


Shrewsbury Cathedral Catholic Primary School and Nursery – Long Term Plan – Science

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Nursery and Reception See knowledge matrices for progression. Units will be explored throughout the year.	Humans Play/Observe/Ask – Ourselves The Sun's journey.	Electricity Materials including changing materials Play/Observe/Ask – Winter/Snow & Ice Seasonal Changes	Light Sound Earth and Space Plants growth (bulbs in Spring/Sunflowers in Summer)	Animals excluding humans Living things and their Habitats Seasonal Changes	Farms and Animals In the Garden (Play/Observe/Ask Animals in My Garden) Caterpillar life cycle	Forces Play/Observe/Ask Football Seasonal Changes
Year 1	Materials Year 1 Unit 1.3 Seasonal Change Year 1 Unit 1.5	Materials Year 1 Unit 1.3 Seasonal change Year 1 Unit 1.5	Animals including humans – Senses and body parts Seasonal change Year 1 Unit 1.5	Animals, including humans - The Animal Kingdom Year 1 Unit 1.2 Seasonal change Year 1 Unit 1.5	Plants – Parts of a Plant Year 1 Unit 1.4 Seasonal changes Year 1 Unit 1.5	Plants – Identifying plants Year 1 Unit 1.4 Seasonal changes Year 1 Unit 1.5
Year 2	Animals including Humans – Life Cycles Year 2 Unit 2.2 Plants – Lifecycle and need Year 2 Unit 2.4	Animals including humans - Animal and their needs Year 2 Unit 2.3 Plants – Lifecycle and need Year 2 Unit 2.4	Living Things and their habitats – Living Things Year 2 Unit 2.2 Plants – Lifecycle and need Year 2 Unit 2.4	Living Things and their habitats – Habitats Year 2 Unit 2.6 Plants – Lifecycle and need Year 2 Unit 2.4	Everyday Materials Year 2 Unit 2.5 Plants – Lifecycle and need Year 2 Unit 2.4	Everyday Materials Year 2 Unit 2.5 Plants – Lifecycle and need Year 2 Unit 2.4
Year 3	Rocks and Fossils Year 3 Unit 6 Observation Over time – See appendix to select the term's focus.	Understanding our body Year 3 Unit 2 Visit to RAF Museum (pre teach for Forces and Magnets unit)	Forces and Magnets Year 4 Unit 3 Observation Over time – See appendix to select the term's focus.	Plants Year 3 Unit 4	Light Year 3 Unit 5 Observation Over time – See appendix to select the term's focus.	Animal Homes and Local Habitats Year 2 Unit 2.1 Year 3 Unit 1 (non national curriculum)
Year 4	Living things and their Habitats Year 4 Unit 1 Observation Over time – See appendix to select the term's focus.	Classification Year 4 Unit 2	Digestion Year 4 Unit 3 Observation Over time – See appendix to select the term's focus.	Electricity Year 4 Unit 4	Sound Year 4 Unit 5 Observation Over time – See appendix to select the term's focus.	States of Matter Year 4 Unit 6



Year 5	Forces and Materials Year 5 Unit 5.6 Observation Over time – See appendix to select the term's focus. Visit to Enginuity (links to Science and D&T)	States of Matter Mixtures and Reactions Year 5 Unit 5.4	Living Things and their habitats Year 5 Unit 5.2 Observation Over time – See appendix to select the term's focus.	Earth and Space Year 5 Unit 5.3 Visiting planetarium	Animal including humans – Human Development Year 5 Unit 5.5 Observation Over time – See appendix to select the term's focus.	Animals Including Humans – Looking after ourselves https://campaignresources.phe.gov.uk/schools/resources/physical-mental-wellbeing-year6-lesson-plan (non national curriculum)
Year 6	Living things and their Habitats – Classification Year 6 Unit 6.3 Observation Over time – See appendix to select the term's focus.	Electricity Year 6 Unit 6.4	Evolution and Inheritance Year 6 Unit 6.6 Observation Over time – See appendix to select the term's focus.	Light Year 6 Unit 6.5	Circulation and Respiration Year 6 Unit 6.2 Observation Over time – See appendix to select the term's focus.	Apply knowledge from each Science Theme in KS2 (non national curriculum)

The table above outlines the unit titles and link to Engaging Science Scheme. These are the units covered in each year group based on The National Curriculum (non-national curriculum units are indicated). Their order of teaching may change.

Each topic is linked to a unit in the Engaging Science which provides a guide for teaching but does not need to be followed exclusively. Teachers should also refer to the PLAN knowledge matrices and Explorify when planning lessons. EYFS use Play Observe Ask and PLAN knowledge matrices to plan opportunities which develop scientific questioning and vocabulary.

Observations over time are selected using appendix 1 and so can vary depending on class interest and what's going on in the environment.

Each unit is linked to a Front Cover Sheet. These share the intent with pupils, provided a list of differentiated knowledge-based learning that the children are expected to gain and develop through the unit. The most relevant Scientific enquiry skills are selected from our progression grid and added to the unit cover though further skills will likely be developed. Please refer to the power point in the subject folder for guidance on the five types of scientific enquiry. At the



end of each unit, children assess their enquiry skills and knowledge progression using the unit cover with increasing independence as they move through the school. Teachers then moderate 6 books.

Cherry Class pupils will engage with the topics where possible with their linked year group.

Each unit cover will also identify key vocabulary based on our progression of vocabulary.

For further useful sources and planning support, please see the planning folder.



Appendix 1:

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
How does a daffodil bulb change over the year?	What happens to my bean after I have planted it?	What happens to celery when it is left in a glass of coloured water?	How does the variety of invertebrates on the school field change over the year?	How do brine shrimp change over their lifetime?	What happens to a piece of bread if you leave it on the windowsill for two weeks?
How does my sunflower change each week?	How does a tadpole change over time?	How do flowers in a vase change over time?	How does an egg shell change when it is left in cola?	How does a bean change as it germinates?	How does my heart rate change over the day?
How does the oak tree change over the year?	How does the school pond change over the year?	How does tumbling change a rock over time?	Which material is best for keeping our hot chocolate warm?	How does our compost heap change over time?	How do different animal embryos change?
How does my height change over the year?	How much food and drink do I have over a week?	What happens when water keeps dripping on a sandcastle?	How does the level of water in a glass change when left on the windowsill?	How does a container of salt water change over time?	How much exercise do I do in a week?
What happens to materials over time if we bury them in the ground?	How long do bubble bath bubbles last for?	If we magnetise a pin, how long does it stay magnetised for?	How does the mass of an ice cube change over time?	How does a sugar cube change as it is put in a glass of water?	Does the temperature of a light bulb go up the longer it is on?
What happens to shaving foam over time?	What will happen to our snowman?	When is our classroom darkest?	How long does a battery light a torch for?	How does a nail in salt water change over time?	How would you group electrical components and appliances based on what electricity makes them do?
How does the colour of a UV bead change over the day?	Would a paper boat float forever?	Is the Sun the same brightness all day?	When is our classroom the quietest?	How long does a pendulum swing for before it stops?	How does my shadow change over the day?