

Knowledge Organisers

1st Spring Term

Science

Geography

History

Art/DT

Latin

PSHE

Computing

RE

Music

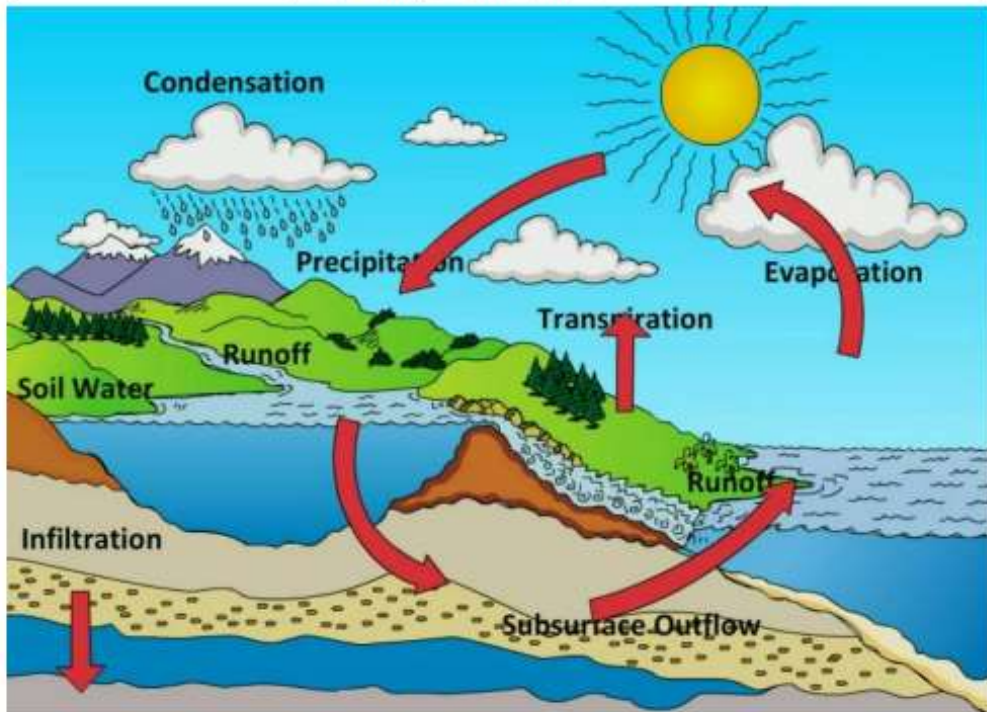
PE

Class 3 - Year 4

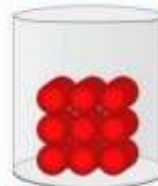
Knowledge Organiser – Science – Year 4 – States of Matter

Vocabulary	
State	states of matter are solids, liquids and gases
Particle	a small portion of matter
Melt	when something becomes a liquid through heating
Cool	bring to a lower temperature
Thermometer	instrument for measuring temperature
Evaporation	process of turning liquid into vapour
Condensation	vapour or gas turns into a liquid
Reversible	When materials can be changed back to how they were before the reaction took place.
Irreversible	This is when materials cannot be changed back to how they were before.

Key Knowledge
I know the properties and behavior of particles in solids and liquids.
I understand that gas is all around us.
I know how heating a substance can change its state.
I understand which changes are reversible and irreversible.
I know that melting means turning a solid into a liquid and cooling it will reverse this.
I understand that puddles disappear when they evaporate and the water vapour condenses into clouds.
I know that water vapour turns into clouds.
I know that water cools and condenses into rain and falls (precipitation).



solid



- rigid
- fixed shape
- fixed volume

cannot be squashed



liquid



- not rigid
- no fixed shape
- fixed volume

cannot be squashed



gas



- not rigid
- no fixed shape
- no fixed volume

can be squashed

Knowledge Organiser- Eastern Europe –Geography- Year 4

Key Vocabulary	Definition
Balkans	South of the Danube are the Balkan countries, along the Balkan Peninsula. These include Croatia, Albania, Bosnia-Herzegovina, Bulgaria, Macedonia, Montenegro, Romania, Serbia, Slovenia and Kosovo.
Baltic Countries	These are located on the Baltic Sea: Latvia, Lithuania, Estonia
Cyrillic	An Alphabet they use in Russia, named after St. Cyril who translated the Bible into the Russian language
human geography	The geographical study of people and their communities, cultures, economies, and interactions with the environment.
physical geography	The geographical study of processes and patterns in the natural environment like the atmosphere, hydrosphere, biosphere, and geosphere.
steppe	Grassland plains without trees apart from those near rivers and lakes.

Key Knowledge
I know that Eastern Europe covers a large area, with many countries, people, cities and rivers. I know it has a long border with the continent of Asia
I know that the biggest country in Eastern Europe is Russia
I know that there are four seas that surround Eastern Europe. They are: The Caspian Sea, The Black Sea, The Baltic Sea and The Adriatic Sea
I know that the highest mountain range in Europe is in Russia- the Caucasus Mountain and that the highest mountain in this range is Mount Elbrus in Russia
I know that there are some very long rivers in Eastern Europe, including the Volga and the Daube
I know that there is conflict in Eastern European between Russia and the Ukraine.

Russia	
Capital	Moscow
Population	144,463,451
Currency	Russian rouble (₽) (RUB)
Flag	
Major Cities	
Moscow	Russia
St Petersburg	Russia
Dubrovnik	Croatia
Warsaw	Poland

Example of Cyrillic alphabet:

А Б В Г Д Е
Ж З И Й К
Л М Н О П
Р С Т У Ф
Х Ц Ч Ш Щ
Ы Э Ю Я

Eastern Europe is surrounded by four seas:

- Caspian Sea
- Black Sea
- Adriatic Sea
- Baltic Sea

Rivers and Mountains in Eastern Europe:

- Volga River
- Ural River
- Danube River
- Caucasus Mountains
- Mount Elbrus
- Carpathian Mountains

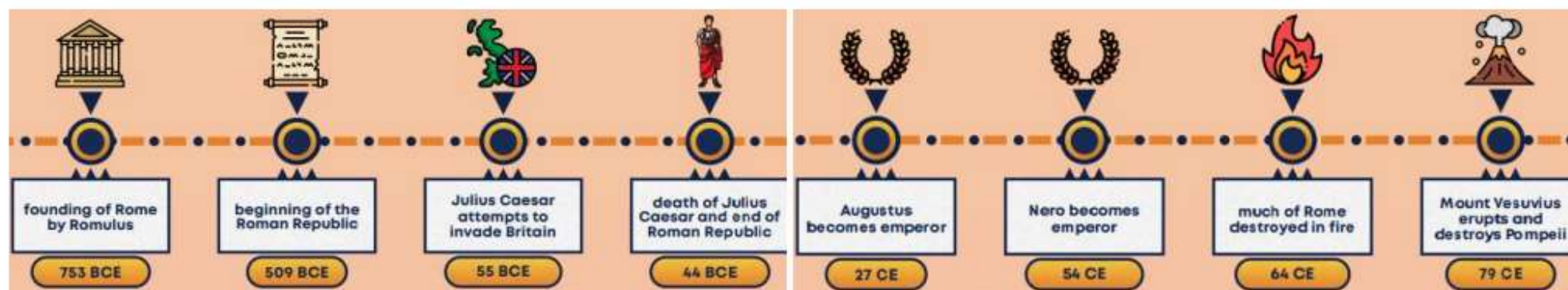
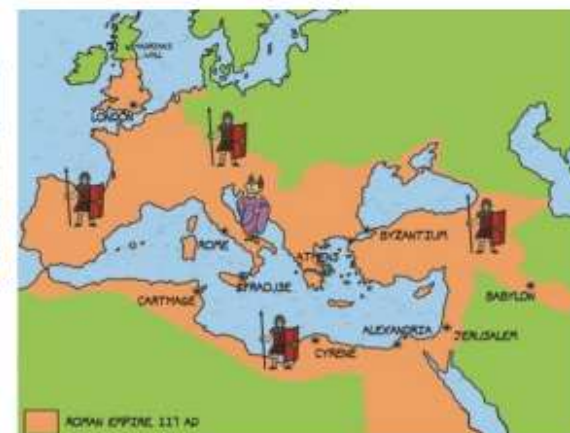


Knowledge Organiser – Life in Ancient Rome – History – Year 4

Key Vocabulary	Definition
Roman Empire	A huge empire controlled by Rome, lasting between 509 BCE and 476 CE.
Republic	A government where the people are in charge, rather than a king.
Mediterranean	The countries that surround the Mediterranean sea. These were once dominated by Rome.
Latin	The language of Rome, spoken across the Roman Empire.
Pompeii	A small town in Southern Italy that was totally destroyed by a volcano in 79 CE.
Aqueduct	A stone trough to carry water across the country into Roman towns.

Key Knowledge

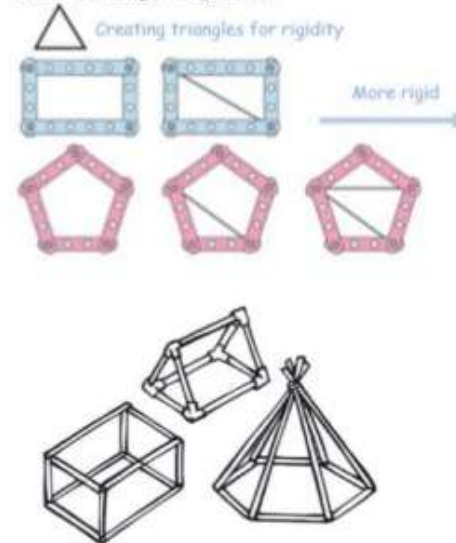
- I know where Ancient Rome originated from
- I understand that Rome started as an absolute monarchy and became a republic
- I know that Pompeii, a wealthy town on the Italian coast, was destroyed by a volcano. Archeologists used the remains to find out about life in Ancient Rome.
- I know about some of the leisure activities that took place in Ancient Rome including baths, the forum, chariot races and gladiator fights
- I know that the Romans spoke in Latin and that this language has influenced many other languages that we speak today



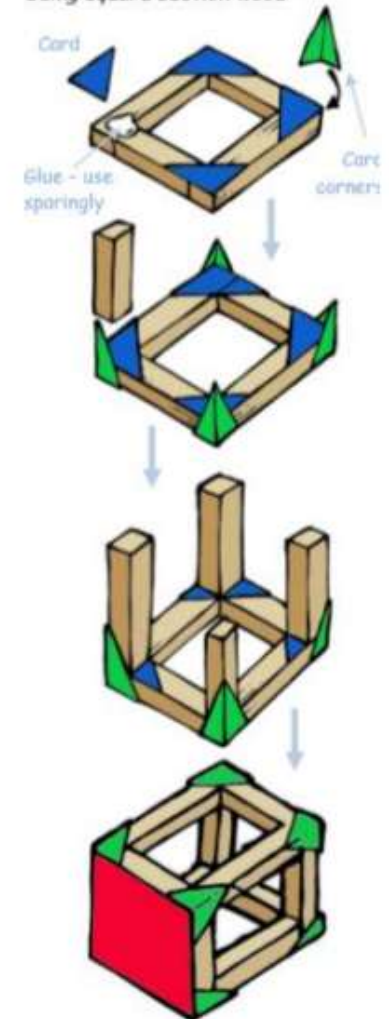
Knowledge Organiser - Structures – Design and Technology – Year 6

Key Vocabulary:	
Reinforce	To make stronger
Triangulation	To reinforce using triangles to add strength
Stability	A structure that will not twist or overturn easily
Join	To combine two pieces of a structure together
Design brief	A document that outlines a project developed by a team or individual
Specification	A detailed description of the design and materials used to make something
Purpose	What a product is used for
Annotated sketch	A diagram that had labels to describe a design
Prototype	A first version of a product that is a test version

Understanding triangulation



Using square section wood



Key Knowledge:

I know triangulation gives strength to the structure

I know that prototypes are used on design

I know how to create a step by step annotated design sketch

I know how to use a junior hack saw and bench hook safely

I know why product evaluation is important

The Eiffel Tower, Paris (1889)



The Gherkin, London (2003)



The Sidney Harbour Bridge, Sidney, (1932)



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
intra	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

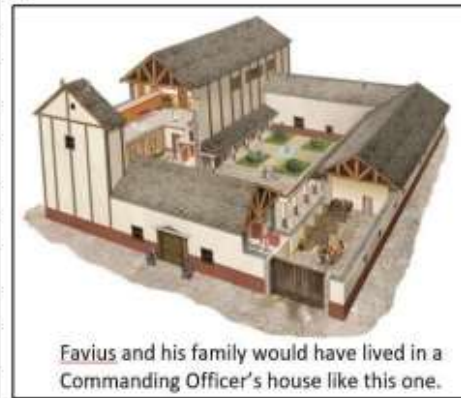
Words we use to talk about actions are called verbs, e.g. Corinthus **is writing**.

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



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

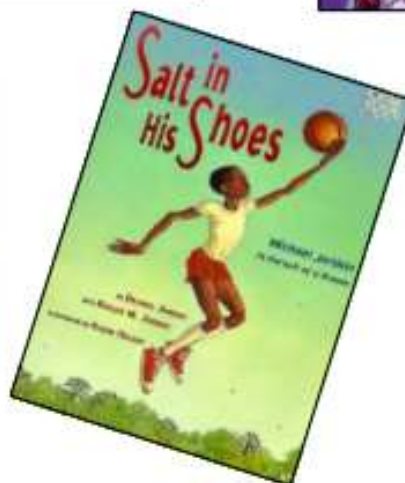


Knowledge Organiser – PSHE – Dreams and Goals - Year Four



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

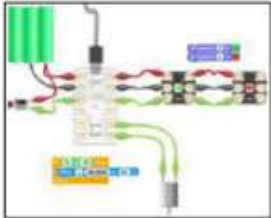
Knowledge Organiser –Programming – Selection in Physical Computing – Computing – Year 5

Key Vocabulary	Definition
Programming	Inputting a set of instructions into a device (usually a computer).
Circuit	A path created between two or more points which carries an electrical current.
Electricity	The flow of electrons through an object. It is the effects of an electric charge.
Microcontroller	A small device that can be programmed to control other devices that are connected to it.
Code	A set of instructions or rules that are written in a particular language understood by a computer system.
LED	An output device that can emit light when electricity is passed through it.
Algorithm	A set of instructions for performing a task, specifically used in coding.
Motor	An output device that can start, stop, go at different speeds and spin forwards and backwards
Modify	Changing or improving a programme
Debugging	The process of removing errors from computer hardware or software systems.

Key Knowledge:
A microcontroller is a programmable device that can control outputs and respond to inputs
To know that an infinite loop means that an action will be repeated forever
To understand algorithms can be presented in different ways.
To know that count-controlled loops are used to control a condition and that conditions can only be true or false.
To understand that 'do until' loops are used to repeatedly carry out actions,
To be able to read code and describe what the output from given code will be.

Overview

Selection in Physical Computing



- Programming is when we make and input a set of instructions for computers to follow.
- Microcontrollers are devices that can be programmed to control output devices that are connected to them.
- We use algorithms which we can plan, model, trial and debug, in order to create accurate command sequences, involving multiple output devices (e.g. LEDs and motors).


Microcontrollers, LEDs and Motors

-Microcontrollers: A microcontroller is a small device that can be programmed to control devices that are connected to it.

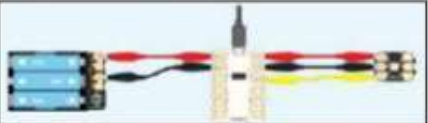
-One brand of widely used microcontroller is called a Crumble controller, which can be used to control many things, e.g. LEDs and motors.

LEDs:

-LEDs are output devices that emit light. When electricity is passed through an LED it produces light. One type of LED light, controlled by a Crumble controller, is called a Sparkle.



Creating Circuits:






-The USB port connects the microcontroller to a computer. Crocodile clips pass electricity and data through to the LED/motor.

-The + and - power pads on the Crumble should be connected with the + and - power pads on the Sparkle and battery box. The D pads on the Crumble and Sparkle should also be connected.

Motors:

-Motors are another output device. A motor can start, stop, spin forwards, spin backwards, and go at different speeds.



Sequencing and Algorithms	Trialling and Debugging
<p>-A sequence is a pattern or process in which one thing follows another.</p> <p>-We design algorithms (sets of instructions for performing a task) to help us program sequences involving multiple output devices (e.g. LEDs and motors).</p> <p>-Programming is the process of keying in the code recognized by the computer into the software (using your algorithm).</p>	<p>-Programmers do not put their computer programs straight to work. They trial them first to find any errors:</p> <div style="text-align: center;">   </div> <p>-<u>Sequence errors:</u> An instruction in the sequence is wrong or in the wrong place.</p> <p>-<u>Keying errors:</u> Typing in the wrong code.</p> <p>-<u>Logical errors:</u> Mistakes in plan/thinking.</p> <p>-If your algorithm does not work correctly the first time, remember to debug it.</p>

R.E. Year 4 Spring 1 Knowledge Organiser

Enquiry: Could the Buddha's teachings make the world a better place?

Key vocabulary	Definition
Buddhism	Buddhism is the world's fourth-largest religion with over 520 million followers, or over 7% of the global population, known as Buddhists.
Buddha	Awakened or enlightened one.
Bodhi	Tree under which Buddha reached enlightenment: known as the tree of wisdom.
8 Fold Path	The 8 fold path is Right Understanding, Right Intent, Right Speech, Right Action, Right Livelihood, Right Effort, Right Mindfulness and Right Concentration.
Enlightenment	To find the truth about life
Siddhatta	Was a monk, philosopher, teacher and religious leader on whose teachings Buddhism was founded.


Key Knowledge
I know what makes our world wonderful.
I can talk about changes that have happened in my life and can explain how it makes me feel.
I know that the Buddha says people must accept change and that if you treat others with kindness, they will be happy.
I know that the Buddha told people to live a good life without being selfish or greedy and that it would make the world a better place.
I can explain what I would do to try and make the world a better place.



The Buddha taught us to accept that everything changes.


If we are kind and loving to others, this will make others happy.



Key Vocabulary	Definition
Time signature	The rhythm following a clef <i>6/8 — there are six quaver beats in a bar</i>
Key signature	The key of a piece of music depends on the flats and sharps in the music. <i>C major — there are no sharps or flats in the key signature</i>
Tempo	The speed at which music is played <i>Presto — At a very quick speed (180 bpm)</i>
Rhythmic patterns using:	Dotted crotchets: Triplet Quavers: Quavers: 
Musical styles	Pop, rock, 20 th and 21 st century orchestral

Songs Covered	
Freedom is Coming	South African Pop
All Over Again	20 th and 21 st Century Orchestral
Do You Ever Wonder?	20 th and 21 st Century Orchestral

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




C D E F G A B

Key Signature: D minor — there is one flat in the key signature



D E F G A B \flat C

Key Signature: E major — There are four sharps in the key signature

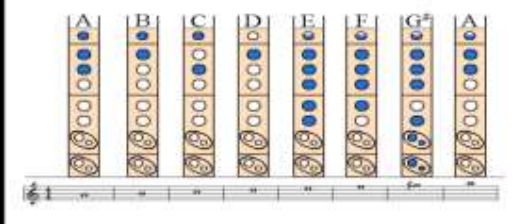


E F \sharp G \sharp A B C \sharp D \sharp

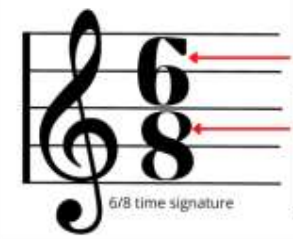


Improvise Together

Recorder A Minor Scale and Finger Chart.



6/8 Time Signature



6/8 time signature


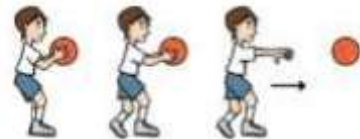
Top Number 6 beats every bar
Bottom Number Quarter (crochet) beat

Notes you composed with...

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

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

Skill Development
<ul style="list-style-type: none"> 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	
Dribbling	
Passing	
Shooting	