

Camelford Primary School Science Skills Progression

Science Pathway- ARB

Subject Lead: Jordan Garratt

Subject Vision

At Camelford Primary School, our vision is to provide creative opportunities for our pupils to investigate our natural world by nurturing their ideas and inspiring our students to ensure they foster a love for the environment they live in; and to prepare them so they may contribute to the wider community to become responsible citizens.

INTENT:

At Camelford Primary School, we recognise the importance of Science in every child's daily life. As one of the core subjects taught in primary schools, we aim to deliver a broad and balanced scientific curriculum from EYFS to the end of Key Stage 2 by following the Equals Curriculum for Science and Engagement Steps & Primary Steps assessment statements to ensure that all children develop scientific knowledge and understanding through the specific disciplines of biology, chemistry and physics. We aim to inspire our students to make informed decisions and think in scientific ways through our enquiry skills and approaches, so that they become increasingly confident in asking and answering questions and have a sense of wonder about the natural world around them.

IMPLEMENTATION:

The Science curriculum at Camelford Primary School ARB has been developed as part of our four-year rolling programme and is taught within topics that encompass the whole-school themes. Following the Equals Curriculum, as well as assessment statements from the Engagement & Prime Steps, the long-term planning has been designed to enable pupils to learn new knowledge, skills and relevant vocabulary, whilst revisiting and revising those previously learnt. Medium term planning is supported by the subject lead and lessons are sequenced with clear and relevant learning objectives to ensure curriculum coverage and opportunities to work scientifically are embedded within the learning. Learning includes in and out of classroom, local visits and links with our neighbouring Trust schools, to inspire and encourage curiosity and wonder.

IMPACT:

We aim for our children to have developed detailed scientific knowledge and skills, as well as continuing to be curious and retain their sense of wonder as they prepare for the next steps in their education and for their future. The quality of science education across the school is monitored and reviewed termly, this ensures our pupils experience, enjoy and have the potential to excel in their science journey with us at Camelford Primary School ARB.

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	Year 1			Year 2			Year 3			Year 4		
	Ourselves (12 weeks) Evolution of Man Science Focus	Our School (12 weeks) Our Community, Our World Geog Focus	Weather & Seasons (12 weeks) Environmental Warrior Science Focus	Toys (12 weeks) Invasion & Rebellion History focus	Spring & Growth (12 weeks) Environmental Warrior Science Focus	Creatures great & small (12 weeks) Evolution of Man Science Focus	Colour & Light (12 weeks) Environmental Warrior Science Focus	Communities & Cultures (12 weeks) Our Community , Our World Geog Focus	On the move (12 weeks) Evolution of Man Science Focus	Journeys (12 weeks) Transport & Railways- British Values History Focus	Houses & Homes (12 weeks) Invasion & Rebellion History Focus	Out & About (12 weeks) Transport & Railways- British Values History Focus
A R B	Ourselves 1.2b Humans S2e Me and my interactions P1a Teeth & Eating 2.2e	Sorting & using materials 1.3a Local Environment AZ4.1	Living Things P3a Plants S3e Growing Plants 1.2b Floating & Sinking S5a	Pushes & Pulls S1.4b Forces & Motion P2C , S2b Materials & Grouping S1, 2, 3c	Health & Growth 2.2a Plants S3e	Animals: domestic, farm, mini beasts S1, 2 & 5f Life Cycle AZ2.2 Animals: Zoo, aquatic, wild 3 & 4f Living things (animals) P2a	Light & Dark S1b, 5b, 1.4a, P3c Light & Shadows S3b 2.4c	Keeping Warm 2,3d Characteristics of Materials 2.3a, P3b	Forces & Movement 2.4a, S4b Moving & Growing 2.2b	Sound & Hearing S1a, 1.4c The environment & further afield AZ4.2	Rocks & Soils 2.3b Using Electricity 2.4b	Materials Changing S1, 2,3,4,d 2.3c Magnets & magnetism 2.4d

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The following documents detail the Engagement Steps and Primary Steps statements and the progression of skills within each of the given topic areas. Each progression of skills document shows expectations for levels Engagement Steps 1-6 and Primary Steps 1-3

How should this be used to help plan learning opportunities?

Teachers must ensure that they use the progression of skills to guide their planning, teaching and assessment. They should inform their planning for each child inline with their level in each subject area. However, due to the fact that we have mixed classes at Camelford ARB, teachers must use their professional judgement.

How can this be used by subject leads and SLT?

Subject Leads and SLT should use the progression of skill statements and subject coverage documents to ensure the correct coverage is happening across the school, at the right times, that the areas being taught are relevant (as per the pathway) and that they are pitched to the right level ensuring challenge. The journey of a child in their time at Camelford ARB should be carefully monitored to ensure their learning is progressive and varied.

Engagement Steps 1-6

Cognition & Learning: Exploration Description

This shows whether a pupil can build on their initial reaction to a new stimulus or activity; for example, whether they display more than an involuntary or startled reaction to the activity. Additionally, the pupil may be interested in and curious about the stimulus or activity; for example, they may notice it or reach out to it.

Exploration becomes more established when the pupil is still responsive to the same stimulus or activity when it is presented in different contexts or environments; for example, a different time of day, a different place or with different people.

Exploration is important in identifying which stimuli or activities interest the pupil and motivate them to pay attention and investigate them further, so that they can develop new knowledge and skills.

Sensory & Physical: Auditory Operation Description

Assessment of Auditory Sensory Operation measures the extent to which a pupil reacts to the sensation and perception of sound.

Sensory & Physical: Tactile Operation Description

Assessment of Tactile Sensory Operation measures the extent to which a pupil reacts to the sensation and perception of touch.

Sensory & Physical: Olfactory/Gustatory Operation Description

Assessment of Olfactory/Gustatory Sensory Operation measures the extent to which a pupil reacts to the sensation and perception of taste.

Sensory & Physical: Visual Operation Description

Assessment of Visual Sensory Operation measures the extent to which a pupil reacts to the sensation and perception of light.

Primary Steps: 1-3

Science: Animals, incl Humans Description

Assessment of Science Animals, incl Humans measures the extent to which a pupil understands the features & needs of a variety of animals, including humans.

Science: Earth & Space Description

Assessment of Science Earth & Space measures the extent to which a pupil understands the world around them, including in their immediate environment.

Science: Electricity Description

Assessment of Science Electricity measures the extent to which a pupil understands the uses for electricity and basic knowledge on how electricity makes products work.

Science: Everyday Materials Description

Assessment of Science Everyday Materials measures the extent to which a pupil understands the properties and uses of a range of materials.

Science: Evolution & inheritance Description

Assessment of Science Evolution & Inheritance measures the extent to which a pupil understands the adaptation and features of humans, and where they come from.

Science: Forces Description

Assessment of Science Forces measures the extent to which a pupil understands the uses of forces and basic knowledge on how forces effects a range of items.

Science: Forces & Magnets Description

Assessment of Science Forces & Magnets measures the extent to which a pupil understands the uses of magnets and basic knowledge on how magnets effect a variety of materials.

Science: Light Description

Assessment of Science Light measures the extent to which a pupil understands the uses for light and basic knowledge on how light is effected.

Science: Living things and their habitats Description

Assessment of Science Living things and their habitats measures the extent to which a pupil understands the the needs and features of living things.

Science: Plants Description

Assessment of Science Plants measures the extent to which a pupil understands the needs and features of plants.

Science: Properties and Changes of Materials Description

Assessment of Science Properties and Changes of Materials measures the extent to which a pupil understands the properties and uses of a range of materials, including those that have reversible and irreversible change.

Science: Rocks Description

Assessment of Science Rocks measures the extent to which a pupil understands the features of a variety of rocks and minerals.

Science: Seasonal Changes Description

Assessment of Science Seasonal Changes measures the extent to which a pupil understands the features of the weather, seasons and how they change, including how to adapt our lives around these changes.

Science: Sound Description

Assessment of Science Sound measures the extent to which a pupil understands the uses for sound and basic knowledge on how to effect sound, including manual and digital sound.

Science: States of Matter Description

Assessment of Science States of Matter measures the extent to which a pupil understands how the properties of a range of items can be changed, including reversible and irreversible changes.

Science: Uses of Everyday Materials Description

Assessment of Science Uses of Everyday Materials measures the extent to which a pupil understands the properties and uses of a range of materials and products that they would come into contact with regularly in daily life.

PSHE: Physical Health & Mental Wellbeing: Healthy Eating

Assessment of PSHE Healthy Eating measures the extent to which a pupil understands how to maintain a balanced diet **and healthy lifestyle**.

Computing Description

Assessment of Computing measures the extent to which a pupil understands the processes and uses of ICT in everyday life.

*beyond these assessment tools and statements, pupils in ARB would move on to YR1-YR6 statements for assessment found under the same categories on B2 Connecting Steps. We do not currently have pupils in our ARB working close to this level.