



St Barnabas

Church of England Primary Academy

A member of **CDARI**

**'That they shall have life,
life in all its fullness!'** John 10:10

**'Achieving great things through
learning and growing together in a
love-filled Christian family'**

Science Curriculum Overview

Year	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Reception- Understanding of the World	Our school environment, weather, where do I live? Our senses, our body, our family	Our local area, Christmas in other countries, life in India, Autumn, Weather, Health and safety, growing, Guy Fawkes, Remembrance day	Chinese new year, weather, maps, forces, machines, sea creatures, Winter	Weather, places in our local environment, food, materials, different occupations, King Charles	Spring, migration, maps, insects, observing and drawing pictures of animals and plants	Summer, maps, difference between our local area, the beach, space, old objects, Grandparents
Cultural Capital	<ul style="list-style-type: none"> Local History Walk: Visit significant buildings, monuments, or natural features. Invite a local historian or long-term resident. Community Helper Visits: Invite local police, firefighters, librarians, shopkeepers to talk about their roles. Nightingale Farm visitor 					
Year 1	Observe plants throughout the year Observe seasonal changes (LIGHT & ASTRONOMY) throughout the year (including sunlight, weather and link with plants)					
Year 1	Animals: Basic Structure Seasonal Changes		Everyday Materials	Everyday Materials.	Plants This is the block. However, this	Humans Emphasis on measuring body

		Identifying and classifying materials.	Experiments and investigations linked to material properties.	should be ongoing as part of seasonal change.	parts using non-standard units. . Present data in pictograms and bar charts.
Cultural Capital	<ul style="list-style-type: none"> • Visit Nightingale Farm • Invite a local person who works with materials (e.g., a potter, a builder, a jeweller, a baker) to talk about their craft, the materials they use, and the skills involved. • Dedicate a small area of the school garden to growing plants from different parts of the world, or plants traditionally associated with specific cultural celebrations (e.g., corn/squash/beans for Native American Three Sisters gardening, specific herbs for a cultural dish). 				
Year 2	Living things and their habitat (Focus on familiar and unfamiliar habitats and simple food chains).	Humans- Growth & Staying Healthy (Focus on the basic needs of survival, exercise, nutrition and recognising reproduction).	Uses of Everyday Materials (Focus on their suitable and unsuitable purposes).	Plants (growing plants).	Animal survival and growth (focus on an animal's basic needs and reproduction).
Cultural Capital	<ul style="list-style-type: none"> • Visit Nightingale Farm • Take a virtual tour of a famous national park, a coral reef, or a specific biome (e.g., the Amazon rainforest) and discuss the unique challenges and beauty of these unfamiliar habitats. • Product Designer/Crafter: Invite someone who designs products or creates crafts to talk about how they choose materials based on properties, cost, and sustainability, and how cultural factors might influence design. 				

Year 3	Light- Shadows and Reflective Surfaces	Animals and Humans- Health & Nutrition	Animals and Humans- Skeletons and Movement	Material properties- Rocks and Soils	Forces and Magnets	Plants- Functions of plant parts and growth
Cultural Capital	<ul style="list-style-type: none"> • Visit Knightingale Farm • Research key historical inventions that rely on forces or magnets (e.g., the wheel and axle, levers, compass, electromagnet). Create a timeline that discusses the impact of these inventions on human society and trade. 					
Year 4	Living things and their habitats	Animals including humans	Living Things and Their Habitats (Conservation)	Electricity	Sound	States of Matter
	<ul style="list-style-type: none"> • Visit Nightingale Farm • Research and compare the daily routines of children in different countries, focusing on aspects like diet, play, school life, and physical activity. Discuss similarities and differences, linking back to basic human needs and cultural variations. 					
Year 5	Material Changes-(reversible and irreversible changes).	Materials Properties-testing materials.	Light and Astronomy- Earth and Space	Forces- Friction and air resistance and mechanisms.	Living Things and Their Habitat- Observing Life Cycles	Human Life Cycles.

	<ul style="list-style-type: none"> • Visit Nightingale Farm • Encourage children to create a simple "family life cycle" album, including pictures (or drawings) of family members at different stages of their lives. Encourage them to interview grandparents or older relatives about their childhoods or important life events. This fosters intergenerational connection and personal history. • Learn about the historical space race (USA vs. USSR) and its cultural significance. Discuss key figures (e.g., Yuri Gagarin, Neil Armstrong, Valentina Tereshkova) and their impact on global aspiration. Explore current and future space exploration missions and their aims. 					
Year 6	Electricity	Animals including humans (blood and transportation)	Animals including humans (heart and health)	Evolution and Inheritance (incl. adaptations, survival of the fittest, reproduction and passing on traits)	Living Things and Their Habitat- (classification including subdivisions for vertebrates and invertebrates)	Light and Astronomy- How light travels.
	<ul style="list-style-type: none"> • Visit Nightingale Farm • explore how electricity transformed music, leading to electronic instruments and genres. Listen to examples of electronic music from different eras and cultures (e.g., early synthesizers, techno, EDM, film scores). • Look at how starlight and celestial phenomena have inspired art across cultures (e.g., Vincent van Gogh's Starry Night, Indigenous astronomy art). Children can create their own artwork inspired by light from space. 					