

# Knowledge Organisers

## Spring 1

Art / DT

Computing

Geography

History

Latin

PE

PSHE

Music

RE

Science

## Birch

## Knowledge Organiser- Scientists and Inventors – Science -Year 4/5

Key Vocabulary	
<b>Naturalist</b>	a person who specializes in natural history.
<b>Recognition</b>	When someone receives public praise or credit for something they have done.
<b>Polar</b>	(adjective) relating to the North or South Pole.
<b>Climate change</b>	The long-term changes in global temperatures.
<b>Kevlar</b>	A strong artificial material used to make bulletproof vests, boat hulls, airplane parts etc.
<b>Patent</b>	A right of ownership, usually of an invention
<b>Astronomer</b>	A scientist who studies objects in the sky, including planets, galaxies, black holes and stars.
<b>Apollo</b>	The moon landing project conducted by the US.
<b>Pollinate</b>	To take pollen from one plant or part of a plant to another so that new plant seeds can be produced.

Knowledge Goals	
To know why the work of David Attenborough in raising awareness of the Arctic is so important.	
To know how materials are developed and how they are useful for different things.	
To know about the lifecycle of a star.	
To know why bees are important.	

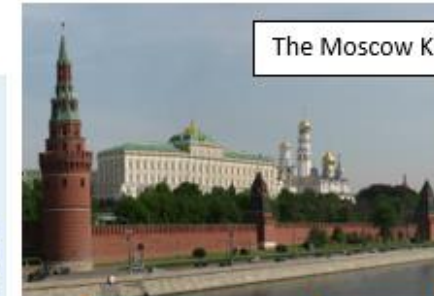
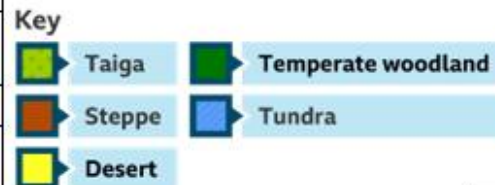


David Attenborough	Stephanie Kwolek	Mark Thompson	Eva Crane	Margaret Hamilton

## Knowledge Organiser- Russia – Geography -Year 4/5

Key Vocabulary	
continent	A large geographical region (Europe, Asia, Africa, North and South America, Australia, Antarctica).
Eurasia	Land area consisting of Europe and Asia
ecosystem	A community of living organisms (plants, animals) in a particular area.
altitude	A point in relation to sea level or ground level.
biome	A large region of Earth that has a certain climate and certain types of living things
populous	Having a large population.
economy	The process by which goods and services are produced, sold and bought in an area.
Kremlin	a group of buildings in Moscow that is now the centre of government of Russia

Knowledge Goals	
<i>I know Russia is the largest country in the world and spans across two continents.</i>	
<i>I know why the <u>Ural mountains</u> are so diverse.</i>	
<i>I know some of the biomes found in Russia.</i>	
<i>I know Moscow is the capital city of Russia.</i>	



The Moscow Kremlin



Saint Basil's Cathedral



## Knowledge Organiser- Maya Civilisation - History -Year 4/5

### Key Vocabulary

<b>Mesoamerica</b>	Meso = middle. Meso-America is the region of Southern Mexico and Central America
<b>sacrifice</b>	To kill an animal or person for a God
<b>polytheism</b>	Belief in many gods
<b>civilisation</b>	A group of people living together in social groups
<b>primary source</b>	A first-hand account of an event or an object from the time
<b>secondary source</b>	A source that was created, drawn or written at a later time
<b>hieroglyphs</b>	A writing system that uses pictures and symbols
<b>syllabogram</b>	A written symbol to represent a syllable

### Knowledge Goals

- I know who the Maya people were and where in the world they lived.
- I know about the Mayan people's religious beliefs.
- I understand how the Maya number system worked.
- I can explain which foods were significant to the Maya people.

#### Food

The Maya people mainly ate **maize** (corn). **Maize** was very important to them as they believed that the first humans were made from **maize** dough by the gods.

The Maya made a bitter chocolatey drink from **cacao beans** that was enjoyed by the rich. It was used for medicines and in ceremonies. The **cacao beans** were highly valued and even used as a form of money.



#### Writing

The Maya writing system was used to write several different Maya languages. It was made up of many symbols called glyphs.

Logograms are glyphs representing whole words.

Syllabograms are glyphs representing units of sound (syllables).

The glyphs were carved on stone buildings and monuments and painted on pottery.

Maya **scribes** also wrote books called **codices**.

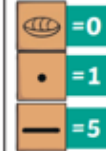


#### Maya Numbers

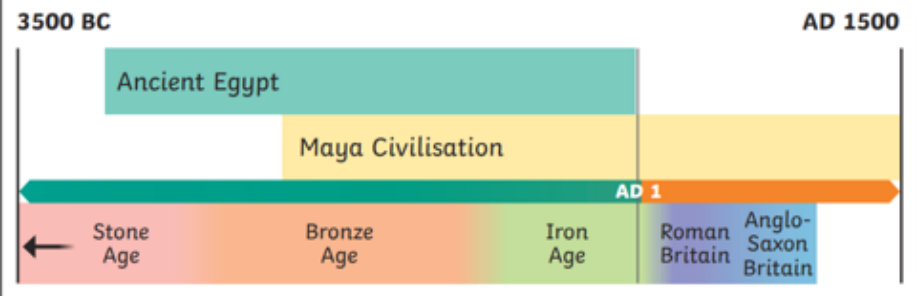
The Maya developed an advanced number system for their time.

They were one of only two cultures in the world to develop the concept of zero as a placeholder.

The number system used three symbols in different combinations.



The Maya built cities, pyramids and ornate sculptures in the rainforest.



#### Religion

The Maya believed in many gods and goddesses. They thought that the gods/goddesses had a good side and a bad side and that they could help or hurt them. The Maya people would dance, sing and make offerings to the gods/goddesses.

Maya priests were believed to be able to communicate directly with the gods/goddesses. As a result, they were very important in society.



## R.E. Year 4/5 Spring 1 Knowledge Organiser

### Enquiry: Judaism – What is the best way for a Jew to show commitment to God?

Key vocabulary	Definition
<b>Responsibility</b>	Having a duty to deal with something or do something
<b>Dedication</b>	Being committed to a task or purpose
<b>Shabat</b>	The Jewish Day of Rest
<b>Torah</b>	The first five books of the Hebrew Bible
<b>Kashrut</b>	Dietary rules for food
<b>Seder</b>	A Jewish ritual and ceremonial dinner at the beginning of Passover.
<b>Shavuot</b>	A Jewish festival which celebrates the day when the Ten Commandments were given on Mount Sinai.
<b>Bar/Bat Mitzvah</b>	A coming of age ceremony for Jewish boys and girls when they reach 12 or 13.

Key Knowledge
I can show an understanding of how people show commitment in their lives.
I can investigate how Jews show their commitment to God.
I know what happens at a Bar or Bat Mitzvah ceremony.
I can investigate what the Torah says about commitment.
I know Jewish people fast during fasting days.

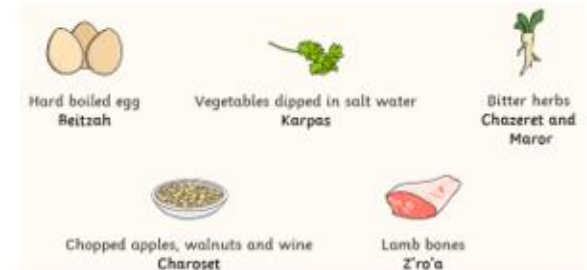


Bar Mitzvah for a young boy

Bat Mitzvah for a young girl



Parts of Seder Plate



## Knowledge Organiser- River of Hope – Art -Year 4/5

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### Key Vocabulary

<b>River of Hope</b>	River of Hope is an arts-based learning project linking schools around the world through the study of rivers and environmental issues.
<b>River</b>	A natural flowing stream of water.
<b>Hope</b>	A feeling of expectation – something positive going to happen.
<b>Natural Environment</b>	The air, water, land in (or on) which people, animals or plants live.
<b>Translucent</b>	An object, or substance, allowing some light to travel through.
<b>Print</b>	A print is an impression made by any method involving transfer from one surface to another
<b>Mixed media</b>	Artworks that are made using a range of materials
<b>Collage</b>	A technique in which pieces of paper, photographs, fabric and other mixed media are arranged and stuck down onto a supporting surface resulting in a piece of art work.
<b>Installation Art</b>	Describe large-scale, mixed-media constructions, often designed for a specific place or for a temporary period of time – also known as 'environments'

### Knowledge Goals

- To be able to comment thoughts and ideas about the River of Hope.
- To know how pieces of artwork are connected, including paintings, stories, poems and music.
- To explore shape, colour and lines used by artists, for use in a collaborative artwork.
- To choose appropriate ideas and media when installing an artistic piece.



'The Great Wave ' by Hokusai, 1831



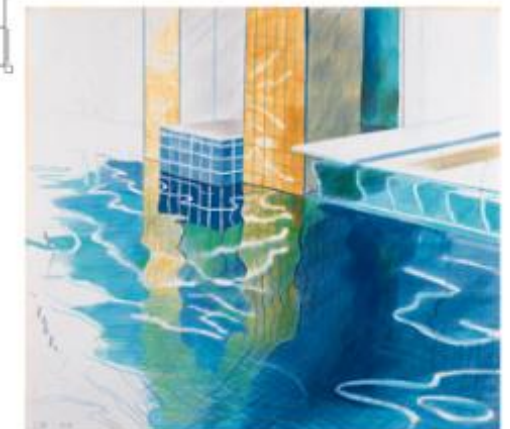
'Terrenaquea Series ' by Zaria Forman, 2012



'Impression Sunrise' by Claude Monet, 1872



'Lincoln Sea, Greenland' by Zaria Forman, 2019



'Study of Water, Phoenix' by David Hockney, 1976

# Latin Knowledge Organiser - Unit 3: Work, Work, Work

Key Vocabulary	
Latin	English
facis	You are doing
scrībō	I am writing
scrībit	He/she/it is writing
spectat	He/she/it is watching
pūrgō	I am cleaning
pūrgat	He/she/it is cleaning
legō	I am reading
legit	He/she/it is reading
verrō	I am sweeping
subitō	suddenly
ancilla	slave girl
intrat	He/she/it enters
nova/novus	new
labōrant	They are working
rīdent	They are smiling
quod	because
minimē!	No!
legis	You read
coquis	You cook
valida/validus	strong
semper	always

## Grammar

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

In Latin you don't need to use a separate word for "I" or "he" or "they". The ending of the verb tells us who is doing the action.



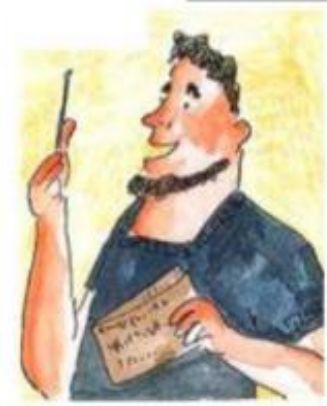
I want you to remember that if a verb ends in -t, then *he* or *she* is doing that action.



**Pandora's Box**



Favius and his family would have lived in a Commanding Officer's house like this one.



## Key Knowledge

- To identify verbs in English and Latin.
- To identify Latin verbs and begin to understand their endings.
- To explore regular verb endings.
- To write simple sentences with verbs and 'quod' (because).
- To explore creation myths (Pandora's Box).

**Unit Motto**  
**veni, vidi, vici = I came, I saw, I conquered**



## Knowledge Organiser- Data Logging – Computing

Key Vocabulary	Definition
<b>Data</b>	A collection of numbers that can be analysed.
<b>Input Device</b>	The information put into a computer or device
<b>Sensor</b>	A device which detects, measures and/or records information
<b>Data point</b>	A point where data is recorded
<b>interval</b>	A space or gap between two things.
<b>Import</b>	Transfer data into a file or document
<b>Export</b>	Transfer data in a format that can be used by other programs.
<b>analyse</b>	Discover or reveal something




Key Knowledge:
To be able to explain that data gathered over time can be used to answer questions
To be able to use a digital device to collect data automatically
To be able to explain that a data logger collects 'data points' from sensors over time.
To be able to recognise how a computer can help us analyse data
To identify the data needed to answer questions
To use collected data to answer questions

Data Recording

-One way for us to record data is by writing it down. Some data loggers can also record data themselves, which we can download later. Computers can also help us to record data, e.g. by connecting our data loggers to computers and opening data logging software.

-An advantage of this is that computers can record data automatically, meaning that someone does not need to sit waiting for a long period of time. Data loggers can be set to measure at different intervals (points in time).

-Data logger software can also be used to show different charts and graphs. This can save the user a lot of time!

Data Collection

**Asking Questions:** Data gathered over time can be used to answer important questions. For example, the class register can be used to answer questions about children's attendance. Before collecting data, we need to carefully consider which questions we are trying to answer.



**-Sensors:** Our senses (sight, hearing, smell, taste, touch) detect things in our environment. Computers have input device sensors which help them to sense things.

Some examples are:

- Microphones (sound)
- Camera (light)
- Touchscreen (touch)

**- Data Loggers:** Data loggers have sensors built into them. They can be used to detect and record data. Data loggers often contain:

- A heat sensor (to record the temperature)
- A light sensor (to record brightness)
- A sound sensor (to record the noise).

Analysing Data

Answering Questions

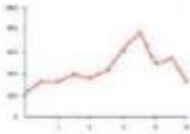
-When scientists collect data, they usually store it so that it can be analysed at any time. The data can also be shared so that other scientists can use it.

-Tables and graphs can be used to present the data in a useful way for reading and understanding it. It is important to be able to see trends as clearly as possible.

-Remember that data should be collected for a reason: to answer questions.

-It is very important to ensure that the testing that you do is fair and reliable, otherwise the data that you get back may not give you the accurate answers that you need.

-It is important to interpret your data carefully. You can then write a report detailing what your conclusions are.



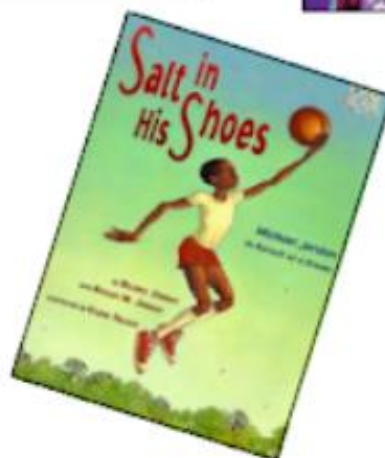


## Knowledge Organiser – PSHE – Dreams and Goals





Vocabulary	
<b>Determination</b>	The effort required to do something and keep doing it until the end, even if it is hard.
<b>Perseverance</b>	The continued effort to do or achieve something despite difficulties, failure, or opposition.
<b>Cooperation</b>	To act or work together with another or others for a common purpose.
<b>Fears</b>	To be afraid of someone or something.
<b>Hopes</b>	To want something to happen.
<b>Dream</b>	Something that you hope for very much, although it is not likely to happen.
<b>Goals</b>	An aim or purpose.
<b>Resilience</b>	To be able to recover quickly from difficulties; toughness.
<b>Commitment</b>	To be dedicated to a cause or activity.



Key Knowledge
I understand that sometimes hopes and dreams do not come true and that this can hurt.
I know how to make a new plan and set new goals even if I have been disappointed.
I know how to work out the steps to take to achieve a goal, and can do this successfully as part of a group.




Reflective questions
Ask me this...
What dreams or hopes do you have for the future?
How will you know when you have achieved your goal?
What can help when you feel hurt or disappointed?

Key Vocabulary	Definition
Key signature	The key of a piece of music depends on the flats and sharps in the music.
Minim	
Crotchet	
Dotted crotchet	
Quaver	
Melody	A succession of musical tones
Dynamics	Levels of sound in music (soft to loud)
Disco	A genre of dance music
Folk	Music that originates from traditional cultures
Orchestral	Music created by an ensemble of instruments
Home note	Where the music feels like it finishes
Tonic	The key note of the music

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



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

How many beats per measure

What note gets one beat

**Time Signature: 3/4** — there are three crotchet beats in a bar

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

Songs covered


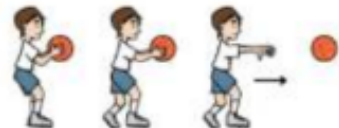
- Bringing us together
- Old Joe Clark
- Dance with me



Key Vocabulary	Definition
<b>Dribble</b>	Moving with the ball by bouncing it with one hand.
<b>Double Dribble</b>	THIS IS NOT ALLOWED! – Dribbling the ball with 2 hands at once. Possession is given back to the opposing team.
<b>Travelling</b>	THIS IS NOT ALLOWED! – Moving with the ball without dribbling it. Possession is given back to the opposing team.
<b>Chest pass</b>	When someone passes the ball from chest height with no bounce.
<b>Bounce pass</b>	When someone passes a ball with a bounce.

### Skill Development

- To develop the attacking skills of dribbling.
- To protect the ball when dribbling against an opponent.
- To develop passing skills.
- To use defending skills to delay an opponent.
- To develop a shooting technique.
- To apply rules and tactics in game situations.

Skills	
<b>Dribbling</b>	
<b>Passing</b>	
<b>Shooting</b>	