

# Knowledge Organisers

## 2<sup>nd</sup> Autumn Term

Science

Geography

History

Art/DT

French

PSHE

Music

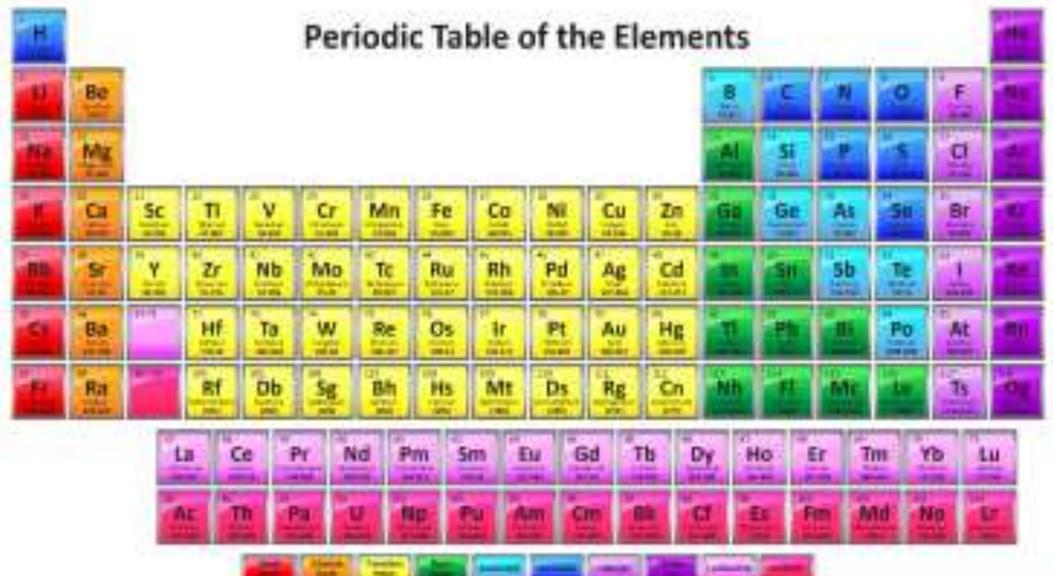
P.E

R.E

**Year 5**

# Knowledge Organiser – Science – Chemistry – Y5

Key Vocabulary:	
Evaporation	The process of changing a liquid into a gas.
Condensation	The process of change from a gas into a liquid.
Dissolve	When a solid becomes part of a liquid.
Filter	To separate fine solid particles from a liquid.
Solution	A liquid that has a solid dissolved in it.
Soluble	When a solid dissolves in water it is said to be soluble.
Insoluble	When a solid will not dissolve.
State	All matter exists in one of these three states: solid, liquid, ,gas.
Atom	A piece of matter, made up of subatomic particles: protons, neutrons and electrons.
Proton	In the centre of an atom and they have a positive charge.
Neutron	In the centre of an atom and they have a negative charge.
Electron	Orbiting the atom and they have a negative charge.



The meaning of the symbols

Key Knowledge:	
I know some elements and their symbols.	
I understand the size of an atom and how it cannot be seen with the naked eye.	
I understand the structure of an atom.	
I can explain my knowledge of atoms and the elements that they create.	
I can design a fair test and make predictions about a solution.	

Diagram illustrating the Helium element symbol (He) and its atomic number (2). Labels indicate: (Atomic number) The number of protons. Must contain 2 electron; Symbol for the element; Name of element; (Atomic mass) Protons and neutrons added together.

Diagrams illustrating Soluble vs. Insoluble and Solution. The 'Soluble vs. Insoluble' diagram shows a glass of water with a yellow substance that has dissolved. The 'Solution' diagram shows a beaker with a blue liquid (Solvent) and yellow particles (Solute) dissolved in it.

Grid of elements with applications:

- Potassium (K): Fruits and Vegetables
- Calcium (Ca): Shells and Bones
- Scandium (Sc): Bicycles
- Titanium (Ti): Aerospace
- Vanadium (V): Springs
- Rubidium (Rb): Global Navigation
- Strontium (Sr): Fireworks
- Yttrium (Y): Lasers
- Zirconium (Zr): Chemical Pipelines
- Niobium (Nb): Mag Lev Trains
- Cesium (Cs): Atomic Clocks
- Barium (Ba): X-Ray Diagnosis
- Rare Earth Metals (57-71): Rare Earth Metals
- Hafnium (Hf): Nuclear Submarines
- Tantalum (Ta): Mobile Phones

### Parts of an Atom

Diagram of an atom showing the nucleus (protons and neutrons) and electrons orbiting. Legend:

- NEUTRON**: no charge, part of the nucleus
- PROTON**: positively charged, part of the nucleus
- ELECTRON**: negatively charged, around the nucleus

## Knowledge Organiser- Mountains - Geography - Year 5

Key Vocabulary	Definition
peak	The top of the mountain.
range	A group of mountains.
Edmund Hillary 	A well-known mountaineer from New Zealand who was one of the first to climb Mount Everest in 1953.
Tenzing Norgay 	Edmund Hillary's mountaineer guide who also climbed Mount Everest in 1953.
The Andes	A mountain range in South America that stretches from the southern tip of the continent to the Caribbean coast.
Machu Picchu	A famous Inca city built on top of a mountain in the Andes.
Mount Kilimanjaro	The tallest mountain in Africa.
erosion	The process of something being worn down or destroyed over time.

### Key Knowledge:

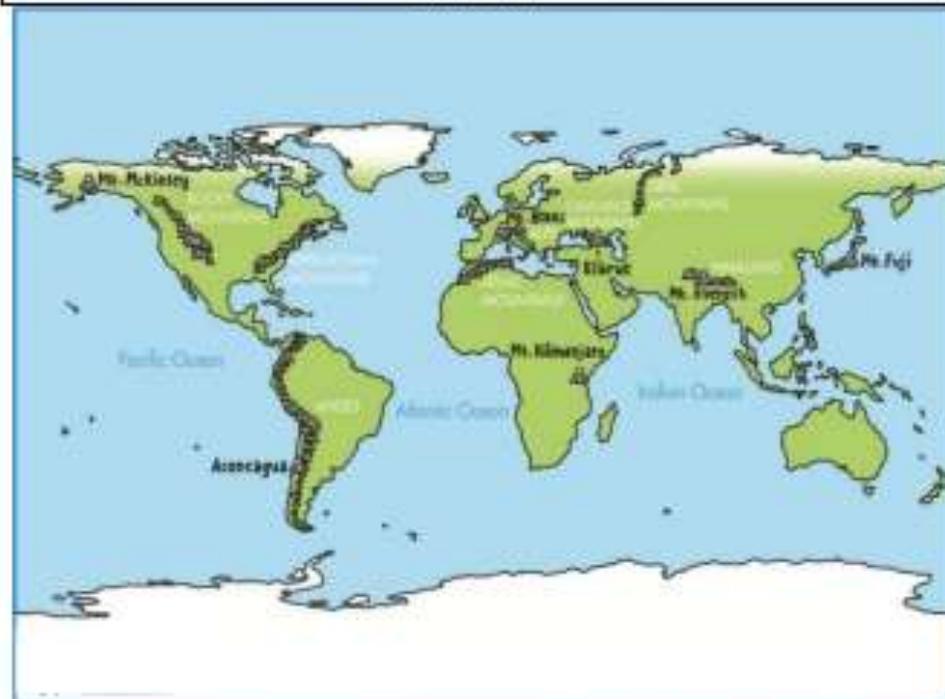
I know what a mountain is.

I understand the key features of the Alps.

I understand what it might be like to climb the Himalayas.

I know the key features of American mountain ranges.

I know the key features of African mountains and how these are different.



The Alps in France

The Himalayas

Machu Picchu

Blue Ridge Mountains

Rocky Mountains in Colorado

Mount Kilimanjaro

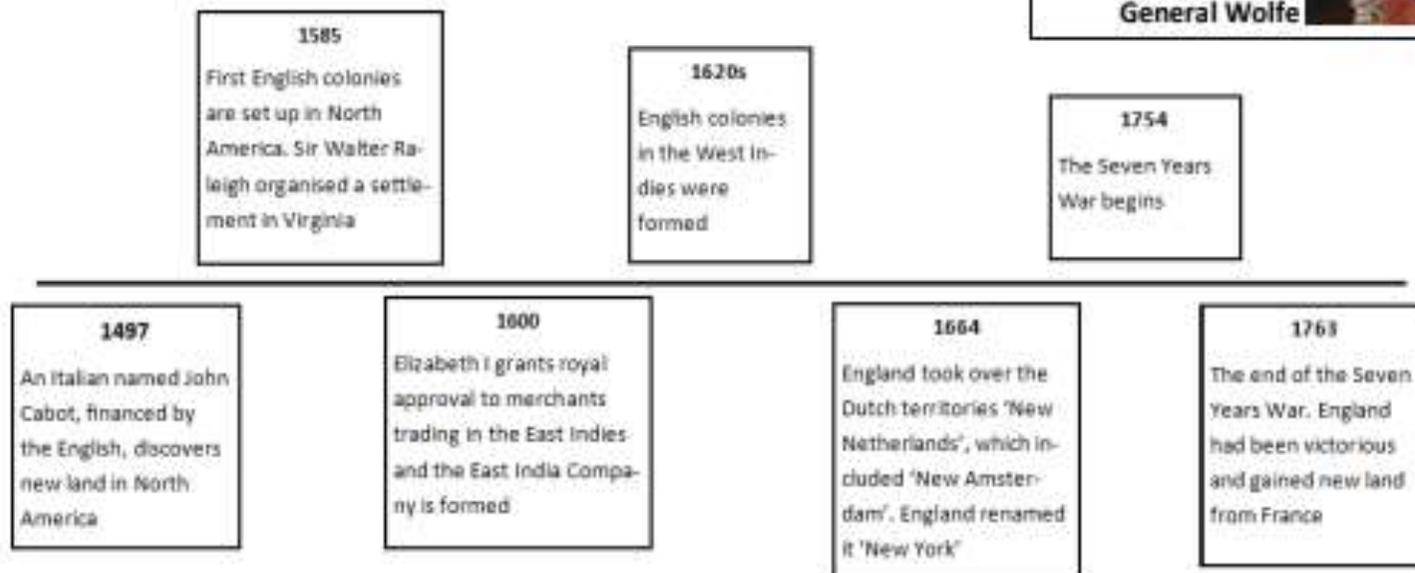


## Knowledge Organiser: The Birth of the British Empire – History - Year 5

Key vocabulary	Definition
<b>Empire</b>	An empire is a group of countries ruled over by a single monarch or ruler
<b>Imperial</b>	Belonging or relating to an empire
<b>Trade</b>	Buying, selling or exchanging goods between people, companies or countries
<b>Colony</b>	A country or area controlled by another country that is often far away
<b>Slave</b>	A person who is owned by another person and has to obey them
<b>Merchant</b>	A person involved in trading goods

Key people	
 <b>John Cabot</b>	An Italian explorer, funded by England, who 'discovered' lands in North America
 <b>Sir Walter Raleigh</b>	Founded a colony in Virginia
 <b>Major-General Robert Clive</b>	A military commander who helped secure an Indian empire for Britain
 <b>Elizabeth I</b>	Queen of England 1508-1603. She gave royal approval to the East India Company
 <b>General Wolfe</b>	He led Britain to victory at the Battle of Quebec

### Timeline



### Key Knowledge:

- I know that Britain had an empire.
- I understand the origins of the British Empire in global trade.
- I understand why and how British control spread through India after 1750.
- I understand why the victories of the Seven Years War led to patriotism in Britain.
- I can use my learning to understand why Britain wanted an empire and how it wanted to project a powerful image around the world.

## Knowledge Organiser – African Art - Visual Arts – Year Five

### Key Vocabulary:

peoples	Members of a particular nation or community.
ceremony	A social or religious occasion often celebrating a particular event.
Bamana peoples	A group of peoples living mainly in Mali, Western Africa.
headdress	A covering for the head, especially worn in ceremonies.
Edo peoples	A group of peoples living mainly in southern Nigeria.
Benin City	A city in southern Nigeria, West Africa. Benin City flourished from the 14th-17th centuries as the centre of the Benin Kingdom.
plaque	A flat, decorated slab, often square or rectangle that is fixed, to a wall or other surface and remembers an event or a person.
relief	Where sculptures stick out from a flat surface, rather than being made all the way around
cast	The process of making an object by shaping liquid metal in a mould.
brass	A metal made by mixing two other metals, copper and zinc.
ivory	A hard, white substance, made from the tusks of elephants, which can be carved.



Antelope Headdress, Mali (Bamana peoples) 19<sup>th</sup> century/early 20<sup>th</sup> century (Metropolitan Museum of Art, U.S.)



Benin Plaque, Nigeria (Edo peoples) 16<sup>th</sup> century (British Museum)



Benin Ivory Mask of Queen Mother, Nigeria (Edo peoples) 16<sup>th</sup> century (British Museum)



Benin Ivory Salt Cellar, Nigeria (Edo peoples) 17<sup>th</sup> century (British Museum)

### Key Knowledge:

I know that the Bamana people from Mali carve antelope headdresses to use in the Chiwara ceremony.
I understand what Malian antelope headdresses represent.
I know that the Benin Plaques are cast brass plaques made to decorate the royal palace in Benin city.
I know that trade between the Edo peoples and the Portuguese is shown in Benin art.
I understand that British forces took artworks from Benin City and some people think they should be returned.



# Knowledge Organiser Year 5 French Unit 2: À l'école

Key Language	English
le français	French
le dessin	Art
le sport	P.E.
l'anglais	English
l'histoire-géo	History/Geog
l'informatique	I.T.
l'éducation religieuse	R.E.
la musique	Music
les sciences	Science
les maths	Maths
J'aime	I like
Je n'aime pas	I don't like
C'est bien/C'est facile	It's good/easy
C'est cool/C'est intéressant	It's great/interesting
C'est nul/C'est difficile	It's rubbish/difficult
Quelle heure est-il?	What time is it?
Il est une heure et quart	It's 1.15
Il est une heure et demi(e)	It's 1.30
Il est deux heures moins le quart	It's 1.45
Il est midi / minuit	It's midday/midnight
le déjeuner	lunch
la récré	break
l'école	school
commence/fini à	starts/finishes at



J'aime le dessin.  
C'est cool.



Je n'aime pas  
les sciences.  
C'est difficile.

J'aime l'histoire-géo.  
C'est intéressant.



J'aime les maths.  
C'est facile.



## Key Questions

C'est quelle matière?

What subject is it?

Tu aimes les sciences?

Do you like science?

Quelle est ta matière préférée?

What's your favourite subject?

Quelle heure est-il?

What time is it?

L'école commence à quelle heure?

What time does school start?

## Knowledge Organiser – PSHE – Celebrating Difference - Year Five

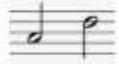
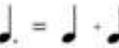
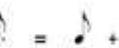


Key Vocabulary	Definition
<b>Culture</b>	The ideas, customs, and social behaviour of a particular people or society.
<b>Conflict</b>	In opposition; a disagreement or argument.
<b>Racism</b>	The belief that people of some races are inferior to others.
<b>Race Discrimination</b>	This happens when racial groups are at a disadvantage to others.
<b>Homophobic</b>	Having or showing a dislike of or prejudice against homosexual people.
<b>Rumour</b>	A story or report of uncertain or doubtful truth.
<b>Bullying</b>	Behaviour that is repeated, intended to hurt someone either physically or emotionally.
<b>Cyber bullying</b>	The use of electronic communication to bully a person, typically by sending messages of an intimidating or threatening nature.

Key Knowledge
I can explain the difference between direct and indirect bullying.
I understand that cultural differences sometimes cause conflict and I know what racism is.
I can compare my life with people in the developing world.



Reflective questions
Ask me this...
How might it feel to be discriminated against because of your race or appearance?
Do you understand the different types of bullying?

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.
Tempo	The speed at which music is played <i>Moderato</i> – Moderate speed (112 bpm)
Rhythmic patterns using:	Minims: 
	Dotted crochets: 
	Quavers: 
	Dotted Quavers: 
	Semiquavers: 
Accelerando	To get faster

Songs Covered	
The Sparkle In My Life	Style: Pop.
Dreaming Of Mars	Style: 20 <sup>th</sup> and 21 <sup>st</sup> Century Orchestral
Get On Board	Style: Gospel

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



**Key Signature: E $\flat$  major** – there are three flats in the key signature

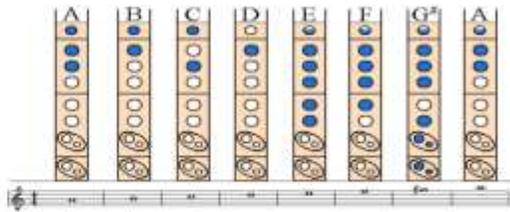


**Key Signature: F major** – there is one flat in the key signature

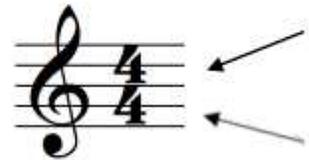


### Improvise Together

**Recorder A Minor Scale and Finger Chart.**



**2/4 Time Signature**



**Top Number**  
2 beats every bar

**Bottom Number**  
Quarter (crotchet) beat

### Notes you composed with...

E $\flat$  F G A $\flat$  B $\flat$  C D

Key Vocabulary	Definition
<b>Canon</b>	When performers complete the same physical action one after another.
<b>Unison</b>	When performers complete the same physical action at the same time.
<b>Mirroring</b>	To copy the actions and moves of a partner.
<b>Inverted balance</b>	An action where your hips go above your head such as a shoulder stand, bridge and cartwheel.

Skills	
<b>Backward roll</b>	
<b>Mirroring</b>	
<b>Inverted balance</b>	

### Skill Development

- To be able to perform symmetrical and asymmetrical balances.
- To develop the straight, forward, straddle and backward roll.
- To be able to explore different methods of travelling, linking actions in both canon and synchronisation.
- To be able to perform progressions of inverted movements.
- To explore matching and mirroring using actions both on the floor and on apparatus.
- To be able to create a partner sequence using apparatus

**R.E. Year 5 Autumn 2 Christianity Knowledge Organiser**  
**Enquiry: Is the Christmas Story True?**

Key vocabulary	Definition
incarnation	God as a human – as Jesus.
nativity	The birth of Jesus.
Truth	Something that is accurate
Gospel	Meaning 'good news' – stories about Jesus' life.



What does *true* mean?

How are the accounts of The Christmas Story by Luke and Matthew different?

What makes The Christmas Story true for Christians?

What do Christians believe about Incarnation?

**Key Knowledge**

I know the different accounts of the Christmas story

I can explain the meaning of incarnation

I can give my opinion on whether a favourite story is 'true' and explain why

I can identify different sources of the Christmas story and explain the meaning of Christmas to Christians (Incarnation)

I can explain my opinion on whether the Christmas story is true and say what Christians might think of my opinion

