The background of the slide is a 2x3 grid of pop art portraits of Marilyn Monroe. Each portrait is a different color: top-left is yellow and pink, top-middle is light blue, top-right is yellow and green, bottom-left is orange and teal, bottom-middle is orange and pink, and bottom-right is pink and green. The text is overlaid on the top row of portraits.

**Year 5 and 6**  
**Spring Term**  
**Cycle B**

*Milvertate*

# Year 5 Maths – Yearly Overview

**Year 5/6 Fluency Time: Thursday and Fridays 11.45-12.15.**  
**FOCUS: Thurs: KIRFS; Fri: Arithmetic**

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
<b>Autumn</b>	Number: Place Value			Number: Addition and Subtraction (A)		Number: Multiplication and Division (A)			Number: Fractions (A)			Autumn Term Assessments/ Consolidation
On-going: Flashbacks (to recap on previous learning)								Yr. 5 KIRFS A1 = decimal number bonds to 1 and 10. KIRFS A2 = Multiplication/division facts up to 12 x 12				
<b>Spring</b>	Number: Multiplication and Division (B)			Number: Fractions (B)		Number: Decimals and Percentages			Measurement: Perimeter and Area	Number : Statistics	Spring Term Assessments/ Consolidation	
On-going: Flashbacks (to recap on previous learning)								Year 5: KIRFS Sp1: Conversion of metric units KIRFS Sp 2: Primes to 50				
<b>Summer</b>	Geometry: Shape			Geometry: Position and Direction		Number: Decimals			Number: Negative numbers	Measurement: Converting units	Measurement: Volume	Summer Term Assessments/ Consolidation
On-going: Flashbacks (to recap on previous learning)								Year 5: KIRFS Su1/Su2: Recall, review, consolidate				

# Year 6 Maths – Yearly Overview

**Year 5/6 Fluency Time: Thursday and Fridays 11.45-12.15. FOCUS:**  
**Thurs: KIRFS; Fri: SATs Arithmetic**

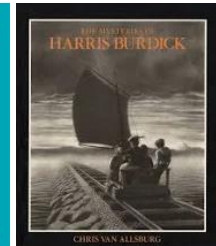
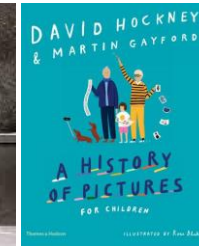
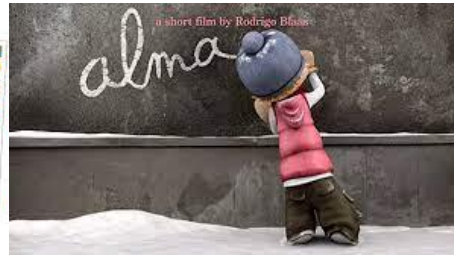
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	
<b>Autumn</b>	Number: Place Value		Number: Addition, Subtraction, Multiplication and Division				Fractions				Geom	etry: Position and Direction	Consolidation Autumn term assessments
On-going: Flashbacks (to recap on previous learning) and times table practice							<b>Yr. 6</b> KIRFS A1 = Multiplication/division facts up to 12 x 12 KIRFS A2 = Common factors						
<b>Spring</b>	Number: Decimals		Number: Percentages		Number: Algebra		Measurement : Converting Units	Measurement: Perimeter, Area and Volume		Number: Ratio		Consolidation/ Spring term assessments	
On-going: Flashbacks (to recap on previous learning) and times table practice							<b>Year 6.</b> KIRFS Sp1: Metric conversions KIRFS Sp 2: Primes to 20						
<b>Summer</b>	Geometry: Properties of Shapes (Before SATS)		Problem solving (in all lessons leading up to SATS)			Statistics (in SATS Boosters)		Investigations (After SATS)				Consolidation	
On-going: Flashbacks (to recap on previous learning) and times table practice							<b>Year 6.</b> KIRFS Su1: Squares/roots to 144 KIRFS Su2: Factor pairs						

# Year 5/6 Mixed Age Maths Yearly Overview

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Number: Place Value		Number: Four Operations				Number: Fractions					Consolidation/ Autumn term assessments
	On-going starters: Mon: Flashback 4; Tues: SATs Corner/KIRFS/I See Reasoning/I See Problem Solving; Wed: Times Tables; Thurs: SATs Based Retrieval: Fri: Problem Solving						Yr. 6 KIRFS A1 = Multiplication/division facts up to 12 x 12 KIRFS A2 = Common factors			Yr. 5 KIRFS A1 = decimal number bonds to 1 and 10. KIRFS A2 = Multiplication/division facts up to 12 x 12		
Spring	Year 5: Number: Fractions	Number: Decimals and Percentages			Year 5: Number: Decimals		Measures: Converting Units Perimeter, Area and Volume		Statistics		Consolidation/ Autumn term assessments	
	Year 6: Number: Ratio				Year 6: Number: Algebra							
On-going starters: Mon: Flashback 4; Tues: SATs Corner/KIRFS/I See Reasoning/I See Problem Solving; Wed: Times Tables; Thurs: SATs Based Retrieval: Fri: Problem Solving						Year 6. KIRFS Sp1: Metric conversions KIRFS Sp 2: Primes to 20			Year 5: KIRFS Sp1: Convert FDP KIRFS Sp 2: Primes to 50			
Summer	Geometry: Properties of Shape		Geometry : Position and Direction	Year 5: Four Operations Consolidation		Year 5: FDP Consolidation		Year 5: Measures Consolidation		Investigations		Consolidation/ Summer term assessments
				Year 6: Revision & SATs		Year 6: Investigations						
On-going starters: Mon: Flashback 4; Tues: SATs Corner/KIRFS/I See Reasoning/I See Problem Solving; Wed: Times Tables; Thurs: SATs Based Retrieval: Fri: Problem Solving						Year 6. KIRFS Su1: Squares/roots to 144 KIRFS Su2: Factor pairs			Year 5: KIRFS Su1/Su2: Recall, review, consolidate			
<b>Year 5/6 Fluency Time: Thursday and Fridays 11.45-12.15. FOCUS: Thurs: KIRFS; Fri: SATs Arithmetic</b>												



**Motivational  
Core Texts:**  
(Lots of visual texts  
this term)



Main Genres:	Genre Success Criteria:	
<p>Formal Letters: To invite and complain (The Teachers' Art Gallery)</p>	<ul style="list-style-type: none"> <li>•Address of sender - top right &amp; Address of recipient - top left</li> <li>•Date under RECIPIENT address on the left</li> <li>•Greeting on left, under date - Dear _____ or Sir/ Madam (if recipient name not known)</li> <li>•Sign-off, aligned left, under last paragraph: Yours sincerely if name known; Yours faithfully if not.</li> <li>•The first paragraph makes the purpose of the letter clear.</li> <li>•The middle paragraphs add detail and are linked.</li> <li>•Make next step for recipient clear - what do you want/need them to do?</li> <li>•Standard English – formal tone</li> </ul>	
<p>Journalism: To Recount (Banksy Rat)</p>	<ul style="list-style-type: none"> <li>•Short, effective headline (play on words/alliteration etc.)</li> <li>•Orientation (5 Ws) - hooks the reader</li> <li>•Quotes (Direct and indirect)</li> <li>•Past tense (except quotes)</li> <li>•3rd person</li> <li>•Paragraphs</li> <li>•Impersonal</li> <li>*Passive voice</li> <li>•Time connectives/ range of other appropriate connectives</li> <li>•Inverted triangle: as the articles progresses, the details become less important</li> <li>•Summary linking back to the opening</li> </ul>	
<p>Poetry Anthology: To Entertain</p>	<ul style="list-style-type: none"> <li>•Sensory</li> <li>•POSAAM</li> <li>•Repetitive text (refrains)</li> <li>•pattern in words / shape / rhythm</li> <li>•Rhyme schemes (ABAB, AABB etc.) and assonance</li> <li>*Oxymoron and enjambment</li> </ul>	<p>Various types in response to different art pieces including the sculptures of Andy Goldsworthy</p> <p>Types may include: haiku, cinquain, tanka, sonnet, ode, kenning and free verse.</p> <p>See genre SC document for key features.</p>
<p>Narrative: To Entertain (Mystery stories based on Alma)</p>	<ul style="list-style-type: none"> <li>•Introduction, Build Up, Problem/Climax, Resolution, Reflection: characters/ author reflect on what has happened to them.</li> <li>•Create vivid images by using POSAAM</li> <li>•Interweave a balance of detailed action/description/dialogue to move the story forwards.</li> <li>•A wide range of sentence structure, starters and punctuation.</li> <li>•Clear paragraphs</li> <li>•Write cohesively at length.</li> <li>•Talk to the Reader</li> </ul>	
<p>Balanced Arguments: To Discuss (Is Graffiti Art?)</p>	<ul style="list-style-type: none"> <li>•Question for the title</li> <li>•Introduction explains what the argument is about</li> <li>•Statements for and against, with reasons to support them</li> <li>•Final paragraph sums up and may offer suggestions/a reasoned conclusion</li> <li>•Paragraphs beginning with varied openers</li> <li>•Mainly present tense including examples of the passive form</li> <li>•Modal verbs e.g. 'would', 'could', 'might'</li> <li>•Connectives which: introduce more points: 'furthermore'/give a balanced view: 'however'/draw to a conclusion: 'consequently'</li> <li>•Generalisers e.g. many, some</li> <li>•Quotes and statistics</li> </ul>	

Art Styles: Portraits

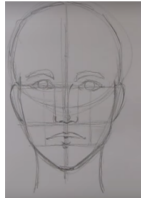


# Portraits

Look at your self in the mirror.

Standard Facial Proportions:

- The eyes are halfway between the top of the head and the chin.
- The bottom of the nose is halfway between the eyes and the chin.
- The mouth is halfway between the nose and the chin.
- The corners of the mouth line up with the centres of the eyes.
- The top of the ears line up above the eyes, on the eyebrows.
- The bottom of the ears line up with the bottom of the nose.



<https://www.youtube.com/watch?v=E2-CGT1Qoc>

Art Styles: Cubist Portraits

A **portrait** is a painting, photograph, sculpture, or other artistic representation of a person, in which the face and its expression is predominant. The intent is to display the likeness, personality, and even the mood of the person. A self portrait is an observational piece of art based on yourself. A portrait is an observational piece of art based on someone else



We will be looking at the work of the artist Picasso (1881-1973), in particular his cubist period.

Cubism is a style of art which shows objects, landscape and people from different viewpoints simultaneously (at the same time, within the same work).

Pablo Picasso *Weeping Woman* 1937

Art Styles: Landscapes

A painting or drawing of a large area of the natural world, for example mountains or fields.



Vincent Van Gogh - Wheatfield with Cypresses



The Bathers George Seurat



Art Styles: Pointillism



A Sunday Afternoon on the Island of La Grande Jatte painted over two years 1884-1886.

Georges SEURAT

Key Vocabulary	Definition
Pointillism	style of painting that was developed in France in the late 19th century in which very small dots of colour are used to build up the picture.
Impressionism	a style in painting developed in France in the late 19th century that uses colour to show the effects of light on things and to suggest atmosphere rather than showing exact details

Art Styles: Sculpture

Sculptures are 3D structures and can be made from anything! They often have a meaning behind them.



Nathan Sawaya is an American artist who builds custom three-dimensional sculptures and large-scale mosaics from popular everyday items and is best known for his work with standard LEGO building bricks



Art Styles: Graffiti

Banksy is a pseudonymous English graffiti artist, political activist, film director, and painter. His street art combines dark humour with graffiti executed in a distinctive stencilling technique. His works of political and social commentary have been featured on streets, walls, and bridges of cities throughout the world.

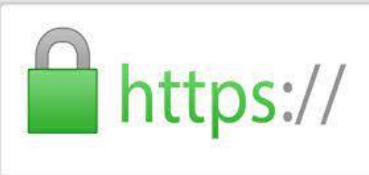




## Y56 Computing – Cycle B, (Y6 Online Safety)

### Key Vocabulary

<b>Cyberbullying</b>	When bullying occurs online, rather than in person, often through social media
<b>Stereotype</b>	A widely believed but often over-simplified or limiting view of people
<b>Secure Website</b>	A website with a 'lock' near the URL, to show that the website is secure / safe to use
<b>Privacy</b>	Keeping your personal information private
<b>Reporting</b>	Telling someone else, or people that can help, when you see something that isn't kind, or safe
<b>Discerning</b>	Thinking carefully and using your knowledge to help decide whether websites are safe or reliable.



The symbol for a secure website, found next to the URL.

### Key Concept: Online Safety

#### Behaviour

Sometimes, people can behave differently online, compared to how they behave in person.

This can be upsetting – what can you do if you notice this?

#### Risk

Sometimes when you are online, you may need to share some of your data – for example, if you are filling out a form to join a club.

Be 'discerning' about the data you share – what is the risk involved?

#### Seeking Help and Reporting

If you experience, or notice online bullying taking place, you may need to seek help – find someone who can help make things better. Also, you may need to 'report' what you see, so that protections can be created to stop it happening again.

#### Personal Information

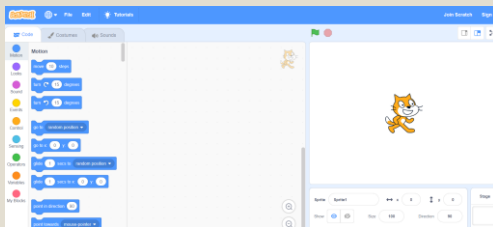
Your personal information should be kept private wherever possible – and you should always check with an adult before you share anything personal online.

**Speak Out: You can contact Childline on 0800 1111 if you need help with online bullying**

## Y56 Computing – Cycle B, (Scratch – Game Design)

### Key Vocabulary

<b>Algorithm</b>	A set of instructions for a computer to follow, designed by humans
<b>Debugging</b>	Finding mistakes in an algorithm, and correcting them
<b>Variable</b>	Using 'if' or 'when' commands in your algorithm, so that it can adapt to different situations
<b>Repetition</b>	Using 'loops' or 'repeats' to save time re-writing the same commands in your algorithm
<b>Scratch</b>	Free, web-based games programming tool
<b>Trigger</b>	Something separate from the algorithm, often 'plugged in' to the computer, that can tell an algorithm what to do – such as a mouse, or a sensor



**Scratch**

### Key Concept: Coding and Programming

#### Creating Algorithms

An algorithm sounds complicated, but really it's just a series of instructions for a computer to follow. A good algorithm will tell a computer exactly what to do, and exactly when to do it. Every time you use a computer, it is following hundreds or thousands of instructions – all designed by humans!

#### Debugging

Testing is an important part of programming. We need to know if our program does what we want it to do! If it isn't working, then we need to debug our program. Can you figure out which part of your algorithm isn't correct, and fix it?

#### Testing and Predicting

Predicting what an algorithm will do is an important skill – if you test your algorithm, and your prediction was correct, this can give you confidence.

#### External Triggers

An external trigger is something separate from the algorithm, that tells an algorithm what to do, or to change. For example, the click of a mouse, or the use of a light sensor, could 'trigger' the algorithm to change its course.

**Enjoy programming and debugging using web-based software Scratch – visit [scratch.mit.edu](http://scratch.mit.edu)**



# Years 5&6 Geography, Spring – Contrasting Localities

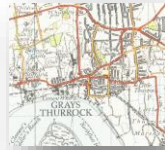


## Contrasting Localities

### Using Maps

Maps are useful for many purposes, including:

- Finding your location
- Working out where to go
- Calculating distances
- Looking at land use



Maps can be used in paper form, or digitally.

### Human Geography



Human geography looks at the impact that humans have on our planet.

- What do we build, and why?
- Where do we choose to live, and why?
- How might our towns and cities be different in the future?

### Physical Geography



Physical geography is all about the natural processes that happen on planet earth – weather, land formations, rivers seas and oceans, biospheres and the climate.

## Key vocabulary:

<b>County</b>	For example, Warwickshire
<b>City</b>	For example, Coventry
<b>Region</b>	An area that has certain characteristics
<b>Country</b>	A part of the world with its own boundaries, laws and government
<b>Locate</b>	To find something accurately
<b>Grid reference</b>	A numbered location on a map, e.g. (24, 56)
<b>Human</b>	The impact humans have on earth
<b>Physical</b>	Natural processes, e.g. weather
<b>Land use</b>	What different areas of land are used for
<b>Climate</b>	The weather conditions over a long period
<b>Agriculture</b>	Farming for crops and products e.g. wool
<b>Population</b>	The number of people living in a defined area

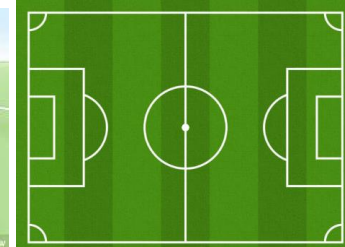
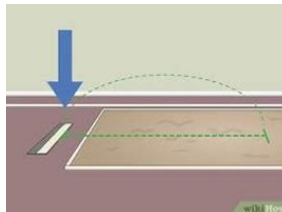
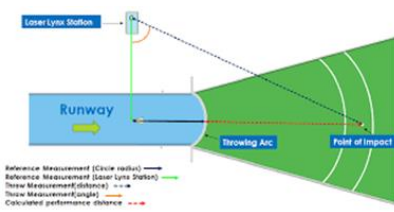
# Milverton Primary School – Year 5 & 6 – Spring Cycle B Knowledge Organiser - Physical Education



## Indoor Athletics Invasion - Football

Key Vocabulary	
Indoor Athletics	Football
Start and Finish	Goal Kick, Kick off, Throw in
Sprint and Endurance	Foul, Free Kick, Penalty
Javelin and Shot Put	Football, Goal line, Penalty Area
Long Jump and High Jump	Dribbling, Pass, Control and Shoot
Measurement for running – time	Header
Measurement for throwing and jumping	Offside

Key Knowledge – Coaching Points					
Indoor Athletics	Throwing		Running		Jumping
	<ul style="list-style-type: none"> <li>Stand sideways on with your throwing arm drawn back</li> <li>Do some little hops forwards to get some momentum</li> <li>Twist at the hips to get the most power</li> <li>Follow through with your throwing arm across your body</li> <li>Make the angle of your throw go high and far – not too high or too flat to get the best distance</li> </ul>		<ul style="list-style-type: none"> <li>Sprint events ask runners to go as fast as they can</li> <li>Longer distance events ask runners to pace themselves</li> <li>When starting, listen carefully, react quickly and push off</li> <li>Try to use short fast strides to start quickly</li> <li>Try to drive knees upwards and take long strides</li> <li>Use arms in opposition to legs</li> </ul>		<ul style="list-style-type: none"> <li>When taking off drive the opposite knee and hips upwards to get more lift</li> <li>Try to time your run up to take off at the correct point</li> <li>Use your arms to help propel your body</li> <li>Long jump is measured from the point closest to the jump line so move forwards after landing</li> </ul>
Football	Send & Receive	Attack and Defend	Moving	Scoring	Tactics and Rules
	<ul style="list-style-type: none"> <li>Pass to the receiver either to their feet or in front of them if they are moving</li> <li>Pass with the inside of the foot</li> <li>Draw back the leg, connect with the ball in the middle of the ball, follow through in the direction of the pass</li> <li>Control with the inside of the foot and push the ball just in front of your feet</li> </ul>	<ul style="list-style-type: none"> <li>Move up the pitch to get closer to the goal to score</li> <li>Pass or run with the ball to move up the pitch</li> <li>Move into free space towards the opponents goal</li> <li>Pass in front of players so they can run onto the pass</li> <li>Try to intercept passes between attacking players</li> <li>Stand in front of an attacker with the ball and make it hard for them to pass or shoot</li> </ul>	<ul style="list-style-type: none"> <li>Run when without the ball</li> <li>Run with the ball by doing small taps with the inside and outside of the foot to keep it moving</li> <li>Change direction by moving the ball in another direction</li> <li>When turning or changing direction make tight turns and quick movements away</li> <li>Use outside or inside hook to turn</li> </ul>	<ul style="list-style-type: none"> <li>Kick or head the ball into the opponents goal to score</li> <li>A goal is 1 point</li> <li>The goalkeeper may try to save the shot</li> <li>The goal keeper can use their hands to save the ball and pick it up</li> <li>Shoot by kicking the ball with the top of the foot, aim low to the corners away from the goal keeper</li> </ul>	<ul style="list-style-type: none"> <li>The game starts with a pass from the centre circle</li> <li>Pass and then move to a better position to get the ball back</li> <li>Don't foul by making illegal contact with your body</li> <li>The ball stays inside the lines</li> <li>A player is in an offside position if any part of the body is in the opponents' half and any part of body is nearer to the opponents' goal line than both the ball and the second-last opponent.</li> </ul>



# Milverton Primary School Knowledge Map [Years 5 & 6 – Dance – Spring Term]

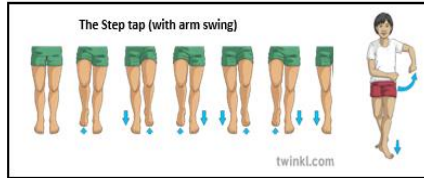


## Vocabulary

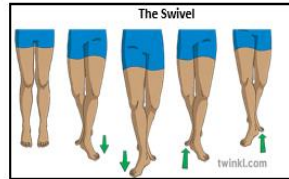
Showcase	To perform a medley/range of different dance styles
Charleston	A type of jazz dance born in America in 1923
Jive	Otherwise known as 'lindyhop', jive is an energetic dance born in 1930s. Heavily influenced by rock n roll.
Rock step	A dance move performed in the jive
Swivel	A dance move performed in the Charleston
Birdie	A dance move performed in Irish Dancing
Scissor Kick	A dance move performed in Irish Dancing
Posture	The position in which someone holds their body whilst standing or sitting
Popping and locking	A dance move performed in breakdance
Top rock	A dance move performed in breakdance
Bhangra	A type of Indian folk dance
Unison	Complete a dance sequence as the same time as somebody else.
Canon	Complete a dance sequence one after other
Beat (8 Counts)	Counting the beat of the music and finding the 8 <sup>th</sup> count
Routine	Combining a mixture of dance moves together

## Charleston

### Charleston Key dance moves



### The Knee Swap



## Jive

### Jive Key dance moves



### Toe flicks (alternating in partners)



### Lindy Hop Rock Steps



## Irish Dance

### Irish Dance Key moves



### Hop Back

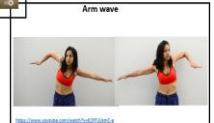


### Birdie



## Breakdance

### Break Dance Key moves



## Bhangra

### Bhangra/Bollywood dance



## History

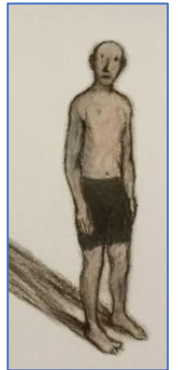
- Charleston** was a dance born in America in 1923 and based around jazz. It was a lot more expressive than other traditional dances at the time.
- Jive** was a dance born in 1934 and was heavily influenced by rock and roll. It can otherwise be known as the 'Lindyhop'. It is a very happy, boppy, energetic dance and requires lots of bouncing on the balls of your feet.
- Irish dancing** is a dance born in Ireland and has influences from English country dancing- from 18<sup>th</sup> and 19<sup>th</sup> centuries. It is a type of folk dance. It is famous for intricate foot movements and straight upper body. It is often traditionally performed in groups.
- Break dance** was a dance originating in New York City during the late 1960s and early 70s. It incorporates a mixture of moves from martial arts and gymnastics. It has a unique culture and early styles of it were influenced by funk (James Brown).
- Bollywood and bhangra.** Bhangra was a dance that formed together in its current style in 1940s. It was a type of Punjab (Indian) folk dance celebrated during the time of the harvest. Bollywood films originated in middle east and utilised elements of the bhangra dance within their films.

# Milverton Primary School Knowledge Map - PSHE (Topical issues and Super Learning Skills)



## Living in the Wider World: Debating Topical Issues – The Island

- research, discuss and debate topical issues, problems and events concerning health and well-being and offer their recommendations to appropriate people.
- resolve differences by looking at alternatives, seeing and respecting others' points of view, making decisions and explaining choices.
- think about the lives of people living in other places and people with different values and customs,



<p><b>Democracy</b></p> <p>Democracy is when a group of people have equal rights and the freedom to choose how they are treated, rather than when one person has all the power and makes all the decisions. It can also refer to the way in which we vote for the person or group we want to represent us.</p>
<p><b>Individual Liberty</b></p> <p>Individual liberty is when people have the freedom to choose their faith, beliefs, likes and dislikes which are outside Government control.</p>
<p><b>Rule of Law</b></p> <p>Rule of Law means that all people and groups are ruled by the same laws which help to keep us all safe and happy.</p>
<p><b>Mutual respect for and tolerance of those with different faiths and beliefs and for those without faith</b></p> <p>A fair, objective and permissive attitude to those whose faith and beliefs may differ from one's own.</p>

## Spring Super Learning Skills (SLS)

- name and explain and use the 6 Super Learning Skills.
- recognise my worth as an individual by identifying positive things about myself and my achievements, seeing my mistakes, making amends and setting personal goals.
- resolve differences by looking at alternatives, making decisions and explaining choices.

### Key vocabulary:

**MOTIVATION**

**Monty the Moth**

**Learn...**

- \*Am an independent learner
- \*Try my best every time
- \*Use the success criteria to help me
- \*Evaluate my learning and try to make it better
- \*Am proud of what I do!

**CREATIVE THINKING**

**Cara the Chipmunk**

**Learn...**

- \*Take risks in my learning
- \*Look at things from different viewpoints (thinking hats)
- \*Extend my learning using CREATE
- \*Present my learning in unique ways
- \*Lead my own learning – using my own ideas

**COLLABORATION**

**Colin the Caterpillar**

**Learn...**

- \*Talk using my partner, group and audience voices
- \*Show good listening skills
- \*Take on a role during group activities
- \*Take turns and help others

**SELF-AWARENESS**

**Sally the Skunk**

**Learn...**

- \*Talk about how I am feeling using the right language
- \*Use different strategies to help with difficult feelings
- \*Recognise how other people are feeling
- \*Use my strengths to help others
- \*Talk about things I find harder and find ways to improve

**ENQUIRY**

**Ernie the Eagle**

**Learn...**

- \*Ask open questions using the question fruits
- \*Use my thinking brain
- \*Use books and the internet to find the answers to questions
- \*Test out my ideas in different ways

**PROBLEM SOLVING**

**Pandora the Porcupine**

**Learn...**

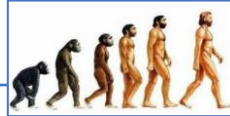
- \*Use what I have learnt before to help me
- \*Think about things in a different way
- \*Consider a range of solutions
- \*Plan steps
- \*Use trial and error
- \*Explain and justify my findings
- \*Persisters

Key vocabulary:	
Topical issue	something that concerns or relates to events that are happening at that time
Well-being	being comfortable, healthy, or happy
Research	study and investigation for the purpose of discovering and explaining new knowledge.
Debate	a discussion between two people or groups who disagree on an important subject.
Resolve	a solution or end to an argument or other conflict
Values	a person's or society's beliefs about good behaviour and what things are important.
Customs	a common way of doing things that many people do/have done for a long time.

# Years 5&6 Science Spring Term



## Evolution and Inheritance



### Key Knowledge:

Offspring - Animals and plants produce offspring that are similar but not identical to them. Offspring often look like their parents because features are passed on.

Variation - In the same way that there is variation between parents and their offspring, you can see variation within any species, even plants.

Adaptive Traits - Characteristics that are influenced by the environment the living things live in. These adaptations can develop as a result of many things, such as food and climate.

Inherited Traits - Eye colour is an example of an inherited trait, also things like hair colour, the shape of your earlobes and whether or not you can smell certain flowers.







Habitats - A good habitat should provide shelter, water, enough space and food.

Environments - There are many types of environment around the world. Polar regions, deserts, rainforests, oceans, rivers, and grasslands are all environments.

Fossils - Preserved remains, or partial remains, of ancient animals and plants. Fossils let scientists know how plants and animals used to look millions of years ago giving proof that living things have evolved over time.

Evolution - The gradual process by which different kinds of living organism have developed from earlier forms over millions of years. Scientists have proof that living things are continuously evolving - even today!

Natural Selection - Fossils of giraffes from millions of years ago show that they used to have shorter necks. They have gradually evolved through natural

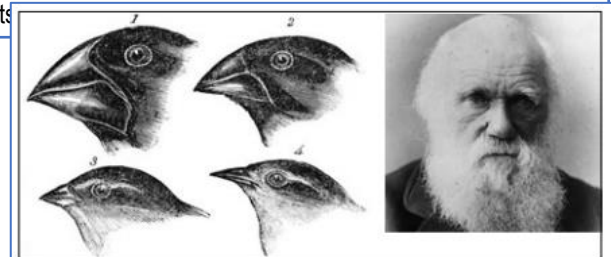
Living Things	Habitat	Adaptive Traits
polar bear 	arctic 	Its white fur enables it to camouflage in the snow.
camel 	desert 	It has wide feet to make it easier to walk in the sand.
cactus 	desert 	It stores water in its stem.



### Key vocabulary:

Offspring	The young animal or plant that is produced by the reproduction of that species.
Inheritance	This is when characteristics are passed on to offspring from their parents.
Variation	The differences between individuals within a species.
Characteristic	The distinguishing features or qualities that are specific to a species.
Adaptation	An adaptation is a trait (or characteristic) changing to increase a living thing's chances of surviving and reproducing.
Habitat	Refers to a specific area or place in which particular animals and plants can live.
Environment	An environment contains many habitats and includes areas where there are both living and non-living things
Evolution	Adaptation over a very long time
Natural selection	The process where organisms that are better adapted to their environment tend to survive and produce more offspring.
Fossil	The remains or imprint of a prehistoric plant or animal, embedded in rock and preserved.
Adaptive traits	Genetic features that help a living thing to survive. inherited traits These are traits you get from your parents. Within a family, you will often see

Charles Darwin, an evolutionary scientist, studied different animal and plant species, which allowed him to see how adaptations could come about. His work on the finches was some of his most famous.



# Years 5&6 Science Spring Term



## Properties and Changing Materials

### Key Knowledge:

Different materials are used for particular jobs based on their properties: electrical conductivity, flexibility, hardness, insulators, magnetism, solubility, thermal conductivity, transparency. For example, glass is used for windows because it is hard and transparent. Oven gloves are made from a thermal insulator to keep the heat from burning your hand.

### Reversible changes

Mixing and dissolving solids and liquids together, can be reversed by:

- Sieving - smaller materials are able to fall through the holes in the sieve, separating them from larger particles.
- Filtering - The solid particles will get caught in the filter paper but the liquid will be able to get through.
- Evaporating - The liquid changes into a gas, leaving the solid particles behind.

### Irreversible changes

This often results in a new product being made from the old materials (reactants). For example:

- burning wood produces ash
- mixing vinegar and milk produces casein plastic.

### Dissolving

A solution is made when solid particles are mixed with liquid particles. Materials that will dissolve are known as soluble. Materials that won't dissolve are known as insoluble. A suspension is when the particles don't dissolve.

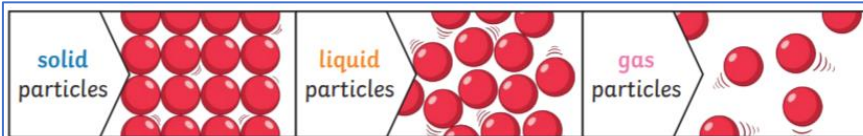
- Sugar is a soluble material.
- Sand is an insoluble material.



### Key vocabulary:

Material	The substance that something is made out of, e.g. wood, plastic, metal
Solids	One of the three states of matter. Solid particles are very close together, meaning solids, such as wood and glass, hold their shape.
Liquids	This state of matter can flow and take the shape of the container because the particles are more loosely packed than solids and can move around each other. Examples of liquids include water and milk.
Gasas	One of the three states of matter. Gas particles are further apart than solid or liquid particles and they are free to move around. A gas fills its container, taking both the shape and the volume of the container. Examples of gases are oxygen and helium.
Melting	The process of heating a solid until it changes into a liquid.
Freezing	When a liquid cools and turns into a solid.
Evaporating	When a liquid turns into a gas or vapour.
Condensing	When a gas, such as water vapour, cools and turns into a liquid.
Conductor	A conductor is a material that heat or electricity can easily travel through. Most metals are both thermal conductors (they conduct heat) and electrical conductors (they conduct electricity).
Insulator	An insulator is a material that does not let heat or electricity travel through them. Wood and plastic are both thermal and electrical insulators.

### States of matter



### Changes of State

The diagram shows four changes of state with corresponding images and text boxes:

- Solid to Liquid:** A snowman melting. Text: "The **solid** **melts**."
- Liquid to Solid:** Water freezing into ice. Text: "The **liquid** **freezes**."
- Liquid to Gas:** Water evaporating from a puddle. Text: "The **liquid** **evaporates**."
- Gas to Liquid:** Water condensing on a showerhead. Text: "The **gas** **condenses**."

# Years 5&6 RE Spring Term – Cycle B



## Is it better to express your beliefs in arts and architecture or in charity and generosity?

Islam and Christianity – learn about why their holy buildings and works of art matter to them as expressions of devotion to God and worship, and about how they practice generosity and charity.

Mosques



Cathedrals



Charities

### Key facts – Islamic Art:

\*Art in Islam is dominated by geometric designs usually with patterns, colour, texture and calligraphy. Islamic art is different because it is not just decorative but reminds the viewer of Allah (pbuh), the name Muslims give to their God. A lot of Islamic art is used for carpets, on buildings, especially mosques, as well as to hang on the wall.

\*Islamic art is beautiful patterns and calligraphy but no human or animal forms



### Key vocabulary:

Spiritual	Relating to people's thoughts and beliefs, rather than to their bodies and physical surroundings
Sacred	Something that is sacred is believed to be holy and to have a special connection with God.
Charities	an organization which raises money in order to help people who are sick or very poor, or who have a disability..
Generosity	willingness in giving away one's money and time
Art	paintings, sculpture, and other pictures or objects which are created for people to look at and admire or think deeply about.
Believers	If you are a great believer in something, you think that it is good, right, or useful.
Architecture	The architecture of a building is the style in which it is designed and constructed.
Scriptures	Any book or body of writings, especially when regarded as sacred by a particular religious group

### Key facts – Christian Art

\*Christian art is sacred art which uses themes and imagery from Christianity.

\*Images of Jesus and narrative scenes from the Life of Christ are the most common subjects.

