

Oak Meadow Primary School

Ryan Avenue, Ashmore Park, Wolverhampton, WV11 2QQ, 01902 558517, oakmeadowprimaryschool@wolverhampton.gov.uk



Policy: Computing

From tiny acorns mighty oaks grow.

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Policy Author: Paul Lane

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Curriculum Statement: Our Computing Vision at Oak Meadow Primary School

We aim to give the children at Oak Meadow Primary School the skills and capabilities to use technology confidently in all aspects of their learning life.

We do this in order to:

1. Improve pupils' achievements by using technology in new and exciting ways through a creative curriculum to inspire awe and wonder in our children.
2. To maximise the efficiency of the educational service we provide by using technology to help parents/carers to connect with learning in school and form a holistic learning community.
3. To safeguard pupils' interests and protect them by ensuring we are always mindful of the effects of developing new technologies within our school.

Intent

At Oak Meadow, we believe that the teaching and learning of Computing is essential to the development of all pupils in the world we live in today. Children are encouraged to develop a greater understanding and knowledge of technology, as well as their safe use of it. The computing curriculum at Oak Meadow enables children to develop knowledge and skills that are transferable to other curriculum areas and which can and are used to accelerate their learning across many different subjects. We seek to inspire in children a curiosity and fascination about technology in the world today and the future. The curriculum is designed to develop knowledge and skills that are progressive, as well as transferable, throughout the children's time at Oak Meadow and also to their further education and beyond.

Through teaching computing, we equip children with the skills to participate in a world of rapidly changing technology. We enable them to find, explore, analyse, exchange and present information. We also help them develop the necessary skills for using information in a safe and effective way. This is a major part of enabling children to be confident, creative and independent learners.

The key objectives of teaching computing are to enable children:

- To have a basic understanding on how computer systems work.
- To develop capability in finding, selecting and using information.
- To develop effective and appropriate communication.
- To develop capability in visual and audio presentation.
- To monitor and control events, both real and imaginary.
- To apply their computing skills and knowledge to their learning in other curriculum areas.
- To explore their attitudes towards computing and its value to them and society in general. For example, to learn about issues of security and personal safety, confidentiality and accuracy.

Implementation

Computing at Oak Meadow is taught in blocks throughout the year, so that children can achieve depth in their learning. Through their work in computing children always begin topics by discussing eSafety and how to remain positive in their online use. Topics taught across the school (see Appendix 1 for the Computing scheme of work overview) have been mapped out and planned in a progressive way over a 2 year cycle in order to deepen pupils' understanding of different areas of technology in a range of areas to ensure all children are fully digitally literate.



Children are also given multiple opportunities to demonstrate their knowledge and understanding in other subjects as we recognise that computing underpins learning across the curriculum. Teachers have identified the key knowledge and skills of each blocked topic and consideration has been given to ensure progression across topics throughout each year group across the school. At the beginning of each topic, children are able to convey what they know already as well as what they would like to find out. This informs the programme of study and also ensures that lessons are relevant and take account of children's different starting points. Consideration is given to how greater depth will be taught, learnt and demonstrated within each lesson, as well as how learners will be supported in line with the school's commitment to inclusion.

Impact

Outcomes of pupils' work are evidenced within year group folders on our CloudW site and the progress and attainment of all children is updated at the end of each taught unit on a computing assessment tracker and foundation subject assessment tracker for every cohort. We provide a broad and balanced computing curriculum that demonstrates children's acquisition of identified key knowledge. Children review their successes in achieving the set objectives at the end of every topic and are actively encouraged to identify their own target areas. Children also record what they have learned comparative to their starting points at the end of every topic. As children progress throughout the school, they develop a deep knowledge, understanding and appreciation of how technology works. Through their growing knowledge and understanding of computing, children gain an appreciation of modern life in different societies, helping to develop a sense of how technologies are used in other cultures, and how nations rely on each other in our 21st century world.

Skills Progression

Teachers have identified the key knowledge and skills for each blocked topic and consideration has been given to ensure progression across topics throughout each year group across the school (see Appendix 2 for KS1 and KS2 Computing Skills Progression).

Assessment

Assessment for learning is continuous throughout the planning, teaching and learning cycle. Key computing knowledge is taught to enable and promote the development of children's computing skills. Assessment is supported by use of the following strategies:

- Observing children at work, individually, in pairs, in a group and in class during whole class teaching.
- Using differentiated, open-ended questions that require children to explain their understanding.
- Providing effective feedback, including interactive marking, to engage children with their learning and to provide opportunities for self-assessment, consolidation, depth and target setting.
- Computing folder moderation and monitoring of outcomes of work, to evaluate the range and balance of work and to ensure that tasks meet the needs of different learners, with the acquisition of the pre-identified key knowledge of each topic being evidenced through the outcomes.
- Use of specific and measurable WALT Learning Objectives for each lesson are reviewed against the agreed success criteria.

At the end of each topic, the acquisition of skills are evidenced by the class teacher on a foundation subject tracker. Each child's attainment and progress in computing is formally reported to parents/carers in their end of year report. We measure the progress and attainment of the children through the following criterion:

Characteristics of e-confident learners we look for are:

- Encouraging learners to become independent users of technology, choosing when, where, and how they will learn.
- Enabling effective learning and teaching across all aspects of learning using new technologies.
- Ensuring that all learners have the necessary computing capability to be able to engage in e-learning in any aspect of their education.
- Extending learning beyond the school day, the school environment and school age.
- Embedding the use of technologies so that they become second nature.

There are four stages of e-learning that the children progress through at Oak Meadow:

Exploratory Learner Stage:

Where the learner has experiences that are initiated by the teacher and are set up for the learner to explore and interact with the strand of learning either as a member of a large group or individually.

Developing Collaborative Learner:

Where the learner is comfortable with carrying out learning tasks or experiences which are heavily "scaffolded" by a teacher or teaching assistant (TA) and the learner is only able to

carry out with support from the structure and the collaborative learner grouping (mainly class based activities).

Confident Collaborative Learner:

Where the learner is comfortable with carrying out learning tasks or experiences which are planned for by a teacher or teaching assistant and the learner is able to carry them out with the minimum amount of support from the structure and the collaborative learner grouping (mainly peer supported learning e.g. working with a study buddy.) The learner is making suggestions themselves around the ways of working and the avenues of study as they become more confident.

Independent Learner:

Here the learner is comfortable with selecting aspects of e-learning that need to be used to complete a set learning challenge or task. The learner is confident enough to suggest for themselves appropriate ways of working and can bring together various strands of e-learning capability. The teacher or teaching assistant acts as a mediator to the learning once the initial learning challenge or task has been set. An independent e-learner will only need input on ICT capabilities as they are needed in carrying out a set task. The learner will be able to suggest developments to a task and be confident to explore their own ideas.

Early Years

We teach computing in the Early Years as an integral part of pupils' work covered during the year. As reception classes are part of the Foundation Stage Curriculum, we relate the computing aspects of the children's work to the objectives set out in the Early Learning Goals (ELGs) which underpin the curriculum planning for children aged three to five. The children have the opportunity to use computers, iPads, a digital camera and a floor robot. Then, during the year, they gain confidence and start using the computer to find out information and to communicate in a variety of ways. This involves guiding the children to develop sense of their physical world, as well as their community, through opportunities to explore, observe and find out about people, places, technology and the environment. They are assessed according to the Development Matters Attainment targets.

Cross – Curricular Links

Computing is a subject that touches on many other areas taught in schools, especially Mathematics and Literacy. For example, a link may be made to compliment both computing and maths lessons to teach times tables. Cross-curricular outcomes are also identified prior to teaching. The school has an extensive selection of laptops and iPads with every classroom equipped with 10 of each as well as additional laptop trollies. These are used throughout the working day in all lessons.

SMSC Development

Computing makes a significant contribution to the teaching of PSHE and citizenship because children in computing classes learn to work together in a collaborative manner. They also develop a sense of global citizenship by using the internet and e-mail. The school has developed a set of safe and discriminating behaviours for pupils to adopt when using the internet and other technologies. Through discussion of e-safety and other issues related to electronic communication, the children develop their own view about the use and misuse of electronic equipment and they also gain an insight into the interdependence of computer users around the world.

Diversity

Through computing, children learn about the diversity of national, regional, religious and ethnic identities in the 21st century; teachers encourage pupils to think about topical issues, problems and events and to use their computing learning to consider other people's experiences.

Planning and Resources

Our school has the appropriate computer-to-pupil ratio and internet access. Each class has 10 iPads that have access to the internet and the school server. There are two sets of laptop computers for use in the classrooms and wireless connectivity throughout the school.

The school uses the CloudW Learning Platform provided by the Local Authority. This provides folders and storage for all planning and evidence of pupils' work. This also provides email communication, calendar facility and personal learning space for the staff which allows them to access learning materials outside of school.

We have a service level agreement (SLA) in operation with Concero who provide a technician one day a week to the school in order for us to keep our equipment in good working order. Members of staff report faults directly to the Concero support desk. Faults can be dealt with during the weekly visit by the technician or remotely. The technician also sets up new equipment, and installs software and peripherals.

All the teaching staff are provided with a laptop computer that they connect to the interactive whiteboard in their classroom. They use the computer at home to prepare teaching activities. They also have an iPad to help them prepare activities for the children and to use to demonstrate activities in the classroom. Teaching assistants have also been issued with a laptop to enable them to use the screens in the breakout rooms or interactive whiteboards when needed.

In order to keep our school computers virus-free, every device has appropriate anti-virus software installed and no software from home will be installed on school computers. The school runs Windows 10 on all devices to ensure all hardware is encrypted at Oak Meadow. Pupils bringing in work on portable storage disks must first have it scanned but it is easier if the work is e-mailed to the teacher concerned. Where teachers are transferring files between their home and school, they must have up-to-date virus protection software on their home computers.

Subject Essentials

Each term, children will have completed all objectives linked to their computing topic. Work will be differentiated to ensure support and challenge for all pupils. All lessons will be evidenced in year group folders. All work will be assessed and progress and attainment will be recorded on year group's computing tracker/foundation subject tracker. The work produced in computing will be to a high standard to reflect the expectations of the school.

Role of the Subject Leader

The subject leader's responsibilities are:

- To ensure a high profile of the subject.
- To ensure a full range of relevant and effective resources are available to enhance and support learning.
- To model the teaching of computing.
- To ensure progression of the key knowledge and skills identified within each unit and to ensure that these are integral to the programme of study and secure at the end of each age phase.

- To monitor electronic folders and ensure that key knowledge is evidenced in outcomes.
- To monitor planning and oversee the teaching of computing.
- To lead further improvement in and development of the subject as informed by effective subject overview.
- To ensure that the computing curriculum has a positive effect on all pupils, including those who are disadvantaged or have low attainment.
- To ensure that approaches are informed by and in line with current identified good practice and pedagogy.

Equal Opportunities

At Oak Meadow, we are committed to providing a teaching environment which ensures all children are provided with the same learning opportunities regardless of social class, gender, culture, race, special educational need or disability. Teachers use a range of strategies to ensure inclusion. Support for specific individuals is well considered and planned for, with consideration given to how greater depth and further challenge can be implemented.

Inclusion

All pupils are entitled to access the computing curriculum at a level appropriate to their needs. Independent tasks, as well as teaching, are also well adapted to ensure full accessibility, as well as to provide appropriate support and challenge to different groups of learners. The school makes full use of additional adults who are deployed effectively to ensure that identified children are able to make progress in each curriculum area, according to their full potential. Teaching takes account of children's own interests to ensure topic relevance to all individual learners. Opportunities for enrichment are also fully utilised, to ensure a fully inclusive and engaging computing curriculum.

Role of the Governors

Governors are responsible for ensuring the effective delivery of the National Curriculum in Computing. The subject leader will ensure that the governing body is kept up to date with any actions and initiatives which are relevant to the subject. Regular reviews of action plans are sent to the governors each year and the governors meet with the subject leader in order to provide link governor reports to the governing body annually.

Health and Safety

The curriculum will be delivered in a safe and healthy manner and every effort will be taken to identify risks associated with a curriculum subject/activity and the appropriate control measures will be implemented. Children will be educated about health and safety issues as and when the opportunity arises throughout the course of normal teaching. All equipment in school is tested every twelve months to ensure it meets BSE standards and is fit for purpose and safe to use.