

Knowledge Organisers

1st Spring Term – Cycle B

Art/DT

Computing

French

Geography

History

Music

PE

PSHE

RE

Science

Birch Class

Knowledge Organiser –Dyson Engineering - Design Technology - Year Five/Six – Cycle B

Key Vocabulary:

Open Switch	When a switch is positioned such that electricity cannot flow through it.
Closed Switch	When a switch is positioned such that electricity can flow through it.
Output devices	Components that produce an outcome e.g. Bulbs, buzzers, motors
Input devices	Components that are used to control an electrical circuit e.g. Switches or sensors
Design brief	A document for a design project developed by a person or team. They outline the details of the project including any the function, aesthetics, timing and budget.
Innovation	A new method, idea or product.
Function	How something works or operates in a particular way
Purpose	The reason for which something is done or created or for which something exists.
Aesthetics	How something looks or what something sounds like.
Prototype	A first version of a product from which others are developed.

Key Knowledge:

I know who James Dyson is.
I know how fans have been innovated over time.
I understand how to create an electrical circuit for a fan mechanism.
I know that sketching is important in the design process.
I understand how prototypes help a product to evolve.



James Dyson
James' frustration with the vacuum bag encouraged him to rethink it, and use a cyclone design instead.



Push-to-make switch

When you push, the electricity flows through the circuit, but when you release it the switch goes off.



Push-to-break switch

The switch is off while the button is pushed, but returns to its 'on' position when button is released.

Reed switch

Activated by a magnet which closes the contacts



Tilt switch

When tilted a ball causes contacts to close.



Battery



Wire



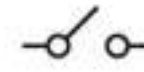
Bulb



Buzzer



Motor

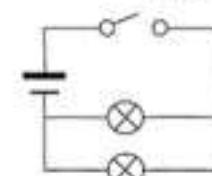


Switch (off)

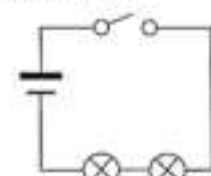


Switch (on)

Circuit Types



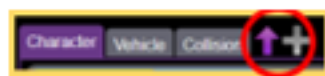
Parallel Circuit



Series Circuit

Key Vocabulary	Definition
Alert	A type of output. It shows a pop up of text on the screen.
Algorithm	A precise, step by step set of instructions used to solve a problem or achieve an objective. A flowchart is a type of algorithm.
Debug/Debugging	Looking for any problems (bugs) in the code, fixing and testing them.
Decomposition	Breaking a problem down into smaller sections so that the problem is more manageable and easier to understand.
Function	A type of procedure or routine.
Get Input	This puts the text that a user types into the computer's temporary memory, so that it can be used to control the program flow.
If/Else sequence	A conditional command. This tests a statement. If the condition is true, then the commands inside the 'if block' will be run. If the condition is not met, then the commands inside the 'else block' will run instead.
Sequence	This is when a computer program runs commands in order. This could include 'repeat' or a timer.
Selection	This is a conditional/decision command. When a selection is used, a program will choose a different outcome depending on a condition.
Simulation	A model that represents a real or imaginary situation.
String field	A variable field that has a limit of 255 characters. Excellent to use for small pieces of data, such as names, addresses, or other simple data.
Tab	Allows you to move between blocks of code on different pages.
Text field	A variable field that has a limit of 30,000 characters. Good for storing a comment box on a form, or if you are inputting a large amount of text.

Key Learning
<ul style="list-style-type: none"> I know how to design and develop a complex algorithm including flowcharts. I know how to code, test and debug using these designs. I know how to use functions and tabs in a coding program to improve the quality of a code.



An example of tabs along the top of a set of code, separated into Character, Vehicle and Collision. You can create more tabs and name them.



An example of a function. This function is designed so that when the `btnsquare` is clicked, the program "calls" the code for creating a square.

This means a square will be drawn every time the button is pressed.

Knowledge Organiser Year 5/6 Cycle B French Unit 9: Ma journée

Key Language	English
je me lève	<i>I get up</i>
je prends mon petit déjeuner	<i>I have breakfast</i>
je vais à l'école	<i>I go to school</i>
je prends mon déjeuner	<i>I have lunch</i>
je quitte l'école	<i>I leave school</i>
je prends mon dîner	<i>I have my eve.meal</i>
je me couche	<i>I go to bed</i>
à six heures cinq/dix,	<i>at 6.05/6.10</i>
à six heures vingt/vingt-cinq,	<i>6.20/6.25</i>
et quart /et demi(e)	<i>quarter/half past</i>
à sept heures moins vingt-cinq	<i>at 6.35</i>
à sept heures moins vingt/dix/cinq	<i>at 6.40/6.50/6.55</i>
moins le quart	<i>quarter to</i>
un chocolat chaud	<i>a hot chocolate</i>
un café	<i>a coffee</i>
un jus de pomme	<i>an apple juice</i>
un croissant	<i>a croissant</i>
un pain au chocolat	<i>a pain au chocolat</i>
des céréales	<i>some cereal</i>
une tartine	<i>bread and butter</i>
Qu'est-ce que tu prends	<i>What do you have?</i>
je prends.....	<i>I have ...</i>
normalement	<i>normally</i>
d'abord/ensuite/enfin	<i>first/next/finally</i>
après l'école	<i>after school</i>



D'abord, je me lève à sept heures et demie.



Ensuite, je prends mon petit déjeuner à huit heures moins vingt.



Enfin, je vais à l'école à huit heures vingt.



Je quitte l'école à trois heures et quart.

Key Questions

Tu te lèves à quelle heure?

What time do you get up?

Qu'est-ce que tu prends au petit déjeuner?

What do you have for breakfast?

Knowledge Organiser – South America – Geography – Year 5/6 – Cycle B

Key Vocabulary	Definition
Pangea	A supercontinent that broke apart 175 million years ago forming the continents we recognise today.
Rainforest	A dense forest, rich in biodiversity, that is often found in tropical areas that receive high levels of rainfall.
Subduction Zone	An area where one tectonic plate is being forced under another, often creating mountain ranges.
Plateau	A flat area of land with high altitude.
Altitude	The height of a location, often relative to sea level.
Deforestation	The process of removing forest.
Biodiversity	The variety of plants and animals within a habitat.

Key Knowledge
I know South America is a continent located in the Western Hemisphere and the countries within it include Brazil, Chile and Argentina
I know the Incan Empire was located in South America and it has a challenging geography.
I understand the different terrain of The Andes mountains.
I know farming and energy production are important to Brazil's economy.
I understand that deforestation is a major threat to biodiversity in the Amazon Rainforest.

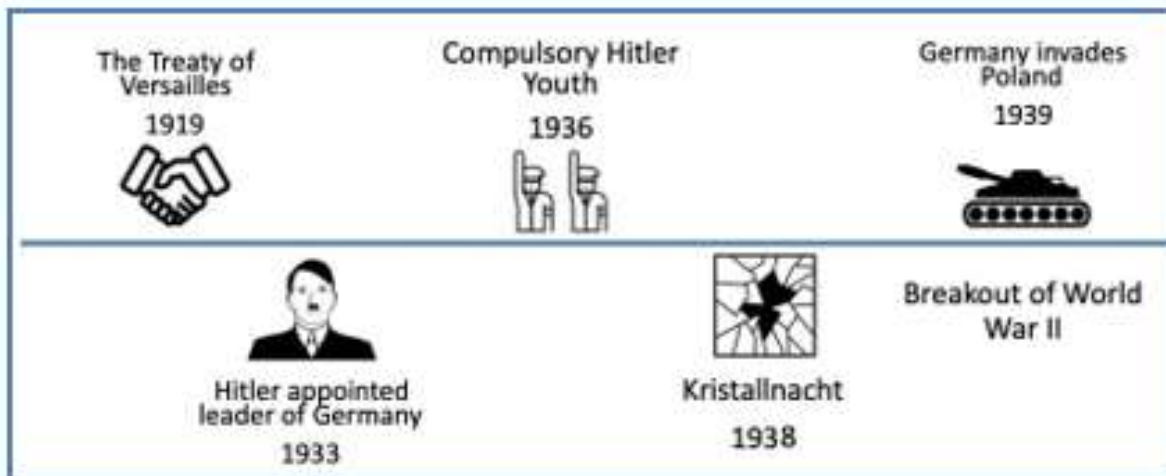
<u>The Incan Empire</u>			
Location	Dates	Places	Language and Communication
The Incan Empire spread along the Pacific coast from Ecuador to Chile.	Began in 1100 CE Reached its height in 1530 Declined in 1535	Cuzco- the Incan Capital located in Peru built in the shape of a puma Machu Picchu- high in the Andes mountains	Quechua (Ketch-ash) the single Incan language, spread across the empire, to encourage clarity of communication. Quipu: lengths of knotted string, used to keep records and pass messages around the empire.



Knowledge Organiser- The Rise of Hitler and WWII – History - Year 5/6 – Cycle B

Key Vocabulary	Definition
Armistice	An agreement made between opposing sides in a war to stop fighting.
Treaty of Versailles	A document signed in 1919 to officially end the war between Germany and the Allied Powers and to outline punishments enforced upon Germany.
Nationalism	Support for a nation and its interests, often putting that nation above others.
Adolf Hitler	A German Politician and leader of the Nazi party, his decisions led to the deaths of thousands of people.
Aryan Race	A group of people the Nazis viewed to be superior than others. Aryan features included blue eyes and blonde hair.
Assassinate	The murder of a person for political or religious reasons.
Concentration Camp	A place where people are imprisoned in harsh conditions, without usual legal processes such as a trial.
Refugee	A person who has been forced to leave their country, seeking refuge in order to escape war, persecution, or natural disaster.
Blitzkrieg	A German word meaning 'Lightning War', intensive or sudden military attacks.
Coalition	A unity government formed with members of different political parties.

Key Knowledge
I understand that after WWI, many German people were unhappy with the armistice and the Treaty of Versailles.
I know that after World War 1, Adolf Hitler became leader of the Nazi Party in Germany.
I understand howThe Nazi party controlled many aspects of life in Germany.
I understand what Kristallnacht means and what happened on this night.
I know that World War II began when Germany invaded Poland in 1939.



Winston Churchill – Prime Minister of Great Britain from 1940 to 1945

Knowledge Organiser – PE – Basketball - Year Five/Six Cycle B



Key Vocabulary	Definition
Dodge	To avoid someone or something by a sudden quick movement.
Intercept	To obstruct the ball to prevent it from getting to its destination (an opponent or goal).
Creating space	To move into an area that is unoccupied in order to continue attacking the basket.
Attacking	To make an attempt to score a goal or gain an advantage.
Defending	Protecting a goal or attempting to stop the opposition from scoring.



Rules	
Illegal dribble	You cannot dribble with two hands at the same time or dribble again after catching the ball.
Travelling	You cannot walk or run while holding the ball; so in order to move on court you must dribble.
Personal foul	You cannot make unfair contact on an opposing player.

Skills

Dodging



Intercepting



Creating space

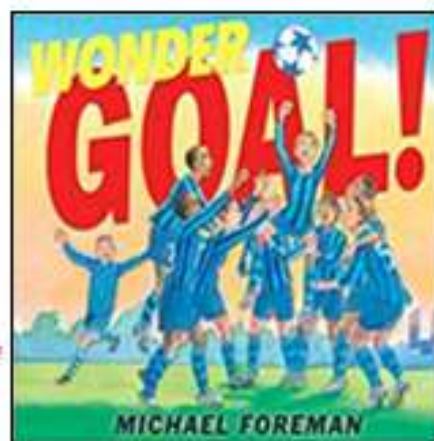


Knowledge Organiser – PSHE – Dreams and Goals - Year Five/Six – Cycle B



Vocabulary	
Motivation	A desire or willingness to do something.
Empathy	The ability to understand and share the feelings of another.
Sponsorship	The financial support received from a sponsor.
Achievement	A thing done successfully with effort, skill, or courage.
Success	The accomplishment of an aim or purpose
Global	Relating to the whole world; worldwide.
Contribution	To achieve something together with other people.
Compliment	A polite expression of praise or admiration.
Recognition	Appreciation or acclaim for an achievement, service, or ability.

Key Knowledge
I know my learning strengths and set challenging but realistic goals for myself.
I can identify problems in the world that concern me and talk to other people about them.
I can describe some ways in which I can work with other people to help make the world a better place.




Reflective questions
Ask me this...
How might you achieve your personal goals?
What does your goal say about you?
How can you help to make the world a better place?

R.E. Year 5/6 Spring 1 Knowledge - Cycle B

Organiser Key Line of Enquiry: Is anything ever eternal? |

Key vocabulary	Definition
Eternal	Lasting forever, without end
Unconditional	Complete and without and conditions attached
Agape	The highest form of love of God for man – unconditional love
Resurrection	The rising of Christ from the dead
Ten commandments	The laws/rules handed to Moses on Mount Sinai by God setting out how a good Christian should live their life
Parable	a simple story used to illustrate a moral or spiritual lesson, as told by Jesus in the Gospels

Key Knowledge
I know that eternal means to last forever and can name somethings that I believe are eternal.
I know some Bible stories that explain unconditional love to Christians.
To know what Jesus taught about forgiveness – that it should be unconditional too.
To know Christians believe that for eternal life, they need to believe in God and do their best to follow the 10 commandments and ask for forgiveness when they need it.
I can say the impact on the world if everybody loved thy neighbour.



THE TEN COMMANDMENTS FOR KIDS

1. PUT GOD FIRST.
2. DO NOT MAKE FAKE GODS.
3. RESPECT GOD'S NAME.
4. RESPECT GOD'S DAY OF REST.
5. RESPECT YOUR PARENTS.
6. DO NOT KILL PEOPLE.
7. RESPECT MARRIAGE PROMISES.
8. DO NOT STEAL.
9. DO NOT LIE.
10. DO NOT BE JEALOUS.

Christians believe that God's love is eternal and unconditional and this was made possible through Jesus' death and resurrection. Christians also believe that this made forgiveness possible and Christians should strive to follow the 10 commandments to live a good life and that by doing this, they can have eternal life in heaven.

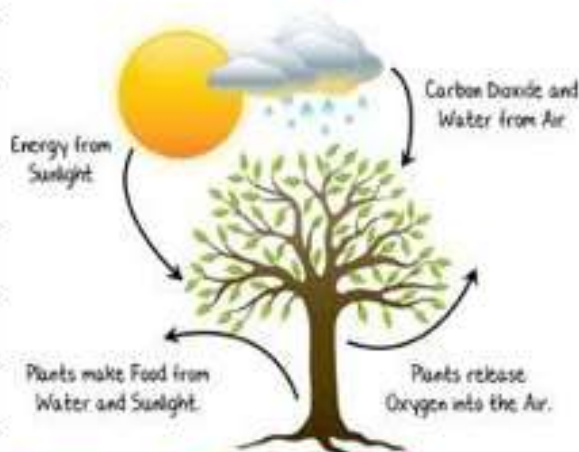
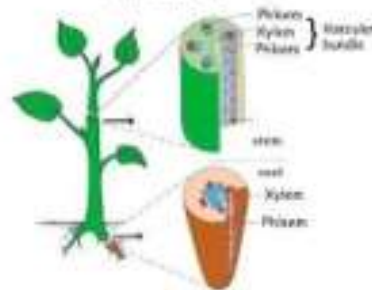
Jesus taught the importance of forgiveness through short stories called parables such as the forgiving father, and the sheep and goats



Knowledge Organiser – Plants – Science – Year 5/6 – Cycle B

Key Vocabulary	Definition
botanist	expert in the study of plants.
roots	take up water and nutrients from the soil, keep the plant steady and upright in the soil; they "anchor" the plant.
stem	carries water and nutrients to different parts of the plant
flower	reproductive organ for a plant
carbon dioxide	needed for photosynthesis to take place
chlorophyll	a green pigment that absorbs light and is used in photosynthesis
chloroplast	an organelle where photosynthesis occurs
photosynthesis	the process by which a plant makes food
xylem	tissue that carries water upwards from the root to every part of the plant
phloem	tissue that transports nutrients from the leaves
transpiration	the emission of water vapour from the leaves of the plant
capillary action	movement of water through the plant
stomata	small opening son the surface of the leaf which control when gases enter or leave the lead
vascular plant	has roots, stem and leaves to enable water and nutrients to travel through the plant
non-vascular plant	does not have roots or s stem for the transportation of water and nutrients

The Structure of the Stem and the Root



Key Knowledge
I know the parts of a plant and flower and their functions.
I know the main stages in the life cycle of a flowering plant.
I understand that plants make their own food using a process called photosynthesis.
I understand how photosynthesis works and that plants contain chlorophyll.
I understand the similarities and difference between vascular and non-vascular plants.

Parts of a Plant

