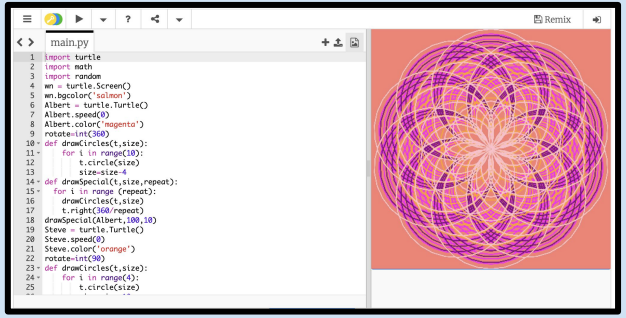

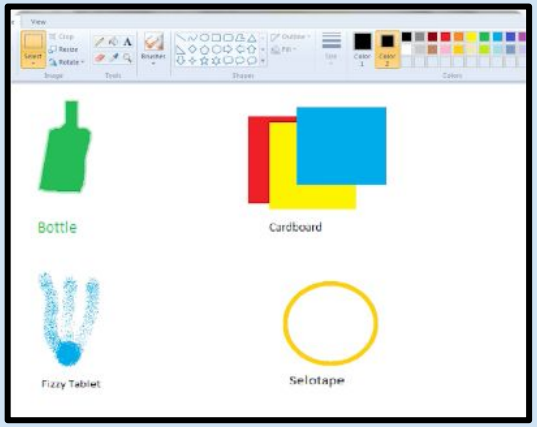

Computing

Westlands Primary School

Swale ACADEMIES TRUST

Intent

A high quality education in Computing equips pupils to use computational thinking and creativity to understand and change the world. Computing ensures that pupils become digitally literate in a digital world. Computing links to Mathematics, Science and Design and Technology and provides insights into both natural and artificial systems. The core strands of Computing are: Computer Science - in which pupils explore the principles of information and computation, understand concepts such as data, algorithms, how digital systems work and how to put this knowledge to use through creating programs and systems. Information Technology - in which pupils explore the principles of effective multimedia design, learn spreadsheet formulae and create a range of digital artefacts. Digital Literacy - in which pupils learn skills such as how to perform an advanced web search and identify the features of unreliable content.

Our intent is that through a rich and varied curriculum, this will enable children to express themselves, and develop their ideas, through information and communication technology at a level suitable for their future workplace - giving them the tools to become active and confident participants in a technological age.

Implementation

How is Computing taught at Westlands Primary School?

At Westlands Primary School, we use the Kapow Scheme of Work to inform our planning. The Computing curriculum covers the three main strands of Computing as a field of study. These strands are regularly revised and revisited, enabling pupils to build their knowledge over time. By learning about these different contexts and regularly revisiting them, pupils can then add new knowledge to what they already know, building complex structures, or schemata, that link knowledge and create meaning.

Inclusive Practice - Bespoke for the subject

Within our teaching of Computing, learning opportunities are designed in such a way that the emphasis is on pupils asking questions, exploring different approaches and challenging their own and each other's ideas. We provide children with tasks which are suited to their developmental age and their skill level. Within the classroom, there is always an open discussion happening as the whole class are involved in the session. Throughout all lessons key vocabulary is being used and referred back to, children are reminded of their meanings and given opportunities to use the vocabulary as they produce their work.

Enrichment Activities

In Computing we aim to provide opportunities for children to explore their learning in a more practical way. Some Computing enrichment activities at Westlands Primary include:

- A weekly Computing Club
- Digital Leaders
- National Online Safety focus
- Wake up Wednesday! - information shared with parents weekly
- TTRockstars, Get Epic, Oxford Owl - Home learning support.

Enrichment activities often see high levels of pupil engagement as well as providing valuable and memorable experiences.

Impact of your curriculum

At Westlands Primary we measure children's progression in Computing against the core curriculum skills and objectives for each key stage. By the end of each key stage, pupils are expected to know, apply and understand the skills and processes specified in the Programme of Study.

<u>This will be evidenced through:</u>

- Work completed in the lesson
- Photographs
- Observations and learning walks
- Digital evidence
- End of unit assessments

EYFS Framework relating to Computing

This shows how the skills taught across EYFS feed into the national curriculum.
The most relevant statements for Computing are taken from the following areas of development;

- Personal, Social and Emotional Development
- Physical Development
- Understanding of the World
- Expressive Arts and Design

By the end of reception children will be able to -

- Access and use a range of technological tools both digital and non-digital during play to capture their learning
- Read online
- Explain the reasons for rules, know right from wrong and try to behave accordingly online

National Curriculum

National Curriculum Expectations	
Key Stage 1 pupils should be taught to:	**Key Stage 2 pupils should be taught to:**
• Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions. • Create and debug simple programs. • Use logical reasoning to predict the behaviour of simple programs. • Use technology purposefully to create, organise, store, manipulate and retrieve digital content. • Recognise common uses of information technology beyond school. • Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.	• Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. • Use sequence, selection, and repetition in programs; work with variables and various forms of input and output • Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. • Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration. • Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content. • Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. • Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.