didn't treat Catholics well.
I know that James I was unpopular with lots of people at the time.
I know that there was a plot to blow up the Houses of Parliament, known as the Gunpowder plot, led by Robert Catesby
I know that the plot was discovered when a letter was shown to the king, and Guy Fawkes was discovered with 36 barrels of Gunpowder

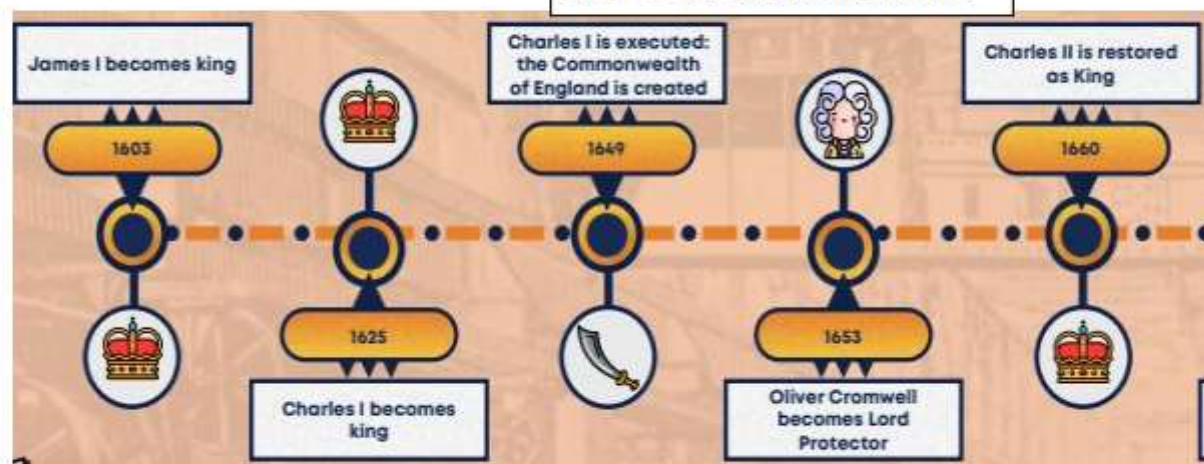| Key people		
James I	James I was the King of England (and Scotland). He was a Protestant and believed in the' divine right of kings'.	
Robert Catesby	He was the leader of the Gunpowder Plot.	
Francis Tresham	He wrote a letter to his friend telling him not to go to parliament.	
Guy Fawkes	He was a soldier and one of the plotters. He planned to blow up the Houses of Parliament and was caught.	

Houses of Parliament, London

James I becomes king — 1603

Charles I becomes king — 1625

Charles I is executed: the Commonwealth of England is created — 1649

Oliver Cromwell becomes Lord Protector — 1653

Charles II is restored as King — 1660

Knowledge Organiser – The South West – Geography – Year 4

Key Vocabulary	Definition
coastline	The line of the coast, where the land meets the sea
The Gulf Stream	A current of warm water that moves across the Atlantic Ocean before reaching the South West of England
county	England is split up into areas called counties, these areas have their own councils who make decisions about local issues
arable land	Land used for growing crops for farming
pastoral land	Land used for raising animals for farming
Area of Outstanding Natural Beauty	A special area of land that is protected because of its beauty and importance
moor	A large area of land where no crops are grown, often covered in heather
tourism	When people travel to an area for a holiday

Landmark	Image
Stonehenge	
Glastonbury Tor	
Tintagel Castle	
The Eden Project	

Key Knowledge
I understand that the coastline of the South West has been changed by erosion.
I know where the main cities/ towns are in the South West.
I understand that tourism is a major industry in the South West.
I understand that dairy farming is an important industry in the South West.

Knowledge Organiser - Design - Visual Arts - Year Four

Key Vocabulary	Definition
embroidery	The art of decorating cloth with stitches
Cross-stitch	Two diagonal stitches making up one stitch in the shape of an X
tapestry	A woven artwork made of wool
warp	Threads held tightly on a loom ready for the weft to pass over and under
weft	Coloured woollen threads that are passed in and out when weaving a tapestry
loom	A device to weave cloth and tapestry
motif	A pattern or image that is often repeated
applique	When fabric is cut out and sewn onto a larger piece of fabric to create a picture or pattern

Key Knowledge
I know what cross-stitch is.
I know what motifs and symbols are.
I know what a tapestry us.
I know how to weave.

Icarus by Kate Farrer 2012

Kate Middleton's Wedding Dress

Queen Elizabeth I coronation dress

A loom with warp and weft

Christ's Charge to Peter. Tapestry from original cartoon by Raphael

Knowledge Organiser – PSHE – Relationships - Year Four

Key Vocabulary

Relationship	The way in which two people, groups or countries behave towards each other or deal with each other.
Distant	Not having a close relationship with somebody.
Belonging	The feeling of being comfortable and happy in a particular situation or with a particular group of people.
Loss	The death of a person or something special.
Sadness	The feeling of being sad.
Memorial	A thing that will continue to remind people of somebody/something.
Vegetarian	A person who does not eat meat or fish.
Debate	A formal discussion of an issue at a public meeting or in a parliament. In a debate two or more speakers express opposite views and then there is often a vote on the issue.

Key Knowledge

I can identify the web of relationships that I am part of, starting from those closest to me and including those more distant.

I can explain different points of view on an animal rights issue.

I know how to show love and appreciation to the people and animals who are special to me.

ANIMAL RIGHTS
What Is It?

The **Jigsaw** Charter

We take turns to speak
We use kind and positive words
We listen to each other
We have the right to pass
We only use names when giving compliments or when being positive
We respect each other's privacy (confidentiality)

Reflective questions
Ask me this...

Who in your family and friends are special to you?

What feelings might people experience when they lose someone close to them?

What are your opinions on being a vegetarian?

Latin Knowledge Organiser - Unit 5: Romans and Britons

Key Vocabulary

Latin	English
ludunt	They play
sedent	They sit
equitāmus	They ride
colimus	They farm
pugnamus	They fight
ferōciter	fiercely
dīligenter	carefully
celeriter	quickly
et	and
tesserae	mosaics
ita vērō	yes
dīrēctae	straight
commodae	comfortable
nōbīscum	with us
viae	roads
villae	houses

Grammar

Words we use to talk about actions are called verbs, e.g. Candidus **is fighting**.

Words we use to add more information to a verb are called 'adverbs'. For example, celerit**er** equito - I ride quickly.
Adverbs in Latin often (but not always) end in -er.

UnitMotto
non dūcor dūcō = I am not led, I lead

Key Knowledge

To recap prior learning of masculine and feminine verb endings.
To translate simple sentences with verbs and adverbs.
To complete sentences by selecting the appropriate adverb.
To translate sentences with simple plural forms.
To compare and contrast traditional tales from different cultures.

Britons are best!

Rufus, Flavia and Candidus are kicking a ball. They sit down for a rest and begin to talk...
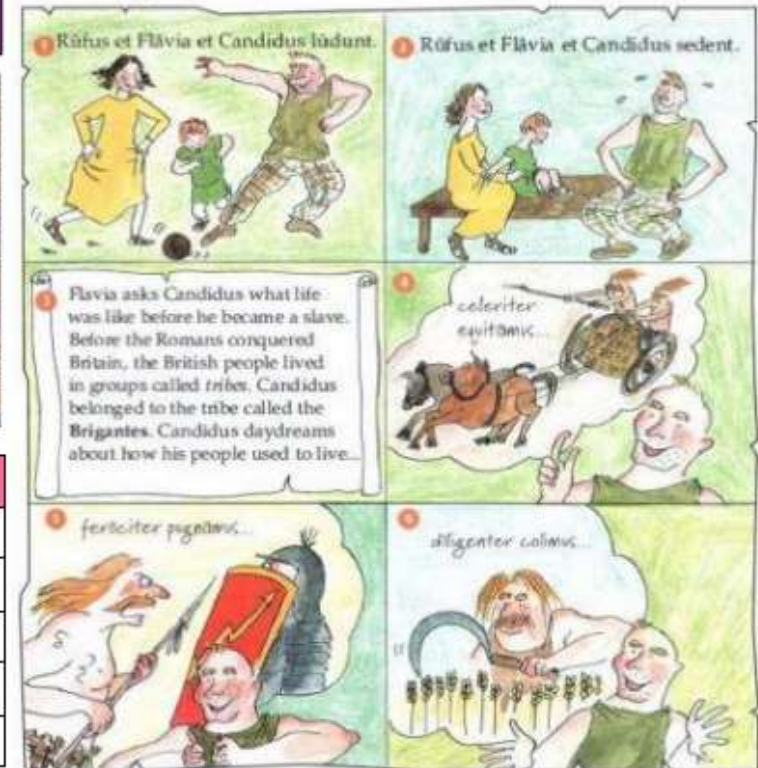
Knowledge Organiser- Repetition in Shapes – Computing – Year 4

Key Vocabulary	Definition
Program	the entire solution to the task, and an implementation of the algorithm as code
Turtle	an arrow or turtle image on screen that draws a line as it is programmed
Command	an instruction given to control a program
Code Snippet	this could be the same as a program; it can have several sets of commands in one program
Algorithm	the part of the design of the program that is precise instructions to be implemented as code
Debug	the process of finding and correcting errors in your code
Decompose	break something down into smaller parts
Procedure	a named code snippet that can be run multiple times.

Key Knowledge:

To identify that accuracy in programming is important
To create a program in a text-based language.
To be able to explain what 'repeat' means
To modify a count-controlled loop to produce a given outcome.
To decompose a task into small steps
To create a program that uses count-controlled loops to produce a given outcome.

Sequencing and Algorithms

-A **sequence** is a pattern or process in which one thing follows another.

-We design **algorithms** (sets of instructions for performing a task) to help us program the sequence that we require to achieve our desired outcomes.

-**Programming** is the process of keying in the code recognized by the computer (using your algorithm).

Trialling and Debugging

-Programmers do not put their computer programs straight to work. They **trial** them first to find any errors:

-Sequence errors: An instruction in the sequence is wrong or in the wrong place.
-Keying errors: Typing in the wrong code.
-Logical errors: Mistakes in plan/thinking.

-If your algorithm does not work correctly the first time, remember to **debug** it.

The Basics of FMS Logo

-**What is FMS Logo?** Logo is a text-based programming language, where we can type commands which are then drawn on the screen.
-Logo helps us to learn how to use programming language, whilst also being creative and using problem-solving skills.

The Display:

The Turtle

Command History and Error Messages

Next Command
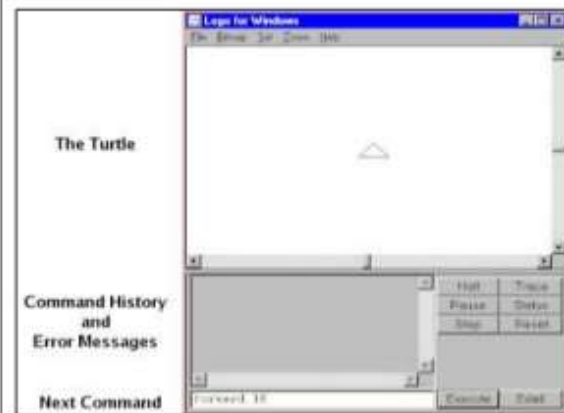
Basic Commands:

-FD: Forwards. Always followed by a space and the number of steps, e.g. FD 50
-BK: Backwards. As above, e.g. BK 50
-LT: Left turn. Always followed by a space and then the degrees to turn, e.g. LT 90
-RT: Right turn. As above, e.g. RT 90
-CS: Clears any pen marks on your screen and gets the turtle back to the centre.
-PU: Stops turtle from leaving a pen trail.
-PD: Makes turtle leave a pen trail again.

Programming Patterns

-**Patterns:** Patterns are things that repeat in a logical way. In everyday life, patterns are everywhere!

-**Patterns in Logo:** Instead of typing in the code to create each individual shape, we can save time by repeating a sequence of instructions. We use the 'repeat' function.
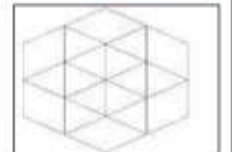
-**Repeat:** Type the command 'repeat' — this repeats commands a set number of times. The number following repeat is the number of times to repeat the code, and the code to be repeated is in square brackets, e.g. repeat 4 [FD 100 LT 90]

The above code will repeat FD 100 LT 90 four times.
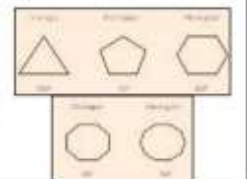
-**Creating Shapes and Loops:** To make shapes, we need to know the angles of corners of different shapes (see right). Using the repeat function with shapes can help us to make spirals.

Knowledge Organiser – PE – Dodgeball - Year Four

Key Vocabulary	Definition
Agility	The ability to change direction quickly
Caught Out	When a player catches an opponent's ball deeming them out
Hit Out	When a player in dodgeball is hit below the shoulders by a live ball
Communicate	Share information
Tactic	To make a plan or strategy

Skill Development

Dodge	• Stay towards the back of the court. • Be aware of your opponents who are holding a ball • Get ready to move quickly away from the ball that is being throw • Jump, Duck or Dive to avoid being hit out.
Throwing	• When throwing, you should position yourself close to the line separating the two teams this gives you the best chance of hitting an opposition player. • Stand side on whilst pulling your throwing arm back. Outstretch your non-throwing arm towards your target. • Push forward with your throwing arm and release the ball while shifting your weight onto your front leg. • Tip – Aim to throw the ball towards the lower part of your opponents body as this makes it harder for them to dodge.

Skills

Dodge	
Throw	
Catch	

R.E. Year 4 Summer 1 Knowledge Organiser
What motivates Humanists to lead good lives?

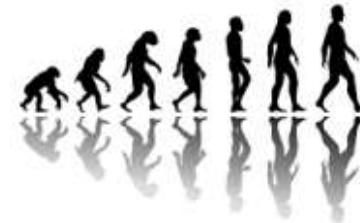| Key vocabulary	Definition
Humanism	A non-religious worldview that approaches life by learning from their own or other experiences in order to inform their decisions and others.
Choices	Deciding between two or more possibilities and having the freedom to make this choice.
Golden Rule	A belief Humanists life by, to treat others as you would like them to treat you.
Global Warming	Increase in Earth's temperature caused by the carbon dioxide we give of as humans and the things we do.
Evolution	The process by which living things gradually change over time.
Big Bang Theory	The idea that the universe began as just a single point, then expanded and stretched to grow as large as it is now.

Key Knowledge
I can discuss what is a 'good' life.
I know the rules a Humanist might choose to live by to live a 'good' life.
I know what a Humanist might believe about how the world began.
I can discuss what actions a Humanist may take to live a 'good' life.
I can talk about what would motivate me to lead a better life.

Core Knowledge:
Humanists value freedom, empathy, reason, and human rights. Humanists believe there is no evidence of God, and science gives many answers to things previously attributed to Gods. They believe we have one life, and therefore need to make the best of it. This includes treating humans and other living things ethically, fairly, and positively. It Is important to also take personal responsibility for our actions and believe that we have the potential to create great things which will benefit humanity and future generations.

Key Vocabulary	Definition
Time signature	The rhythm following a clef
Key signature	The key of a piece of music depends on the flats and sharps in the music.
Minim	
Crotchet	
Dotted crotchet	
Quaver	
Accompaniment	Music composed to support another musician (piano/band)
Dynamics	ff, pp, mp, mf, p, f
Gospel	Traditional Christian music
Orchestral	An ensemble of instruments

Key Signature: C major — there are no sharps or flats in the key signature

C D E F G A B

How many beats per measure
What note gets one beat

Time Signature: 4/4 — there are four crotchet beats in a bar

Key Signature: G major — there is one sharp in the key signature

G A B C D E F#

Key Signature: B♭ major — there are two flats in the key signature

B♭ C D E♭ F G A

Songs covered

- Train is A-Comin'
- Oh happy days
- A world full of sound

Key Vocabulary	Definition
Sculling	Using quick movements of the hands to keep the head above the water. Sculling can be done head or feet first.
Treading Water	A survival technique used to keep the head above the water.
Submerge	The act of going under the water.

Skills	
Breaststroke legs	
Treading water	
Breathing when swimming	

Skill development
Swim competently, confidently and proficiently over a distance of at least 25m.
Use a range of strokes effectively (for example, front crawl, backstroke and breaststroke.
Perform safe self-rescue in different water-based situations.