Subject Overview: Computing

'Our Vision is for every child to love learning, be compassionate and achieve now and in the future. Working together with our communities, we will give our children roots to grow and wings to fly.'

Our Aims in computing:

At Portsdown Primary School and Early Years, we believe technology should be used to support and enhance children's learning. We know computing will play a huge part in our pupils' future and therefore it is essential we provide children with confidence in technology for a rapidly changing world. Our teaching of computing will enable the children to develop creativity, computational thinking and the ability to change the world.

Children in Portsdown Primary School and Early Years will learn the 3 core principles of computing:

	This includes:
Digital literacy	• online safety • understanding the use of technology around us in our everyday lives.
Information technology	• creating and using different medias • data handling and presenting data using different types of technology
Computer science	• programming

Planning and Teaching

At Portsdown, our computing lessons are planned, taught and assessed with the children's staring points in mind. We are using and are continually adapting the DFE's Teach Computing scheme to enable all of our children to be successful in computing. When teaching online safety to the children, we also use and adapt Project Evolve activities and lessons and are beginning to use Google's 'Be Internet Legends' to ensure we are proactive with the online safety needs of our children.

All children begin the year with a focus on online safety which is then continually revisited throughout the rest of the year, this is then followed by a unit about the technology around us and how it works. Children are then introduced to topics covering the 3 core principles, each year group's sequence of topics are individual depending on the skills and knowledge they are being taught.

The Primary School builds upon the learning in the nursery and into Year R. Computing in the Nursery and Year R is a key part of the 'Understanding the World' area of the EYFS Curriculum (although there are also key links to the Physical Development; Personal, Social and Emotional Development; and Literacy areas of the EYFS Curriculum). The children are provided with access to tablets, computers, programmable devices and interactive whiteboards to be able to practise and develop their computing skills. Within the role play areas, they will also have access to decommissioned digital devices. Children will discuss online safety through stories and role play.

Assessment

Through our carefully adapted lessons and teaching, the children will leave the primary school:

By Year 6 Portsdown children should be able to:

- Know how create and use passwords, keep their identities safe online and seek support from relevant adults when reporting concerns. (Online safety)
- Know the how a physical computer works and understand the purposes and processes of the internet. (Technology around us)
- Confidently use a track pad, mouse and keyboard and use a range and combination of media to achieve a desired outcome (creating media)
- Plan, select effective tools, collect, analyse and present data appropriately using different types of technology (data handling)
- Break problems into smaller steps, explain the steps created, create an algorithm and continually test and debug using variables, inputs and logical reasoning to support (Programming)
- Become confident with using a computer independently to perform a variety of tasks.
- Enjoy computing.

We have a carefully designed a set of skills using the 3 core principles for each year group that links closely to the aims of the National Curriculum. These are used to support staff in assessing the children in their classes, challenging children and differentiating to meet the needs of the individuals. At the end of each unit, teachers are able to refer back to the skills and these can be used to identify the children's next steps and any children who may need additional support. These are recorded to show how the children are progressing with computing throughout the year using a scale of working below the expectations, working at or working above.

At Portsdown Primary School and Early Years, we then take the set of skills and identify the key areas of learning to consider what skills we would like the children to know by the end of Year 3 and Year 6 enabling us to check the teaching and lessons are appropriate and achievable for our children.

Monitoring the Quality of Teaching and Learning

Monitoring of computing is achieved through various ways. These include pupil interviews, saving work into a shared area on the system, end of unit evaluations to teachers and regular emails informing staff of next units and any support that can be offered. The

monitoring of computing enables us to look at next steps for the students and changes that need to be made to the current lessons. We are also able to identify any key areas we still need to work or that children are not retaining or linking to their everyday lives.