



Onslow Infant School

Computing Policy

This school is committed to safeguarding and promoting the welfare of children and young people and expects all staff and volunteers to share this commitment

This policy should be read alongside our Online Safety Policy, Staff Acceptable Use Agreement, Inclusion Policy, PSHE & RSE Policy, Learning and Teaching Policy and the Safeguarding Child Protection Policy

Policy Review

This Policy was reviewed in Summer 2024
The Policy will be reviewed in Summer 2027

The importance of a computing curriculum

Computing is an essential part of the Onslow Infant School curriculum. It extends and enhances learning in all subject areas and the ability to use it effectively is a vital life skill in modern society.

At Onslow Infant school, our collective aim is:

- For all learners to meet the requirements of the Early Years Foundation Stage Framework and the National Curriculum appropriate for their age.
- To help learners become confident and effective users of technology.
- To enrich and enhance the learning and teaching across the curriculum through effective use of technology.
- To use the technology available to us to stimulate children's imagination and support their creativity.
- To provide a relevant, challenging and enjoyable curriculum for computing for all pupils in the school.
- To meet the requirements of the RSE curriculum 2020, as a minimum.

How is Computing taught at Onslow Infant School?

EYFS follow the statutory framework for the early years foundation stage (EYFS) where play is viewed as essential for children's development, building their confidence as they learn to explore, relate to others, set their own goals and solve problems. Children should learn by leading their own play and by taking part in play, which is guided by adults. Class teachers will decide the most effective ways to teach it.

Teachers must stimulate children's interests, responding to each child's emerging needs and guiding their development through warm, positive interactions coupled with secure routines for play and learning.

Despite computing not being explicitly mentioned within the Early Years Foundation Stage statutory framework, there are many opportunities for young children to use technology to solve problems and produce creative outcomes in their play. Technology use is entwined in our daily learning, particularly in maths and literacy.

KS1 follow the statutory framework for computing in the National Curriculum 2014 which states that children must be taught to:

1. Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions.
2. Create and debug simple programs.
3. Use logical reasoning to predict the behaviour of simple programs.
4. Use technology purposefully to create, organise, store, manipulate and retrieve digital content.
5. Recognise common uses of information technology beyond school.
6. 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 and other online technologies.

Timetabling of computing is flexible and may involve whole day or weekly time allocations as well as individual sessions and continuous provision activities. There is a plan of content coverage for each year group, which ensures all National Curriculum content is covered within the school and enables children to develop the required skills in the subject areas. At Onslow Infant School, EYFS and Year 1 follow a continuous provision approach to learning.

In order to meet the requirements of the statutory EYFS and National Curriculums, 'Switched on Computing' is used as a basic framework for the compulsory skills that need to be taught. Planning overviews for the year and term is established in year group teams and monitored by the subject leader. Short term weekly planning is completed in year group teams and may adapt in response to assessment.

We use a mixed approach of discrete teaching in weekly computing lessons, delivering specific parts of the curriculum, and cross-curricular tasks to enhance the curriculum in other subjects. Practitioners teach children by ensuring challenging, playful opportunities across the prime and specific areas of learning and development. They foster the characteristics of effective early learning through:

- Playing and exploring
- Active learning
- Creating and thinking critically

Technology may be used in the following ways to enhance creativity and engagement of our learners across the curriculum.

- A writing or topic hook may be created using sound effects coming from an iPad disguised as a dinosaur egg or a lost alien in a crashed space ship. An iPad might set up in a research lab role play to project real time observations of animals in their natural habitat. This all gives the children first hand experiences of the sights and sounds linked to their topic.
- Handheld devices and portable technologies are used both within the indoor and outdoor learning environments to enhance learning. Internet searches can be made quickly and safely to follow a child's interest or find examples of work by a craftsperson to stimulate ideas for a creative project.
- Microscopes may be used to enhance science technology.
- Digital thermometers and scales may be used to record weather data with links to maths and science curriculums.

Teachers employ a range of strategies to support different learning styles appropriate to the age groups they are teaching. These may include:

- Using an interactive board to demonstrate to the class.
- Individual or paired work.
- A group / class discussion or task about computing and safety online.
- Collaborative work in groups, for example, using floor robots, iPads or robotics.
- Children are encouraged to ask and answer questions about technology and its development.
- The use of storybooks is used to introduce children to safety rules.
- As well as class-based activities, outdoor learning is used to develop and reinforce computing skills and knowledge in a practical way. For example following a series of instructions as an introduction to algorithms.

Enrichment Activities

Onslow Infant School actively encourages pupils to be able to experience computing through enrichment activities. These include:

- Wow Days such as a robotics day in Year 2 with Surrey University.
- Whole school subject weeks on STEM (three year cycle).
- Visitors coming into school to share hands-on technology experiences.
- Specific software and online resources such as ICT Games, Purple Mash 2Simple software and iPad apps, providing opportunities for computing to develop children's learning.

Marking, Assessment Recording and Reporting

Computing will be assessed in line with both our Assessment and Marking policies.

- Marking will, whenever possible, take place with the child either at the end or during the piece of work to provide instant feedback. It can be verbal feedback in person or written feedback on Tapestry or Purple Mash if work is saved to these platforms.
- Marking should build the child's confidence and self-esteem.
- Children will be encouraged to evaluate their own work or peer's work by looking at work on the larger screen (e.g. Year 2 PowerPoint presentations on artists and Year 1 weather reports).
- Presentations to the wider school audience, e.g. the Year 2 music composition concert.
- Peer feedback and review may be achieved in small groups, e.g. when using robots.

EYFS and KS1 teachers make ongoing Tapestry observations of individual achievement against year group expectations for a topic or unit of work.

Information gained from evaluations and assessments, with all staff in the class, will be used to inform future planning. Gaps in learning are identified along with individuals who need challenging or require extra support. This information is then discussed with year group leaders of learning.

At the end of each year, a judgement is made as to whether KS1 pupils are achieving a level of either: working below, working towards, expected, exceeding or working beyond in Computing.

Inclusion and Diversity

Throughout the teaching of computing, children are encouraged to talk and work in mixed ability pairs and groups. This enables all children to participate in lessons and promotes the inclusion of children with special educational needs and disabilities (SEND), children who come from disadvantaged backgrounds and children who come from a family where English is an additional language (EAL).

- All efforts are made to ensure equipment meets the needs of individuals as well as the curriculum.
- Accessibility functions on Apple iPads are used to enlarge font size, read text on screen and enlarge images. Where this is necessary to support learning.
- All children will be given the necessary support to access the curriculum and allow them to carry out tasks at their own level. This may include more adult support, visual aids including pictorial task plans, modification of tasks e.g. working on the same objectives but with an alternate choice of media – voice recording or dictation rather than typing.

Provision will be made, when necessary, for pupils to extend their experiences beyond that of the majority of the class by one of the following:

- Reducing the level of support provided and thereby increase the need for independent thinking.
- Increasing the level of skills and knowledge.
- Applying skills and knowledge to an unfamiliar context.
- Setting more challenging criteria in activities.

Homework

No homework specific to computing or technology (EYFS) is set but children may be encouraged to use technology to record their homework. Tapestry for EYFS and Year 1 and Purple Mash for Year 1 and Year 2. Online activities on external websites may be set to practice or revise a learning objective as part of the homework. All sites will be age appropriate.

Resources

Computing resources are kept in communal areas. At Onslow Infant school we have:

- A large bank of Apple iPads for individual and small group use.
- 6 programmable floor robots, BeeBots®, to support early coding.
- 2 Blue Bots® to develop programming skills with wireless control from Year 1.
- A KS1 Robotic and STEM package to support our learners' understanding of robotics in Year 2.
- Digital microscopes.
- All pupils have personal logins to Purple Mash - a secure educational platform.
- Children in Year 1 have personal logins to Tapestry to upload their own learning in continuous provision.

The computing subject leader bids for resources on an annual basis in consultation with teaching staff and the ICT technician. The school acknowledges the need to continually maintain, update and develop resources in line with the needs of the curriculum.

Health and Safety

All staff are required to sign and abide by the Staff Acceptable Use Agreement. On admission to the school, parents are required to give permission for safe internet use.

Internet use is a part of the statutory curriculum and a necessary tool for staff and pupils. As an essential element for education, business and social interaction, the school has a duty to provide students with quality internet access as part of their learning experience.

- Children will be taught that the internet and digital technology has huge educational and social benefits when used safely.
- Through the computing and RSE curriculums, pupils will be taught about the potential dangers of internet use, including how to report unpleasant content,.
- Pupils of all ages will be educated in the safe, effective use of the internet to support their learning and mental health.
- Pupils will be taught how to publish work to a wider audience on secure educational platforms including Purple Mash and Tapestry. Both platforms are password protected.
- For pupils whose parents lack economic or cultural educational resources, the school should build digital skills and resilience, acknowledging the lack of experience and internet at home.
- For children with social, familial or psychological vulnerabilities, further consideration should be taken to reduce potential harm.
- The school will seek to ensure that the use of internet-derived materials by staff and by pupils complies with copyright law.
- Pupils will be taught to be critically aware of the materials they read and shown how to validate information before accepting its accuracy.
- Appropriate elements of the Online Safety Policy will be shared with pupils.
- Online safety rules will be posted in all networked classrooms.
- Pupils will be informed that internet use will be monitored.
- Curriculum opportunities to gain awareness of online safety issues and how best to deal with them will be provided for pupils.
- E-safety rules should be revisited each term as students become more mature and the nature of newer risks can be identified. Students will be reminded of the safety rules in each computing lesson if they will be accessing the internet.
- Pupils and adults should take regular breaks from screen use.

- Where headphones are used, they should be checked by staff for damage and the volume setting checked to protect ears.
- Computing equipment can be heavy so appropriate care must be taken when lifting or moving items, in line with school policies.
- Only adults should reattach the charging cable to iPads in the storage unit.

Role of the Subject Leader for Computing

The subject leader is responsible for the monitoring and development of computing and for ensuring quality and raising standards in the subjects by:

- Playing an active role in the development of the computing curriculums.
- Acting as a consultant to colleagues on resources, curriculum changes, classroom teaching and learning ideas.
- Monitoring and evaluating pupils' work, pupils' views on the subject, displays and teachers' planning.
- Ensuring breadth and progression of curriculum content by analysing plans and year group curriculum maps.
- Auditing, ordering and replacing resources.
- Producing a subject leader action plan, which is evaluated at the end of each term.