

Computing

Intent, Implementation and Impact



We always try to be that little bit better

Introduction

At the centre of our curriculum are our school aims and drivers, and computing provides our children with the ability to link and communicate confidently with the world around them, preparing them to be well-rounded global citizens for a future in that world. At Seaburn Dene, we aim to provide all of our children with a high-quality education in computing which will help them realise their **aspirations** in an ever changing and expanding digital world. Through high-quality teaching and learning, our vision is to provide children with the ability to enhance their knowledge, skills and understanding through different types of media whilst keeping safety at the forefront of their minds.

Intent

Through the adapted use of Purple Mash, a clear and comprehensive online scheme of work, children progress in their computational knowledge and creativity - working in line with the National Curriculum. Our aims are:

“A high-quality computing education equips pupils to use computational thinking and creativity to understand and change the world...core of computing is computer science, in which pupils are taught the principles of information and computation, how digital systems work, and how to put this knowledge to use through programming. Building on this knowledge and understanding, pupils are equipped to use information technology to create programs, systems and a range of content.” National Curriculum

Computing teaching has links with mathematics, science and design and technology and our aim is to provide a broad and balanced curriculum whilst ensuring that pupils become digitally literate and digitally resilient. Technology is ever evolving and we aim to develop pupils who can use and express themselves, develop their ideas through information and communication technology at a suitable level for the future workplace and as active participants in a digital world.

The aims of our Computing curriculum are to develop pupils who:

- Are responsible, competent, confident and creative users of information and communication technology.
- Know how to keep themselves safe whilst using technology and on the internet and be able to minimise risk to themselves and others.

- Become responsible, respectful and competent users of data, information and communication technology.
- Can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems.
- Can analyse problems in computational terms, and have repeated practical experience writing computer programs in order to solve such problems.
- Can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation.
- Become digitally literate and are active participants in a digital world.
- Utilise computational thinking beyond the Computing curriculum.
- Understand and follow the SMART E-Safety rules.

SEND children in our school are supported in their learning across the curriculum: 1:1 and small-group support is given when needed. Lessons are also adapted for those children who are working at greater depth in computing.

Implementation

Planning

1. Long term: Purple Mash planning, consisting of six units per year group, from Year 1 to Year 6. Each unit consists of activities linked to the strands of learning contained within the National Curriculum.
2. Medium term: The Purple Mash Scheme provides teachers with week-by-week lesson support for each year group in the school. The scheme is adapted to ensure children progress in their computational knowledge and creativity - working in line with the National Curriculum. All children begin each half-term with an online safety lesson (National Online Safety).
3. Short term: At Seaburn Dene, the Purple Mash individual lesson plans are combined with additional activities to enhance digital literacy (e.g. coding) and to enable children to become confident, responsible users of technology .

To enhance computing skills, we also provide opportunities for:

- Data collection and logging (eg science and Wow Travel Tracker).
- Know how to keep themselves safe online and be able to minimise risk to themselves and others.
- Evaluating sources of online information when researching (e.g. history).

Teaching

Teachers use consistent and continual assessment to ensure children are engaged, catered for and being pushed not only by the subject matter involved but by the technologies and programmes they are using.

Opportunities for visits and visitors to allow children to explore the application of the skills learnt in real life situations, beyond their own digital devices, e.g. Nissan's Monozukuri Caravan, Barclays' Digital Eagles and Sunderland University's Media Centre.

Learning Environment

Most computing lessons are practical and take place in our Computer Suite. We have a wide range of resources to support our computing teaching, such as: desktop computers, chromebooks and data loggers, alongside IT support.

Impact

We measure our impact of our curriculum through the following methods:

- A reflection on standards achieved against a clear skills progression document
- Termly teacher assessments
- Pupil voice
- Parent feedback
- Monitoring
- Flashback 4 - revisiting, and assessing, previous learning.
- Flashforward 4 - identifying careers, vocabulary and aspirational links from the topic to the real world.