



Ashton West End Primary Academy

Computing Policy

Vision:

In our multicultural and eco- friendly school, we celebrate differences and encourage mutual respect. We support each other and our community to work together and take pride in the things we do. We demonstrate perseverance, inclusion and respect. Everyone is welcome!

Mission Statement:

‘Today I am proud of my school,
tomorrow my school will be proud of me.’

The aim of this policy is to guide teachers and support staff in providing the best possible learning experiences for our children. At Ashton West End Primary Academy we undertake to:

- Raise levels of attainment for all pupils, enabling them to achieve their personal best.
- Develop confident, disciplined and enquiring learners, able to make informed choices.
- Foster a love of learning.
- Foster self-esteem and personal responsibility, linked to respect for the needs and feelings of others.
- Facilitate considerate and positive relationships between all members of the academy community.
- Ensure equal opportunities in relation to gender, race, class, special needs and belief.
- Value and respect all cultures.
- Provide a safe and happy work place.
- Promote a thoughtful attitude towards the immediate and wider environment.

Our mission sets out our commitment to ‘aiming high’. Improvements in the quality of teaching and learning are brought about through a process, which involves:

- reflection by individual professionals
- acting on planning feedback and guidance
- use of assessment data
- the target setting process
- sharing in-house expertise through
 - joint/team planning
 - discussion with colleagues, subject coordinators and SLT
 - Staff training at school
 - Team teaching lessons
 - Peer observation and lesson studies
- implementation of recommendations arising from classroom observation
- CPD courses

This policy will be reviewed regularly to enable us to take account of new initiatives, curriculum changes, technological developments and any changes to our pupil cohort profile.

(Next view date: July 2021)

Aims and Objectives:

The National curriculum aims for Computing are:

- Pupils can understand and apply the fundamental principles of computer science, including logic, algorithms, data representation, and communication
- Pupils can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems
- Pupils can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems.
- Pupils are responsible, competent, confident and creative users of information and communication technology.

Teaching and Learning:

The Computing in the National Curriculum (2013) expectations split the teaching and learning of Computing into three strands (Computer Science, Digital Literacy and Information Technology). It is therefore important that children recognise the difference between what makes each one relevant to their future, as well as their everyday lives. High quality teaching of Computing, from Reception through to Year 6, utilises a combination of practical lessons and theory lessons designed to promote discussion and nurture understanding, which are also relevant to other areas of the curriculum.

Across Key Stage 1 and Key Stage 2, our children will use technology to:

- Learn Programming by using programmable toys, program on screen, through animation, develop games (simple and interactive) and to develop simple mobile apps.
- Develop their computational thinking through filming, exploring how computer games work, finding and correcting bugs in programs, creating interactive toys, cracking codes and developing project management skills.
- Develop computing creativity by illustrating an eBook, taking and editing digital images, shooting and editing videos, producing digital music, creating geometrical art and creating video and web copy for mobile phone apps.
- Investigate computer networks through finding images using the Web, researching a topic, finding out how the school network operates, editing and writing code, creating an e-safety micro-site, and planning the creation of mobile apps.
- Communicate and collaborate by producing a talking book, PowerPoint presentations, create and write radio broadcasts and design interfaces for information projects.
- Understand the need for productivity as a life skill through creating presentations electronically, record data, create surveys and analyse results, record and analyse statistical data, create virtual spaces and research the app market.

Curriculum Planning:

We recognise that Computing is a core subject in the National Curriculum. The school uses the National Curriculum scheme of work for Computing as the basis for its curriculum planning. Our long-term school overview shows the coverage of the Computing units for each year group. Using the national curriculum, subject leaders have created schemes of work to ensure coverage and to support teachers when creating medium term plans. The objectives for all units are derived from the Wokingham schemes of learning and they have then been adapted to meet the needs of our school.

Each year group is taught six different units throughout the year that have been scheduled to promote cross-curricular learning. These are:

- E-Safety
- Multimedia
- Music and Sound
- Digital imagery
- Data Handling
- Coding

Each unit revisits and consolidates the learning from the previous year and then teaches new skills using a range of different applications and programs that develop and progress computing skills.

EYFS:

This policy acknowledges the requirements for promoting the learning and development of children set out in the [Early Years Foundation Stage \(EYFS\) statutory framework](#).

We teach computing in nursery and reception as an integral part of the topic work covered during the year. As part of the Foundation Stage of the National 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 the computers, interactive whiteboard, a digital camera and a floor robot. Then, during the year in reception, they gain confidence and start using the computer to find out information and to communicate in a variety of ways.

Contribution to the other curriculum areas:

The teaching of computing contributes to teaching and learning in all curriculum areas. It also offers ways of impacting on learning which are not possible with conventional methods. Teachers use software to present information visually, dynamically and interactively, so that children understand concepts more quickly. For example, graphics work links in closely with work in art, and work using databases supports work in mathematics, while role-play simulations and the Internet prove very useful for research in humanities subjects. Computing enables children to present their information and conclusions in the most appropriate way. Much of the software we use is generic and can therefore be used in several curriculum areas.

English

Computing is a major contributor to the teaching of English. Children's reading development is supported through talking stories. As the children develop mouse and keyboard skills, they learn how to edit and revise text on a computer. They also learn how to improve the presentation of their work by using desktop publishing software and iPad applications. There is in addition a variety of software which targets specific reading, phonics knowledge, grammar and spelling skills.

Mathematics

Children use computing in mathematics to collect data, make predictions, analyse results, and present information graphically. There is a range of software available for children to develop their mental skills, answer questions and practise learned strategies. In addition to this, there are many applications on the iPads for the children to practise, develop and progress a range of mathematical skills such as TTRockstars for times tables.

Science

Software is used to animate and model scientific concepts, and to allow children to investigate processes which it would be impracticable to do directly in the classroom. Data loggers are used to assist in the collection of data and in producing tables and graphs.

PSHE and Citizenship

Computing makes a contribution to the teaching of PSHE and citizenship in that children in computing classes learn to work together in a collaborative manner. They also develop a sense of global citizenship by using the Internet. Learning to use the internet efficiently and safely is therefore a key component of computing teaching. The long term planning aims to develop a set of safe and discriminating behaviours for pupils to adopt when using the Internet and other technologies. Through discussion of safety and other issues related to electronic communication, the children develop their own view about the use and misuse of computing, and they also gain an insight into the interdependence of computing users around the world.

Inclusion:

At Ashton West End Primary Academy teachers set high expectations for all pupils. Teachers use appropriate assessment to set ambitious targets and plan challenging work for all groups, including:

- More able pupils
- Pupils with low prior attainment
- Pupils from disadvantaged backgrounds
- Pupils with SEN
- Pupils with English as an additional language (EAL)

Teachers plan lessons so that pupils with SEN and/or disabilities can study every National Curriculum subject, wherever possible, and ensure that there are no barriers to every pupil achieving. At Ashton West End Primary Academy, all children are involved in Computing lessons, whatever their ability, experiences and individual needs. This is in line with the school's curriculum policy of providing a broad and balanced education to all children. Through a range of teaching and learning approaches, we enable all children to access the Computing curriculum. We strive to meet the needs of those pupils with special educational needs, those with disabilities, those with special gifts and talents, and those learning English as an additional language, and we take all reasonable steps to achieve this. For further details see the SEND policy. Where learning takes place outside of the classroom, we will carry out risk assessments to ensure that the activities are safe and appropriate for all pupils.

Legislation and guidance:

This policy reflects the requirements for academies to provide a broad and balanced curriculum as per the [Academies Act 2010](#), and the [National Curriculum programmes of study](#) which we have chosen to follow.

It also reflects requirements for inclusion and equality as set out in the [Special Educational Needs and Disability Code of Practice 2014](#) and [Equality Act 2010](#), and refers to curriculum-related expectations of governing boards set out in the Department for Education's [Governance Handbook](#).

Assessment for learning:

Teachers will assess children's work in computing by making informal judgments during lessons. On completion of a piece of work, the teacher assesses the work, and uses this assessment to plan for future learning. Verbal feedback is given to the child to help guide his/her progress. Older children are encouraged to make judgments about how they can improve their own work. The subject leader monitors samples of the children's work. This demonstrates the expected level of achievement in computing for each age group in the school. All teachers use a list of descriptors showing expected skill and knowledge at each level to help assess and plan for further development throughout the school. In addition to this, each unit in Computing has matching assessment objectives on Target Tracker that will be updated every half term by the class teacher using the long-term planning overviews.

Resources:

The school has a fully functional computing area located in the Key Stage One hall and three movable storage cupboards containing class sets of laptops, chrome books and iPad linked to a network server with Colour Printer. In addition, every class has at least one desktop computer networked to the server and connected to the Interactive whiteboard. Most classes also have at least one other desktop computer. A timetable for usage of the equipment across the whole school is in place. All computers have access to the Internet. Use of the devices is timetabled to ensure every child has access and that the scheme of work for computing is delivered. Teachers are actively encouraged to make use of the devices at other times during the day so that they can apply computing skills to other areas of the curriculum. Staff have undergone and will continue to receive thorough training in the use of new hardware and software. Green screen and programmable toys are available to support and enhance both the computing and the learning challenge curriculum.

Roles and responsibilities:

The governing board: The governing board will monitor the effectiveness of this policy and hold the headteacher to account for its implementation.

The governing board will also ensure that:

- A robust framework is in place for setting curriculum priorities and aspirational targets
- The school is complying with its funding agreement and teaching a "broad and balanced curriculum" which includes English, maths, and science, and enough teaching time is provided for pupils to cover the requirements of the funding agreement
- Proper provision is made for pupils with different abilities and needs, including children with special educational needs (SEN)
- The school implements the relevant statutory assessment arrangements
- It participates actively in decision-making about the breadth and balance of the curriculum

The Principal: The principal is responsible for ensuring that this policy is adhered to, and that:

- All required elements of the curriculum, and those subjects which the school chooses to offer, have aims and objectives which reflect the aims of the school and indicate how the needs of individual pupils will be met
- The amount of time provided for teaching the required elements of the curriculum is adequate and is reviewed by the governing board
- They manage requests to withdraw children from curriculum subjects, where appropriate
- The school's procedures for assessment meet all legal requirements

- The governing board is fully involved in decision-making processes that relate to the breadth and balance of the curriculum
- The governing board is advised on whole-school targets in order to make informed decisions
- Proper provision is in place for pupils with different abilities and needs, including children with SEN

The subject leader:

There is a computing subject leader who is responsible for the implementation of computing policy across the school. Their role is to:

- Offer help and support to all members of staff (including teaching assistants) in their teaching, planning and assessment of computing.
- Provide colleagues opportunities to observe good practice in the teaching of computing.
- Maintain resources and advise staff on the use of digital tools, technologies and resources.
- Monitor classroom teaching or planning following the schools monitoring programme.
- Monitor the children's progression in computing, looking at examples of work of different abilities.
- Manage the computing budget.
- Keep up-to-date with new technological developments and communicate information and developments with colleagues
- Lead staff training on new initiatives.
- Attend appropriate in-service training

Monitoring and review:

Monitoring termly enables the subject leader to gain an overview of Computing and ICT teaching and learning throughout the school. This will assist the school in the self-evaluation process identifying areas of strength as well as those for development. In monitoring the quality of Computing and ICT teaching and learning, the subject leader will:

- Observe teaching and learning in the classroom.
- Hold discussions with teachers and children.
- Analyse children's work
- Examine plans to ensure full coverage of the Computing and cross-curricular ICT requirements
- Monitor the use of Target Tracker assessment

