FRIARS PRIMARY SCHOOL & NURSERY

Science Curriculum Map

At Friars Primary School & Nursery, we cover the subject of science in a variety of ways. We prioritise investigative and experimental science as through this, we are able to use many transferable skills from English and Maths; using different genres to write up our investigations including recounts and reports; and showing our results in a variety of ways through mathematical measurements, graphs and charts. Appropriate use of the internet has enabled us to teach areas of science such as space so that children can truly observe what it is like. Wherever possible, practical applications are used to teach, prove and back up scientific ideas. All the children's work is recorded within their science books.

Year 1	
Autumn	Forces – pushes and pulls:- ◉ Identify what movement is ◉ Identify and name – push, pull ◉ Compare how different objects move ◉ Consider the physical process of movement on objects Everyday materials: ◉ Distinguish between object and material ◉ Identify and name materials ◉ Simple physical properties ◉ Compare and group Animals including humans:- ◉ Identify and name – including amphibian, reptile, vertebrate, invertebrate ◉ Identify and name – carnivores, omnivores, herbivores ◉ Describe and compare structure ◉ Identify and name parts of human body
Spring	Light and dark :- ◉ Weather and day length change (including light and dark) ◉ Identify light is essential to aid sight ◉ Observe and compare sources of light ◉ Understand the importance of the sun ◉ Recognise reflective properties Seasons :- ◉ Change over seasons
Summer	Plants throughout the year :- ◉ Identify and name – including deciduous and evergreen. ◉ Identify and describe their basic structure. ◉ Identify and name basic plant lifecycle and food Animals:- ◉ Identify and name – including amphibian, reptile, vertebrate, invertebrate

	◉ Identify and name – carnivores, omnivores, herbivores ◉ Describe and compare structure ◉ Identify and name parts of human body
Year 2	
Autumn	Everyday materials:- ◉ Identify and compare suitability of a variety of materials for particular uses ◉ How shapes of solid objects made of some materials can be changed ◉ Scientists to be studied / Dunlop, Macintosh or McAdam
Spring	Animals including humans:- ◉ Basic reproduction and growth ◉ Basic needs for survival ◉ Exercise, eating right amounts of food and hygiene
Summer	Living things and their habitats:- ◉ Dead, alive & never alive ◉ Living things in habitats ◉ Identify and name variety of animals and plants in different environments (including in 'micro-habitats') ◉ Food and simple food chains Plants:- ◉ How seeds & bulbs grow into plants ◉ Conditions for growth
Year 3	
Autumn	Rocks:- ◉ Compare and group rocks based on simple properties ◉ How and why *fossils* are formed ◉ Soils are made from rock and organic matter Forces and magnets:- ◉ Compare how things move on different surfaces ◉ Forces sometimes need contact, sometimes not ◉ Repulsion and attraction ◉ Magnets and magnetic/non-magnetic materials ◉ Magnets have two poles ◉ Predict whether magnets will attract or repel depending on poles
Spring	Animals including humans:- ◉ Animal and human nutrition ◉ Skeletons and muscles Light:-

	◉ Need light to see things and darkness is the absence of light ◉ Light is reflected ◉ Shadows and how they change ◉ Light from Sun can be dangerous
Summer	Plants:- Identify and describe functions of parts Requirements for life and growth Water transportation within plants Life cycle of flowering plants
Year 4	
Autumn	Sound:- ◉ How sounds are made – vibration ◉ Sound travels through air to the ear ◉ Patterns in pitch and volume of sound. ◉ Pattern between volume of sound and strength of vibration ◉ Sounds get fainter as distance from source increases Electricity:- ◉ Common appliances that use electricity ◉ Simple series circuit ◉ Complete circuit needed to light bulb ◉ Switches ◉ Conductors and insulators
Spring	States of matter:- ◉ Compare and group into solids, liquids and gases ◉ Changing state on heating and cooling ◉ Temperature ◉ Evaporation and condensation in water cycle (Not chemical change – baking or burning)
Summer	All living things including their habitats:- ◉ Group living things. Use classification keys ◉ Reasons for classifying ◉ Changing environments pose dangers to specific habitats Animals including humans:- ◉ Functions of digestive system ◉ Identify teeth and their functions ◉ Construct and interpret food chains (producers, predators and prey)
Year 5	
Autumn	All living things:- ◉ Life cycles – mammal, amphibian, insect, bird

	◉ Describe reproduction in some plants and animals ◉ Scientists to be studied David Attenborough and Jane Goodall Animals including humans:- ◉ Changes as humans develop Magnets (cross curricular link to Geography)
Spring	Forces:- ◉ Effect of gears, pulleys and levers including vibration Properties of everyday materials:- ◉ Compare and group together everyday materials according to properties ◉ Dissolving and evaporation ◉ Separating mixtures ◉ Give reasons for uses of materials (insulation/changing temperature) ◉ Reversible changes ◉ Some changes result in formation of new materials - including burning and acid with bicarbonate of soda ◉ Scientists to be studied Spencer Silver, Ruth Benerito
Summer	Earth and space:- ◉ Movement of Earth and planets relative to Sun ◉ Movement of moon relative to Earth ◉ Spherical bodies ◉ Day and night ◉ Scientists to be studied Ptolemy, Alhazen, Copernicus
Year 6	
Autumn	Forces:- ◉ Gravity ◉ Air resistance, water resistance and friction ◉ (Revision of the) Effect of gears, pulleys and levers ◉ Scientists to be studied Galileo and Isaac Newton
Spring	Electricity:- ◉ Identify and name parts of a circuit ◉ Associate brightness of bulb etc with number and voltage of cells ◉ Compare and give reasons for variations in how components function Light:- ◉ Light travels in straight lines ◉ We see because light is reflected or given out by objects ◉ Light travels from light sources ◉ Shadows change

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	Evolution and inheritance:- 👁 Fossils provide information about living things millions of years ago 👁 Offspring vary 👁 Adaptation may lead to evolution 👁 Scientists to be studied Charles Darwin, Alfred Wallace, Mary Anning
Summer	Living things including reproduction in plans and animals and the aging process:- 👁 Classification - in broad groups according to characteristics 👁 Reasons for classification 👁 Scientists to be studied Carl Linnaeus Animals including humans:- 👁 Circulatory system 👁 Impact of diet, exercise, drugs and lifestyle on the way bodies function