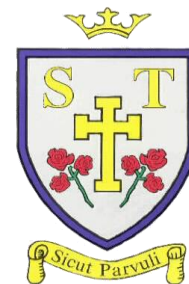


Science Sequencing of Topics in St Teresa's



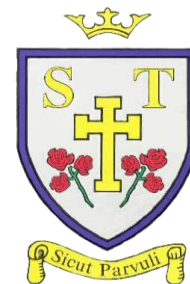
Our curriculum is planned and sequenced to build on knowledge and skills of what has been taught so far and what will be taught in the future.

See Rolling Programme Cycle A and B

ROLLING PROGRAMME CYCLE A						
EYFS						
	AUTUMN-1	AUTUMN-2	SPRING-1	SPRING-2	SUMMER-1	SUMMER-2
SCIENCE	Myself (body, senses, similarities and differences) Healthy eating and hygiene	Seasonal Change – Autumn-winter (include animals/bugs) The weather	Animals in hot and cold places Animals and their young Spring, planting and growing		Materials- Naming and sorting, exploring properties Summer	
Year 1/2 CYCLE A						
	AUTUMN-1	AUTUMN-2	SPRING-1	SPRING-2	SUMMER-1	SUMMER-2
SCIENCE	Seasonal change (throughout the year)	Animals including humans (body, senses, classification of animals and what they eat)	Living things and their habitats		Plants	Everyday materials
Year 3/4 CYCLE A						
	AUTUMN-1	AUTUMN-2	SPRING		SUMMER-1	SUMMER-2
SCIENCE	States of matter	Electricity	Animals including humans (nutrition, skeleton) Famous scientists and inventors throughout the year where relevant		Rocks	Forces and magnets
Year 5/6 CYCLE A						
	AUTUMN-1	AUTUMN-2	SPRING-1	SPRING-2	SUMMER-1	SUMMER-2
SCIENCE	Forces	Electricity	Earth and space	Living things and their habitats (life cycles)	Animals Including humans (heart)	Famous scientists

ROLLING PROGRAMME CYCLE B						
EYFS						
	AUTUMN-1	AUTUMN-2	SPRING-1	SPRING-2	SUMMER-1	SUMMER-2
SCIENCE	Myself (body, senses, similarities and differences) Healthy eating and hygiene	Seasonal Change – Autumn-winter (include animals/bugs) The weather	Animals in hot and cold places Animals and their young Spring, planting and growing		Materials- Naming and sorting, exploring properties Summer	
Year 1/2 CYCLE B						
	AUTUMN-1	AUTUMN-2	SPRING-1	SPRING-2	SUMMER-1	SUMMER-2
SCIENCE	Seasonal change (throughout the year)	Animals including humans (animal babies, growing and changing, basic needs, healthy eating, exercise, hygiene)	Plants and living things		Use of everyday materials	
Year 3/4 CYCLE B						
	AUTUMN-1	AUTUMN-2	SPRING-1		SUMMER-1	SUMMER-2
SCIENCE	Sound	Animals Including humans (digestion, teeth)	Living things and their habitats Famous scientists and inventors throughout the year where relevant		Light	Plants
Year 5/6 CYCLE B						
	AUTUMN-1	AUTUMN-2	SPRING-1	SPRING-2	SUMMER-1	SUMMER-2
SCIENCE	Evolution & inheritance	Living things and their habitats (classification)	Properties and changes of materials (1)	Properties and changes of materials (2)	Light	Animals Including humans (old age)

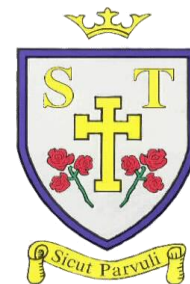
Science Sequencing of Topics in St Teresa's



Year 1

During the year	Plants Children need to draw on a range of different clues when learning to name and identify plants. Many plants change in appearance throughout the year – losing leaves, buds developing into flowers, flowers developing into seeds or berries. At any one time only some of these parts will be seen. Children therefore need to visit/observe the same plants during the year. If children do Year 2 Plants topic as the first cycle they would not have necessary prior knowledge from Year 1 topic to access their learning. Consequently, the following statement from the Plants topic in Year 1 needs to be covered in both cycles. • Identify and describe the basic structure of a variety of common flowering plants including trees This statement must be added to the Year 2 topic
Sequencing	Seasonal change Children gather data about seasonal change throughout the year. This could include making observations about the weather and how it affects living things. Data gathered can then be reviewed at the end of the year. Animals including humans Children need to understand that humans are animals. This topic can be then be split into two: animals; and humans.

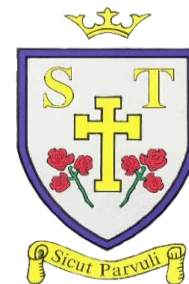
Science Sequencing of Topics in St Teresa's



Year 2

During the year	Living things and their habitats While learning to name and identify plants the children should draw on a range of different clues. Many plants change in appearance throughout the year – losing leaves, buds developing into flowers, flowers developing into seeds or berries. At any one time only some of these parts will be seen. Children therefore need to visit/observe the same plants during the year Animals visible in a habitat will change depending on the weather on the day and the season, In order to build up a full picture of the animals in a habitat the habitat should be visited at different times during the year. Plants Seeds and bulbs need to be planted at different times of the year (bulbs in Autumn and seeds usually in Spring). For these to reach full maturity they need to complete the life cycle. Once planted they need to be visited regularly to make observations of growth.
Sequencing	Uses of everyday materials This is a flexible unit and can match different creative curriculum themes or be taught as a stand alone unit. If children enter the year 2 Everyday materials topic as the first cycle, they would not have the necessary prior knowledge from the Year 1 topic to access the learning. Consequently, the following statement from the everyday materials topic in Year 1 would need to be covered in both cycles. • Distinguish between an object and the material from which it is made • Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water and rock. Different properties of material could be explored in each cycle or materials indoors in A and outdoors in B

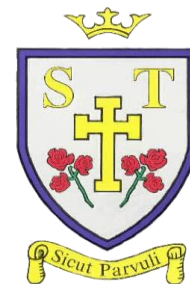
Science Sequencing of Topics in St Teresa's



Year 3

During the year	Plants Many plants have an annual cycle – having buds, flowers, seeds/berries at certain times in the year. Children therefore need to visit the same plants during the year gathering evidence linked to their life cycle e.g. collecting seeds and taking photographs or making observational drawings for buds, flowers etc. This evidence can then be reviewed at the end of the year to exemplify a range of plants' life cycles.
Sequencing	Plants This topic is best taught in the summer term when there is sufficient light in the classroom to grow seedling and plants as part of enquiry work. Links can be made between the Plants, Rocks and Light topics. The teacher should make the links explicit to the children. Animals including humans – can be split into nutrition and movement If children encounter the Year 4 Animals, including humans topic as the first cycle, they would not have the necessary prior knowledge that animals and humans “get nutrition from what they eat” from the Year 3 topic. Consequently, before teaching about the digestive system in the Year 4 Animals, including humans topic, the children will need to be taught that animals and humans get the nutrients they require from the food they eat.
	Rocks Links can be made between the Plants, Rocks and Light topics. The teacher should make the links explicit to the children.
	Light Links can be made between the Plants, Rocks and Light topics. The teacher should make the links explicit to the children.

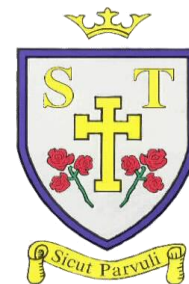
Science Sequencing of Topics in St Teresa's



Year 4

During the year	Living things and their habitats While learning to name and identify plants, the children should draw on a range of different clues. Many plants change in appearance over the year – losing leaves, buds developing into flowers, flowers developing into seeds or berries. At any particular time only some of these will be present. To ensure correct identification, all parts should be considered. Children should therefore visit the same plants during the year gathering additional clues for identification. Animals visible in a habitat will change depending on the weather on the day and the season. In order to build up a full picture of the animals in a habitat, the habitat should be visited at different times throughout the year.
Sequencing	Living things and their habitat / Animals including humans Children should be taught to construct and interpret a variety of food chains, identifying producers, predators and prey. This statement is within the Animals, including humans topic. In order to construct food chains based on their first-hand experience, this statement should be taught after they have visited a habitat to name and identify the plants and animals. If children encounter the Year 4 Animals, including humans topic as the first cycle, they would not have the necessary prior knowledge that animals and humans “get nutrition from what they eat” from the Year 3 topic. Consequently, before teaching about the digestive system in the Year 4 Animals, including humans topic, the children will need to be taught that animals and humans get the nutrients they require from the food they eat.
	Animals including humans Children should be taught to construct and interpret a variety of food chains, identifying producers, predators and prey. In order to construct food chains based on their first-hand experience, this statement should be taught after they have visited a habitat to name and identify the plants and animals as part of the Living things and their habitats topic. Teaching children to identify producers, predators and prey represents an opportunity for children to apply their knowledge of the function of teeth. Consequently, this would be best taught after learning about teeth.
	States of matter In the States of matter topic, children learn about solids, liquids and gases. This knowledge is required in order for children to understand, in the Sound topic, that vibrations from sounds travel through a medium to the ear. It is therefore appropriate to refer to the States of matter topic before the Sound topic if that cycle is encountered first.
	Sound In the sound topic, children need to understand that vibrations from sounds travel through a medium to the ear. It is useful if the children know about the three states of matter – solids, liquids and gases. It is therefore appropriate to teach the States of matter topic before the Sound topic. We therefore teach this in cycle A. This topic is conceptually more challenging and is therefore taught in cycle B

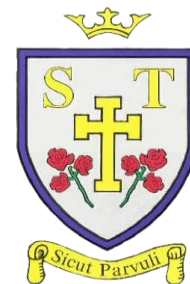
Science Sequencing of Topics in St Teresa's



Year 5

During the year	
Sequencing	Living things and their habitats Before learning about the life cycle of humans, it is helpful if children have learnt about the life cycle of plants and animals. It is therefore appropriate to teach the Living things and their habitats topic before the Animals, including humans topic. Animals including humans Before learning about the life cycle of humans, it is helpful if children have learnt about the life cycle of plants and animals. It is therefore appropriate to teach the Living things and their habitats topic before the Animals, including humans topic. The content in this topic is small and therefore requires less time to cover adequately than other topics. Properties and changes of materials There is a lot of content to cover in this topic and therefore we have allocated more time for sufficient coverage. We have separated the content into more than one topic i.e. 1 and 2 Earth and Space Forces topic is taught before Earth and Space so that children are able to use their understanding of gravity to help them make sense of why the planets orbit the Sun, and the Moon orbits the Earth. This topic is conceptually more challenging and is therefore taught in Spring 2. Forces Forces topic is taught before Earth and Space so that children are able to use their understanding of gravity to help them make sense of why the planets orbit the Sun, and the Moon orbits the Earth.

Science Sequencing of Topics in St Teresa's



Year 6

During the year	
Sequencing	Evolution and inheritance This topic is conceptually more challenging and is therefore best taught later in the year. If pupils encounter the Year 6 evolution and inheritance topic as the first cycle, they would not have the necessary prior knowledge from the Year 5 Living things and their habitats topic to fully access the learning so explicit links need to be made. Light This topic is conceptually more challenging and is therefore best taught later in the year. Living things and their habitats If children encounter the Year 6 topic as the first cycle, they would not have the necessary prior knowledge from the year 5 topic to access the learning. Consequently we have split the topic into each cycle; one focusing on life cycles; the other focusing on classification. Properties and changes of materials There is no learning interdependency between this topic and any other topic in this phase. However, it is the only Chemistry topic in Upper KS2 and it is a large one. We have therefore split it into two smaller topics over the Autumn term. Animals including humans This topic contains important information about puberty which should be delivered in Year 5. This topic should be taught to the Year 5 pupils as part of RSE Journey in love and PHSE outside of the science two year cycle for the phase. This should take place before pupils are taught the Year 5 Animals including humans topic.