

# **Knowledge Organisers**

## **1<sup>st</sup> Summer Term**

**Science**

**History**

**Art**

**PSHE**

**Computing**

**Latin**

**R.E.**

**Music**

**Swimming**

**Class 2**

## Knowledge Organiser - Light and Optics – Year 3

### Key Vocabulary:

Light source	An object that produces its own light (e.g. sun, fire). These can be artificial (e.g torch), natural (e.g. the sun) or chemical (e.g. fireflies)
Reflection	When a light hits a surface and 'bounces' off
Refraction	When light passes through a different object and its direction changes
Opaque	An object which does not allow light to pass through it (e.g. wood).
Translucent	An object which allows some light to pass through it. It may be possible to see some unclear images through the object (e.g. tissue paper).
Transparent	An object which allows light to pass through it so that objects behind it can be easily seen (e.g. glass).
Spectrum	A range of colours caused when white light is refracted. A rainbow shows a spectrum of colours
Rainbow	An arch of colour caused by the refraction of light on water droplets in the air, usually rain (Red, Orange, Yellow, Green, Blue, Indigo, Violet).
Prism	A solid 3D shape where two end faces are similar and parallel
Shadow	A dark area or shape caused by the blockage of light.

### Key Knowledge:

I know that we need light to see things and that dark is the absence of light

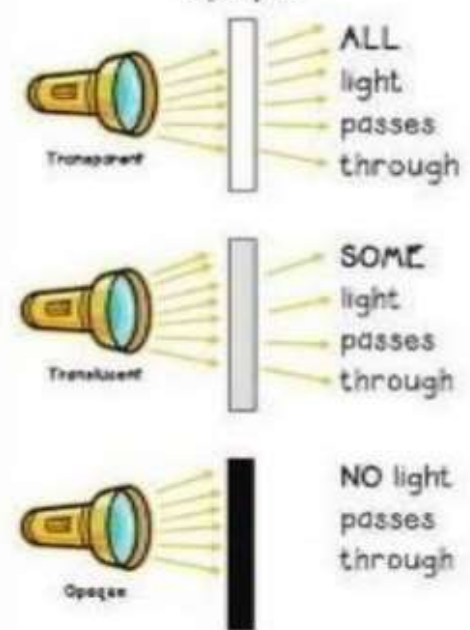
I know that reflection is when light hits a surface and 'bounces off'.

I know different ways to protect your eyes from the sun.

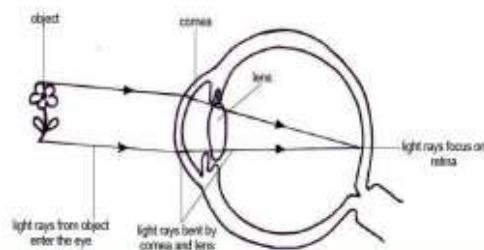
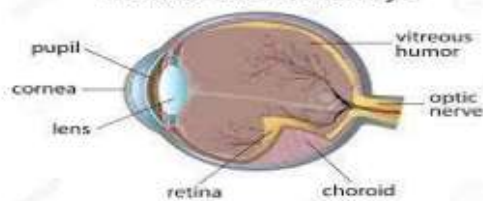
I know the difference between transparent, opaque and translucent.

I understand how shadows are formed.

### Translucent, Transparent & Opaque



### Parts of the Human Eye



As the **light source** moves **higher** in relation to the **object**, the **shadow** gets **shorter**. As the **light source** moves **lower**, the **shadow** gets **longer**.

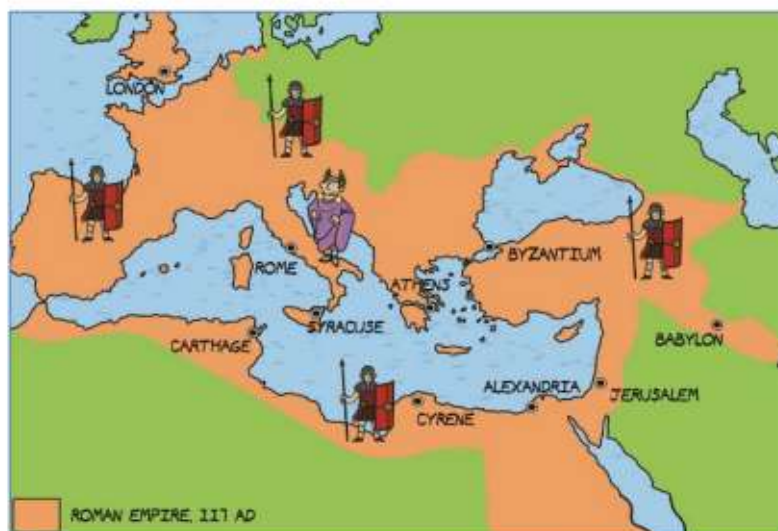


When white light passes through a glass prism, it is refracted. The light changes direction and is then dispersed (spread out) as it exits the prism. Depending on the shape of the prism and the angle of the light, we can often see the spectrum of colours.



## Year 2 Knowledge Organiser - History – The Romans – Year 2

Key Vocabulary	Definition
Empire	A group of states or countries ruled over by a single person
Legion	A large group of soldiers who form one section of an army.
Cavalry	Soldiers who fought on horseback.
Invasion	The entering or taking over of a place, by force
Rebellion	When a group of people are angry about something, usually something done by the people in power, and rise up and fight them
Emperor	A man who rules an empire
Defeat	To win against someone in a fight, war, or competition
Aqueduct	Bridge-like system built to move water from one location to another
Centurion	Soldier in the Roman army responsible for the command of one hundred men.



**Cassis:** A metal helmet, with a peak designed to protect the forehead from being smashed, and a guard at the back to protect the neck.

**Lorica:** A suit of armour made out of metal strips tied together with leather straps. It was very protective, but still allowed freedom to move.

**Tunica:** Under the armour, a red, woollen tunic.

**Pilum:** A long, metal tipped javelin to throw at enemy shields. The metal would bend on impact making it difficult for the victim to remove.

**Gladius:** A short, sharp, double-edged sword for short range combat. Carried on the right.

**Baltea:** A belt, or apron, of leather strips to protect lower part of the body, weighed down with metal weights.

**Scutum:** A large shield made of thick wood covered in leather, and rimmed with iron. It was curved to deflect arrows and wrap around the legionary.

**Caligae:** Heavy leather sandals for marching, with nails driven into their soles to improve the grip.



### Key Knowledge

I understand that the Romans built an empire.

I know that the soldiers had several large armies with many soldiers.

I know that the Romans invaded Britain.

I know that Romans built towns across Britain.

I know that Romans tried to invade Scotland.





## Knowledge Organiser - Still Life and Form - Visual Arts - Year 2

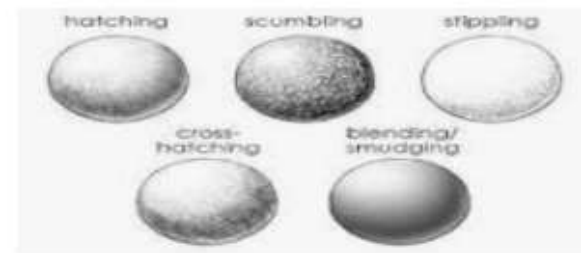
Key Vocabulary	Definition
Still life	A picture of something that does not move.
Form	Form means the 3d shapes in art. In a drawing or painting an artist can create the illusion that an object is 3d rather than flat.
Tone	How dark or light something is. Tones are created by the way light falls on a 3d object.
Shade/shadow	The parts of an object which are darker.
Highlight	The parts of an object where the light is strongest or lightest.
Mid-tone	Tones between the highlights and shadows.
Cast shadow	Where an object makes a shadow on something else e.g. a table underneath it.
Cross hatching	A technique of creating tone by drawing lines which cross over each other.
Blending	Smoothing a medium to create a smudged tone to show form.
Tints/Shades	A tint is the mixture of a colour with white, which increases lightness, and a shade is the mixture of a colour with black, which reduces lightness.



### Key Knowledge

I know that a still life is a picture of something that does not move. I know that they have been painted for a long time throughout history.
I know that artists use tone (lighter and darker shades) to create form.
I understand that artists can use different colours to create form.
I can use layers of colour to create form.
I can use drawing materials to represent real life
I can describe art I like and talk about artists work

Art	Artist/Title
	<i>Still life with peaches and water jar</i> Herculaneum, Italy, c. 62-69
	<i>Georgia O Keefe Charcoal leaves (1920)</i>
	<i>Red Poppy</i> Georgia O Keefe (1927)
	Giorgio Morandi, <i>Still Life with Five Objects</i> , (1956)
	Paul Cézanne, <i>Still Life, Pitcher and Fruit</i> (1894)





## Knowledge Organiser – PSHE – Relationships - Year Two

Key Vocabulary	
<b>Family</b>	A group consisting of one or two parents, their children and close relations.
<b>Relationship</b>	A loving and/or friendship between two people.
<b>Special</b>	More important than others.
<b>Touch</b>	To put your hand or another part of your body onto somebody/something.
<b>Hug</b>	To put your arms around somebody and hold them tightly, especially to show that you like or love them.
<b>Friend</b>	A person you know well and like, and who is not usually a member of your family.
<b>Secret</b>	Known about by only a few people; kept hidden from others.
<b>Worry</b>	To keep thinking about unpleasant things that might happen or about problems that you have.



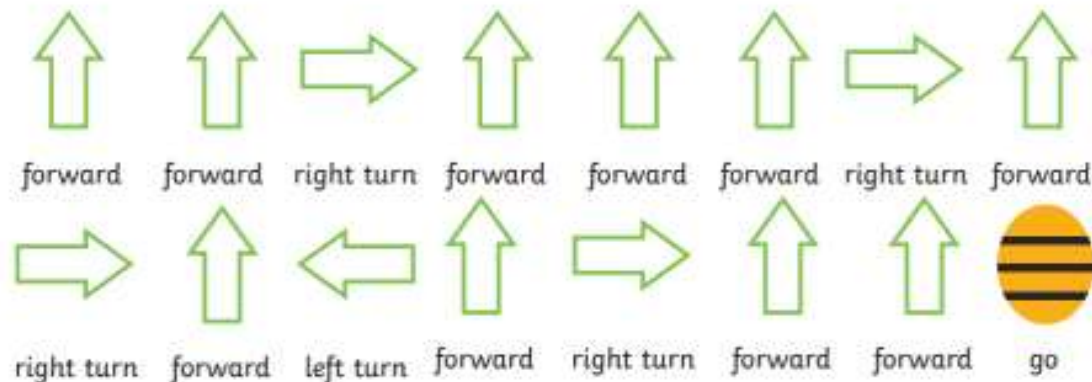
Key Knowledge
I understand that there are lots of forms of physical contact within a family and that some of this is acceptable and some is not.
I understand that sometimes it is good to keep a secret and sometimes it is not good to keep a secret.
I recognise and appreciate people who can help me in my family; my school and my community.



Reflective questions
Ask me this...
Who is special to you?
What kinds of touch do you like and why? E.g. a hug.
What sort of things causes friends to fall out sometimes and how can we resolve this?

## Knowledge Organiser- Programming – Robot Algorithms – Year 2

Key Vocabulary	Definition
algorithm	A sequence of instructions that are followed to complete a task.
artwork	Paintings, drawings or other artistic works.
debugging	Identifying and removing errors from computer hardware or software.
decomposition	Breaking down a problem into smaller parts/steps.
instruction	An order given to a computer.
mat	A surface that you can move a robot across.
prediction	An act of saying what will or might happen in the future.
program	Give a computer a set of instructions.
route	A road or course of travel from one place to another.
sequence	A set of related events that follow each other in a particular order.





Key Vocabulary	Definition
Pulse/Beat	A musical pulse
Rhythm	Music as it unfolds in time
Pitch	Highness or lowness of a sound
Harmony	Playing or singing more than one pitched note at the same time with other people
Texture	Thick or thin – how many layers of voice and/or instruments are in a piece of music.
Structure	Intro, chorus, verse, outro
dynamics	Forte / piano

#### DYNAMICS



**Crescendo**—the music gets gradually louder. The symbol is a crocodile mouth opening.

**Decrescendo** or **diminuendo**—the music gets gradually quieter.

**Forte**—play loudly. 'F' means forte (say for-tay)

**Piano**—play quietly. 'P' means piano (say pee-ah-no)

**Mezzo-forte** (mf) - medium loud

**Mezzo-piano** (mp) - medium soft

**Pianissimo** (pp) - very quiet

**Fortissimo** (ff) - very loud



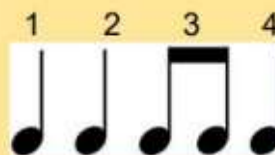
#### Songs covered

- Helping Each Other
- The Music Man
- Let's Sing Together

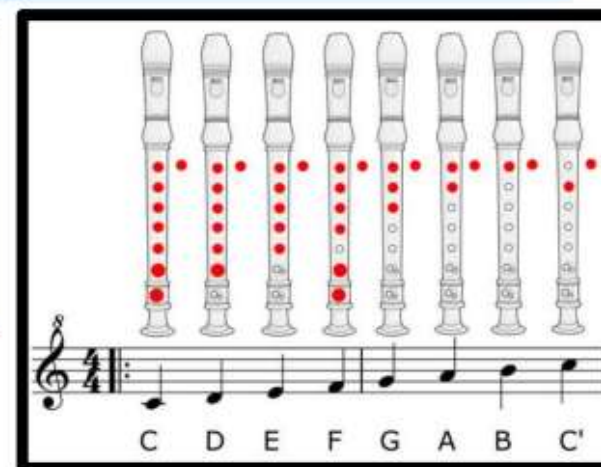
\*Rhythm is a pattern of the musical sounds and silences that occur over time like the steps in a dance, or the words in a poem or song

\*A beat is a unit division of musical time. It is regular and ordered like footsteps. Rhythm is a sequence of sounds that fit around the beat in patterns




**We learn how to read and write 4 beat rhythm patterns. We feel the rhythm by clapping, moving and speaking it. We put insect names to rhythm patterns but any words can help**



Crotchet Crotchet Quaver Quaver Crotchet  
1 beat + 1 beat + 1/2 beat + 1/2 beat + 1 beat  
Count the pulse: 1 2 3 4  
The rhythm sounds like Bee Bee Spider Bee



Key Vocabulary	Definition
<b>Enter/Exit</b>	To get into or out of the swimming pool.
<b>Pull</b>	The action done by the arms to move through the water.
<b>Glide</b>	When a swimmer coasts with a pause in their stroke or after pushing off from the side.

Skills	
<b>Floating on back</b>	
<b>Floating on front</b>	
<b>Gliding</b>	

Skill development
Begin to use arms and legs together to move effectively across the water.
Roll from my front to my back and then regain standing position.
Glide on both my front and back
Swim over a distance of 10m unaided.
Know several pool rules and explain how they help keep me safe.



## R.E. Year 2 Summer 1 Knowledge Organiser

### What do Humanists believe?

Key vocabulary	Definition
Golden Rule	Treat other people as you would like to be treated
Big Bang	How Humanists consider the world was created
Evolution	The changes over time to how humans (and living things) are today
Happy Human	Symbol associated with Humanism designed to portray the potential of humans and ability to celebrate life
Humanism	A non-religious worldview

Key Knowledge
I can say how I would like to be treated
I know what a Humanist might choose to live by and how they might treat other people
I know 3 things Humanists believe and how this might affect their actions
I can explain the Humanist symbol and what it means
I can talk about what I would do to look after the world and show people I care

#### Knowledge:

Humanism is not a religion. It is more a shared approach to seeing the world in a certain way. Humanists try to live by the "Golden Rule" which is "Treat other people as you would like them to treat you". It explains how a Humanists may try to live. This idea or way of living will also apply to how a Humanist might treat animals and the planet as well as other humans.



HUMANISM

"Treat other people as you'd want to be treated in their situation; don't do things you wouldn't want to have done to you."



British Humanist Association

# 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
diligenter	carefully
celeriter	quickly
et	and
tesserae	mosaics
ita vērō	yes
dīrēctae	straight
commodae	comfortable
nōbiscum	with us
viae	roads
villae	houses

## 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.

## 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, celeriter equito - I ride quickly.

Adverbs in Latin often (but not always) end in -er.

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



## Britons are best!

Rufus, Flavia and Candidus are kicking a ball. They sit down for a rest and begin to talk...

