Broom Leys Primary School

Computing

A Whole School Approach to developing Computing education.

"A high-quality computing education equips pupils to use computational thinking and creativity to understand and change the world." (NC 2014)

Intent

Our Computing Curriculum inspires children at Broom Leys to make safe, informed choices about how they use, communicate, create and problem solve with digital technology and technological devices. Allowing them to build their *"knowledge, understanding and skills for continuous lifelong learning"* (SWGL). All children are, therefore, encouraged to be computational thinkers: to look at problems in detail (decompose); to explore systematic solutions (logical reasoning); to write instructions (algorithms); try out, fix (debugging) and evaluate.

Success in computing enables each child to apply their computational thinking skills independently when solving problems. To do this we aim to provide a knowledge rich curriculum that is inspiring and has a practical approach to learning. The computational knowledge and skills developed by each child will enable them to be prepared to live in a digital world safely but also provide them with a secure foundation to study computing beyond Key Stage Two.

Children will leave Broom Leys as innovative, resilient problem solvers with the ability to think critically and creatively. They will be able to use their knowledge and skills to design and create systems and solutions with technology. They will have (a strong) awareness of the opportunities and risks associated with the online world, as well as the (confidence and) independence to make informed choices when faced with challenging situations.

Implementation

To enable the children to become safe, responsible, creative, curious, logical and competent learners the computing curriculum is decomposed into five Learning Areas: e-safety; programming; multi-media; data handling and technology in our lives. As children move through Broom Leys they are introduced to new knowledge and skills within each Area of Learning (AoL). Each academic year these are revisited allowing each child to retrieve, consolidate and build upon prior knowledge in a systematic and structured way.

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
EYFS	Computational thinking	Computational thinking	Computational thinking	Computational thinking	Computational thinking	Computational thinking
Yr 1						
Yr 2						
Yr 3	Basic skills					
Yr 4						
Yr 5						
Yr 6						

Key: Area of Learning

- E-safety
- Programming
- Multimedia
- Data handling
- TIOL

Each AoL is taught using carefully selected units from the New Wessex Computing Planning (SWGL) which have, where necessary, been adapted to meet the needs of children at Broom Leys. Together the units ensure coverage of the National Curriculum and progression of key computing knowledge and skills. They support each child's acquisition of knowledge, through the use of key concepts, terms, vocabulary and by providing opportunities to build a shared and consistent understanding. (See Computing Curriculum Map & AoL Knowledge Maps in appendix).

Each lesson, within a unit, is sequenced so that it builds on the learning from the previous lesson, and where appropriate, activities are scaffolded so that every child can succeed and thrive. Scaffolded activities provide children with smaller chunks of knowledge; question prompts; modelling and spoken commentary to make decision making choices explicit, so they can reach the same learning goals as the rest of the class. Children are also given the opportunity to foster a deeper understanding of a concept, by applying their learning in different contexts and by make connections with other learning experiences.

EYFS

Our EYFS curriculum builds readiness for later learning in Computing by fostering the children's curiosity, questioning and everyday problem solving (Computational Thinking) skills alongside their understanding of our technologically diverse world.
Children are encouraged to develop their Computational Thinking skills through a range of "unplugged" activities which require them to: play and explore (tinker); make, check and fix things (create); cooperate with others (collaborate) and persevere.
The children will learn to describe and compare what they have noticed; explain the choices have made; why things happen and break down the sequence of how they have solved a problem.
They will share their learning by recording what they say or hear, taking videos or photographs, creating pictures or adding labels.

Impact

It is our aim that the impact of our carefully crafted curriculum design will lead to outstanding progress over time across key stages relative to each child's individual starting points and their progression of skills. Our vision is for our ambitious Computing curriculum is to equip the children at Broom Leys to be enthusiastic learners, computational thinkers and problem solvers who are aware of the benefits and risks of using technology. We strive to evidence how much our children enjoy and engage with our Computing curriculum in a range of ways: including pupil voice and teacher assessment. We ensure that all children, including those who are achieving well, as well as those who need additional support, are identified, and additional provision and strategies are planned in and discussed with class teachers to ensure successful outcomes for all.