YEAR 1	
Working scientifically **During years 1 and 2, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content:**	**Vocabulary**
• asking simple questions and recognising that they can be answered in different ways • observing closely, using simple equipment • performing simple tests • identifying and classifying • using their observations and ideas to suggest answers to questions • gathering and recording data to help in answering questions.	question answer observe observing equipment identify classify sort group record diagram chart map data compare contrast describe biology chemistry physics

Programme of study, skills and vocabulary

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Plants **Seasonal change**	**Seasonal change**	**Animals including humans** **Seasonal change**	**Everyday materials** **Seasonal change**	**Revisit Plants** **Seasonal change**	**Revisit Animals including humans** **Seasonal change**

Stories

Teaching science through stories | STEM

story-links-list.pdf

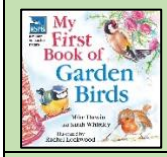
Book Lists for Primary Science Topics (booksfortopics.com)

diverse-representation-in-science-book-corner-suggestions-1.pdf

RSPB: My First Book of Garden Birds
(Mike Unwin and Sarah Whittley)

Snail Trail
(Ruth Brown)

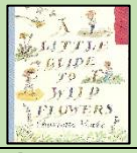
Superworm
(Julia Donaldson & Axel Scheffler)

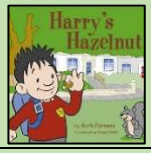


A Little Guide to Wild Flowers
(Charlotte Voake)

The Things That I LOVE about TREES
(Chris Butterworth)

Harry's Hazelnut
(Ruth Parsons)

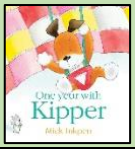




Tree: Seasons Come, Seasons Go
(Patricia Hegarty and Britta Teckentrup)

One Year with Kipper
(Mick Inkpen)

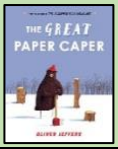
After the Storm
(Nick Butterworth)

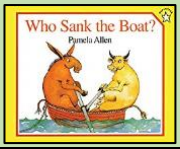


The Great Paper Caper
(Oliver Jeffers)

Who Sank the Boat
(Pamela Allen)

The Story of Cinderella
(Walt Disney)





Job titles

01 stem-careers-by-topic-1.pdf

Seasonal Change	**Key objectives** Observe changes across the four seasons Observe and describe weather associated with the seasons and how the day length varies	**Specific skills** Pupils should observe and talk about changes in the weather and the seasons. Pupils might work scientifically by: making tables and charts about the weather; and making displays of what happens in the world around them, including day length, as the seasons change.	**Vocabulary** season spring summer autumn winter weather hot/ warm cool/ cold sun/ sunny cloud/ cloudy wind/ windy rain/ rainy snow/ snowing hail/ hailing sleet frost fog/ mist ice/ icy rainbow thunder lightning storm light/ dark day/ night
	Big question?	**Famous names/inventions** Greta Thunberg TV Weather presenters Dr Steve Lyons (Extreme Weather) Holly Green (Meteorologist)	
Plants	**Key objectives** Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees Identify and describe the basic structure of a variety of common flowering plants including trees	**Specific skills** Pupils might work scientifically by: observing closely, perhaps using magnifying glasses, and comparing and contrasting familiar plants; describing how they were able to identify and group them, and drawing diagrams showing the parts of different plants including trees. Pupils might keep records of how plants have changed over time, for example the leaves falling off trees and buds opening; and compare and contrast what they have found out about different plants.	**Vocabulary** common wild plants garden plants tree deciduous evergreen trunk branches leaf root plant leaf bud flowers blossom petals root stem fruit vegetables bulb seed
	Big question?	**Famous names/inventions** Joseph Banks – botanist Local links – Westonbirt – Robert Holford – Victorian horticulturalist History of Westonbirt Arboretum | Forestry England Beatrix Potter Author & Botanist	
Animals including humans	**Key objectives** Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals Identify and name a variety of common animals that are carnivores, herbivores and omnivores Describe and compare the structure of a variety of common animals Identify and name, draw and label the basic parts of the human body and say which part of the body is associated with each sense	**Specific skills** Pupils might work scientifically by: using their observations to compare and contrast animals at first hand or through videos and photographs, describing how they identify and group them; grouping animals according to what they eat; and using their senses to compare different textures, sounds and smells.	**Vocabulary** **common animals fish amphibians reptiles birds mammals pets carnivores meat cat dog lion tiger fox shark killer whale eagle hawk snake herbivores plants cow hamster guinea pig tortoise omnivores meat and plants badger human bear chickens hear neck arms elbows legs knees face ears eyes hair mouth teeth**

	Big question?	**Famous names/inventions** David Attenborough Steve Backshall Chris Packham Joan Proctor (a herpetologist who designed London Zoo's reptile house) Jane Goodall – the scientist and conservationist who is famous for her work with chimpanzees. Evelyn Glennie – hearing impaired percussionist Stevie Wonder – blind singer songwriter Beatrix Potter Author & Botanist	
Everyday materials	**Key objectives** Distinguish between and object and the material from which it's made Identify and name a variety of everyday materials including wood, plastic, glass, metal, water and rock Describe the simple physical properties of a variety of everyday materials Compare and group together a variety of everyday materials on the basis of their simple physical properties	**Specific skills** **Pupils should explore, name, discuss and raise and answer questions about everyday materials so that they become familiar with the names of materials and properties. Pupils might work scientifically by: performing simple tests to explore questions, for example: 'What is the best material for an umbrella? ...for lining a dog basket? ...for curtains? ...for a bookshelf? ...for a gymnast's leotard?'**	**Vocabulary** **material wood plastic glass metal water rock properties hard soft stretch stiff shiny dull rough smooth bendy waterproof absorbent brick paper fabrics elastic foil**
	Big question?	**Famous scientists/inventions** William Addis Toothbrush Inventor Chester Greenwood-Earmuffs	