

# **Knowledge Organisers**

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

**Science**

**History**

**Geography**

**Art**

**PSHE**

**Latin**

**Computing**

**R.E.**

**P.E.**

**Swimming**

**Music**

# **Year 3**

## 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

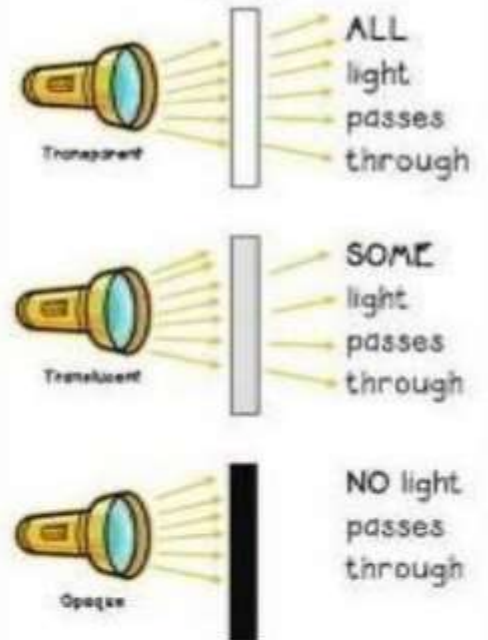
I know that reflection is when light hits a surface and 'bounces off'.

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

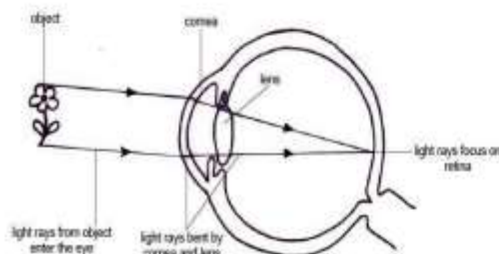
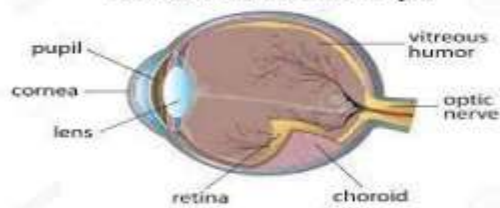
I know the difference between transparent, opaque and translucent.

I understand how shadows are formed.

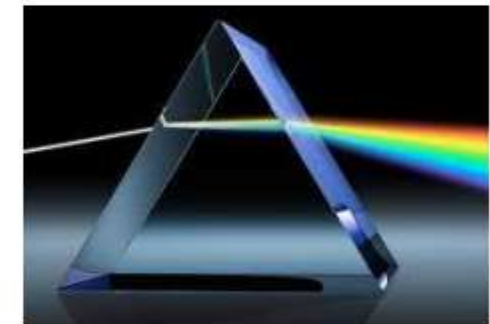
### Translucent, Transparent & Opaque



### 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.

## Knowledge Organiser - War of the Roses - History Year Three



*Lancaster Rose*



*York Rose*



*Tudor Rose*

### Key Vocabulary:

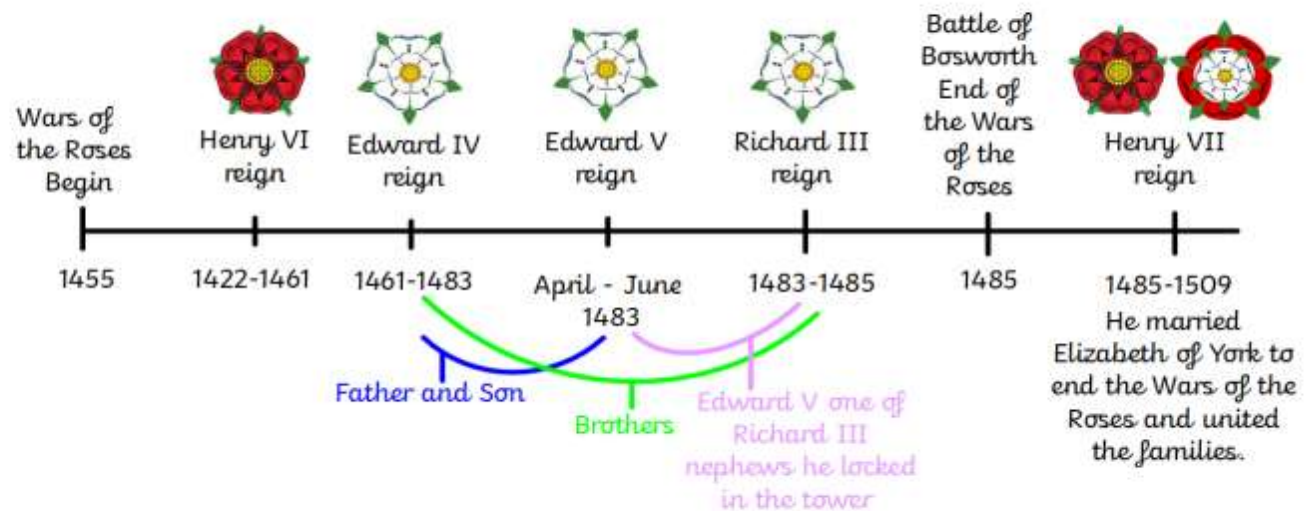
Civil War	War between different sides in the same country
House of York	Branch of the English royal House of Plantagenet. Three of its members became Kings of England
House of Lancaster	The other branch of the English royal House of Plantagenet.
Wars of the Roses	Civil wars for control of the throne of England. It was fought between two rival branches of the royal House of Plantagenet
Plantagenet	The name of the family which all the kings of England from 1154 to 1485 belonged to.

### Plantagenet Monarchs:

Henry VI	39 year reign 1422-1461
Edward IV	22 year reign 1461-1483
Edward V	Bit more than two month reign 6 <sup>th</sup> April – 26 <sup>th</sup> June 1483
Richard III	2 year reign 1483-1485
Henry VII	24 year reign 1485-1509

### Key Knowledge:

I understand that the Wars of the Roses were fought between two families.
I understand why people in Britain were so divided over who should be King of England
I understand why Richard III became king.
I know that Henry VII became king after the Battle of Bosworth
I know that Henry VII brought peace to England by marrying Elizabeth of York





## Knowledge Organiser- Japan (Geography Year 3)

Key Vocabulary	Definition
Earthquake	A sudden violent shaking of the ground caused by movements within the earth's crust or volcanic action.
Monsoon	Wind that carries heavy rains to southern Asia.
Typhoon	A tropical storm.
Island	A piece of land surrounded by water.
Tokyo	The capital and largest city of Japan.
Trade	Buying and selling things, for example food, machines, books
Feudal system	A system in which people were given land and protection by people of higher rank, and worked and fought for them in return.
Shogun	The supreme military commander.
Daimyos	Major landholders who each had control over a part of country. The Shogun had power over the daimyo.
Culture	A pattern of behavior shared by a society, or group of people. These things include food, language, clothing etc.

Key Knowledge
I know Japan is an island (a body of land entirely surrounded by water).
I know that Japan has four seasons but suffers from a range of natural disasters.
I know some of the differences between rural and urban Japan.
I know many global companies are based in Japan.
I know that Japan is rich in tradition and culture.

Flag of Japan



Mount Fuji



## Knowledge Organiser - Architecture - Visual Arts - Year Three

Key Vocabulary:	
<b>architecture</b>	The art of designing buildings
<b>architect</b>	A person who designs buildings
<b>design</b>	Planning and drawing how a building is going to look
<b>column</b>	A tall, straight part of a building that is sometimes decorated, often holds up another part of the building
<b>temple</b>	A place of worship, a building where people go to worship
<b>frieze</b>	A broad horizontal band of sculpted or painted decoration, especially on a wall near the ceiling
<b>replica</b>	A real-life copy
<b>vertical</b>	At right angles to a horizontal plane; in a direction, or having an alignment, such that the top is directly above the bottom
<b>horizontal</b>	Parallel to the plane of the horizon; at right angles to the vertical
<b>sculpture</b>	Art that is made through changing wood, metal or other materials
<b>sculptor</b>	A person who makes a sculpture
<b>line of symmetry</b>	An imaginary line that shows where equal forms are reflected

Key Knowledge:
I understand architecture as the art of designing buildings.
I know what symmetry is in buildings.
I know what domes and columns are on buildings.
I know buildings are designed for a purpose.

### Modern Architecture:

The Guggenheim Museum in Bilbao, Spain



The Guggenheim Museum in Bilbao, Spain

The Scottish Parliament, 1999



The debating chamber



## Knowledge Organiser – PSHE – Relationships - Year Three

Key Vocabulary	
<b>Responsibilities</b>	A duty to deal with or take care of somebody/something.
<b>Differences</b>	The way in which two people or things are not like each other or differences of opinions.
<b>Conflict</b>	A situation in which people, groups or countries disagree strongly or are involved in a serious argument.
<b>Solution</b>	A way of solving a problem or dealing with a difficult situation.
<b>Unsafe</b>	In danger of being harmed.
<b>Communications</b>	Methods of sending information, especially phones, radio, computers, etc. or roads and railways.
<b>Inequality</b>	The unfair difference between groups of people in society, when some have more wealth, status or opportunities than others.
<b>Deprivation</b>	The fact of not having something that you need, like enough food, money or a home.



Key Knowledge
I can identify the roles and responsibilities of each member of my family and can reflect on the expectations for males and females.
I know and can use some strategies for keeping myself safe.
I understand how my needs and rights are shared by children around the world and can identify how our lives may be different.



Reflective questions Ask me this...
Are there some jobs only suitable for women? Why?
In what ways could you solve a problem?
Who will keep you safe and help you if you need it?



# Latin Knowledge Organiser - Unit 5: Romans and Britons

## Key Vocabulary

Latin	English
ludunt	They play
sedent	They sit
equitāmus	They ride
colimus	They farm
pugnāmus	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.

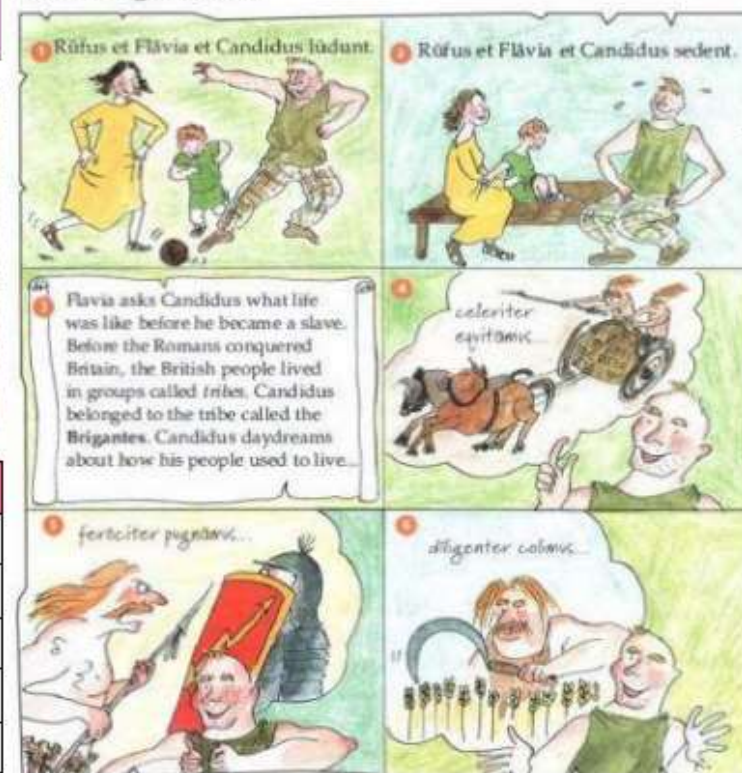
Adverbs in Latin often (but not always) end in -er.

**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...





## Knowledge Organiser- Sequencing Sounds – Computing – Year 3

Key Vocabulary	Definition
Programming	Creating a set of instructions that tell a computer how to perform a task
Code	Program instructions
Sprite	An image that can be created and programmed on scratch such as shapes, characters and animals.
Blocks	Puzzle-piece shapes that are used to create code in Scratch
Motion	Change of position of an object
Sequence	A set of step-by-step instructions created so a computer can do a task.
Chord	A group of notes sounded together
Backdrop	The background scenery
Algorithm	A set of instructions for a computer, split into little steps.
Bug	An error, fault or flaw in a computer program
Debug	To debug is to fix a sequence in a computer program.

### Key Knowledge:

- To explore a new programming environment
- To identify that commands have an outcome
- To explain that a program has a start
- To recognise that a sequence of commands can have an order
- To change the appearance of my project
- To create a project from a task description

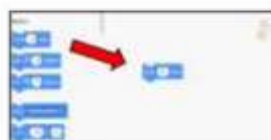
### What is Scratch?

Scratch is the world's largest coding community for children and a coding language with a simple visual interface that allows young people to create digital stories, games, and animations.

Scratch promotes computational thinking and problem solving skills; creative teaching and learning; self-expression and collaboration; and equity in computing.

### Programming Using Blocks

**-Basic Programming:** Make sure that the feature of the stage that you want to program (e.g. sprite, background) is selected by clicking on it. Drag the block command that you want onto the code area. Blocks can be deleted by right-clicking on the block and selecting 'delete block.'



**-Block Editing:** White areas on blocks can be edited. Click on them and type in the preferred value.



**-Running the Code:** You can run your animation by performing the action stated in the event block (e.g. clicking the event block). If this does not work, you may need to debug your animation (find errors and fix them).



### Sequencing and Algorithms

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

**-In Scratch,** blocks can stack vertically on top of one another to create sequences.

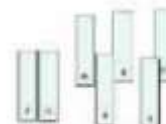
**-Event blocks** are used to start sequences. They are orange and have a curved shape at the top.



**-Designing an algorithm** (set of instructions for performing a task) will help you to program the sequence that you require.

### Making Music

**-Several sprites, each following connected sound sequences, can create music!**



**-In order to do this, you will need to carefully plan your algorithm.**



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





**R.E. Year 3 Summer 1 Sikhism Knowledge Organiser**  
**Enquiry: How far would a Sikh go for his/her religion?**

Key vocabulary	Definition
<b>Sewa</b>	A 'selfless service' that Sikhs perform in a variety of ways.
<b>Guru Nanak</b>	The founder of Sikhism (the person who started Sikhism).
<b>Guru</b>	Teacher
<b>The Langar</b>	The food served by volunteers at the Gurdwara.
<b>Harmandir Sahib</b>	Gurdwara which means <i>house of God</i> . It is located in the city of <b>Amritsar, Punjab, India</b>
<b>Gurdwara</b>	Sikh temple

Key Knowledge
I know how beliefs and causes are more important to me than others.
I know the 5 key beliefs of Sikhism are: God is in everything, Sikhs should serve others, everyone is equal, share what you have, give to charity.
I know that Sikhs are willing to sacrifice their time, effort, money, energy and even life for the well-being of others.
I know that Sikhs believe it is a good thing to treat people equally and share with people. Sikhs see the Langar as an opportunity to give, more than as a sacrifice.
I know that there are different levels of commitment and I can explain how committed I am to various interests.






**The Harmandir Sahib in India**






**The Langar – a community kitchen giving free meals to visitors**

Key Vocabulary	Definition
<b>Body Roll</b>	When a swimmer rotates their body from side to side.
<b>Glide</b>	When a swimmer coasts with a pause un their stroke.
<b>Backstroke</b>	One of the 4 strokes used in competitive swimming. The swimmer moves through the water on their back, with their tummy and face facing upwards.

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


Skills	
<b>Push, glide and float</b>	
<b>Front crawl legs</b>	
<b>Submersion</b>	



Key Vocabulary	Definition
Syncopation	Rhythm off the beat
Structure	Intro, bridge, verse, chorus, outro
Minim	
Crotchet	
Quaver	
Tempo	The speed at which music is played
Dynamics	Levels of sound in music (soft to loud)
Gospel	Christian music
Jazz	A blend of African and European music
Hip Hop	Also known as rap music originated from inner-city African Americans




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




F G A B $\flat$  C D E

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



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



How many beats per measure  
What note gets one beat

**Key Signature: D major** — there are two sharps in the key signature



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

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

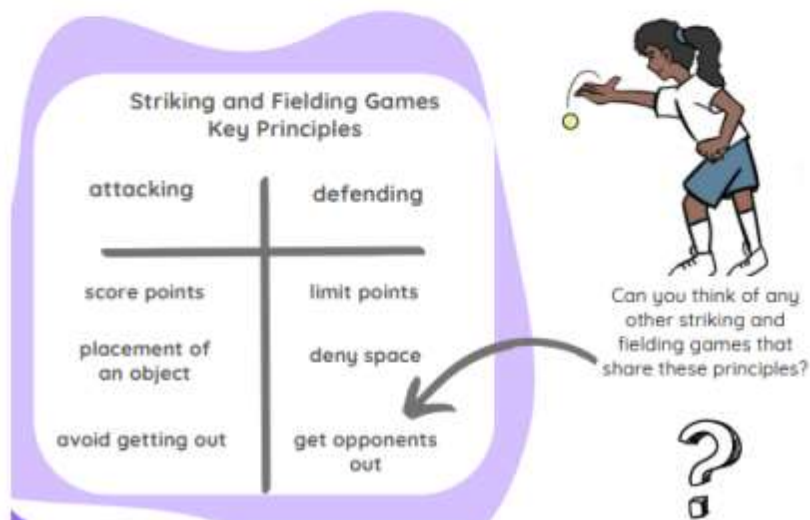
### Songs covered

- He's got the whole world in his hands
- Why does music make a difference?
- Panda extravaganza



## Knowledge Organiser – PE – Rounders – Year 3

Key Vocabulary	Definition
<b>Accuracy</b>	Aiming with consistency.
<b>No ball</b>	When a ball is bowled too high or too low.
<b>Batter</b>	A player on the batting team trying to hit the ball.
<b>Bowler</b>	The player on the fielding side who bowls the ball.
<b>Fielder</b>	A player on the fielding side who aims to collect/catch the ball.
<b>Stumped out</b>	If a fielder touches the ball on a post before the batter gets to it whilst running.
<b>Two-handed pickup</b>	A fielding technique used when the ball is rolling on the ground.
<b>Caught out</b>	When a fielder catches the ball without it touching the ground.



Rules

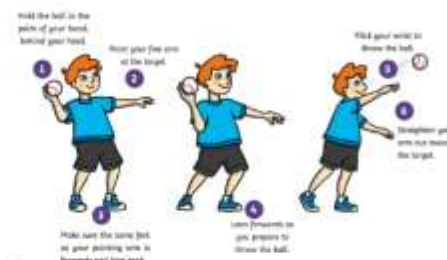
Tactics

### Skills

**Ready position**



**Throwing**



**Catching**



### OUTS

A player will be called out if they are:

- Caught out: fielders catches a batted ball
- Run out: their teammate runs to the same post as them
- Stumped out: fielder stumps the post that the batter is running to
- They run inside the bases

### HOW TO SCORE

- One rounder = ball is hit and live batter runs to 4th
- A half rounder = ball is hit and live batter gets to 2nd
- A half rounder = ball is not hit and live batter gets to 4th
- A half rounder = two consecutive no-balls

Tactics will help your team to achieve an outcome e.g. when fielding spread out to make so that you have a better chance of catching a batter out or stopping them from scoring.