

ALDERMAN RICHARD HALLAM PRIMARY SCHOOL

ARH – Educating a community of life-long learners

Computing Policy

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Introduction

Our school vision: Pupils will leave A.R.H. as happy, healthy and inspired young people who can confidently participate in the world as resilient, articulate citizens who have a life-long love of learning, creativity and discovery.

Our curriculum: Our curriculum is the vehicle to empower pupils with knowledge and skills. We strive to immerse young people in their topics which are designed to engage, provide real life links and progress all pupils' understanding.

'A.R.H. - Educating a community of life-long learners'

Aims

As Computing is now an integral part of growing up, work and living in a modern world, the aim of this policy is to ensure a consistent high standard of teaching for Computing. This will be achieved through a robust Computing curriculum as children at A.R.H. will be taught to conduct themselves online as digital citizens and will be able to recognise and report dangers that they may come across. They will be able to create informative products using digital devices and apps to showcase their learning in a creative curriculum. Finally, children will be able to explain the fundamental principles of computer science including how algorithms can be created and used on computers, tablets and with physical devices.

Teaching of Computing

Each child at A.R.H. will receive quality first teaching for 40 minutes a week in KS1 and KS2. Efforts will be made to make cross curricular links where possible. For some half terms, Computing may be blocked into a day or every afternoon for a week based on device needs / timetabling. All aspects of the Computing curriculum will be taught: Computer Science, Online Safety and Information, Communications Technology. There are two themed weeks for Computing each year: Hour of Code week and Safer Internet Week. These weeks will cover objectives for Online Safety and Computer Science through different focused lessons and assemblies. Children will be supported through adaptive teaching strategies, especially those linked to peer and partner work as well as teamwork to allow for opportunities to debug and tinker with elements of the Computing curriculum.

Foundation Stage

Children within the Foundation Stage will engage with technology through their access to Continuous Provision. Children will develop experience of pressing buttons and using touchscreens through lessons with cameras, microphones and tablets. Children will also learn basic online safety from books such as Hector's World and Smartie the Penguin.

Key Stage 1

Computing policy

Lessons taught in Key Stage 1 are guided by the National Curriculum and are taught thematically where possible. Children in KS1 will learn about the three areas of Computing: digital literacy, computer science and information, communications technology. Each area will be taught in different half terms and will cover all National Curriculum objectives through the use of a progression document and assessment document that have broken down the objectives into smaller, more targeted steps. Children will use tablets, iPads and physical computer systems such as Beebots to learn Computing. In some lessons, children will learn Computing through the 'Barefoot' method where children will be taught Computing concepts without the use of technology. Information and communication technology will be a priority in these years as children develop their knowledge about how to use technology.

Key Stage 2

Lessons taught in Key Stage 2 will follow a similar model to Key Stage 1, with lessons linked to topics where possible. Children will learn the three areas of Computing in different half terms but online safety will be mentioned throughout as well as within half terms where it is the focus. Again, this teaching will be guided by the broken down objectives in the Progression Document and assessment document. In Lower Key Stage 2, the priority will be computer science as children learn to program their own algorithms. In Upper Key Stage 2, the focus shifts to online safety in preparation for children exploring the world wide web more independently at home, at school and beyond to secondary school. Children will learn Computing through the use of tablets, iPads, and physical computing systems. 'Barefoot' computing will continue to be taught in some lessons such as networking and online safety where the concept is more important than using the technology.

What is the progression? How is this monitored?

The progression of Computing at A.R.H. is documented in the Progression Document and is assessed by the End of Year Expected Standard assessment documents. The objectives in both documents are objectives from the National Curriculum that have been broken down into smaller, more manageable steps.

How do you ensure thorough links to the National Curriculum?

All of the objectives and lessons are based on National Curriculum objectives. These objectives are covered multiple times in a year and are covered again in different year groups. We will follow further guidance from the DfE including KCSIE and the Online Safety Act.

Responsibilities and Roles

The Headteacher and Governing Body have overall responsibility for Computing, supported by the Computing Lead. The Computing Lead is responsible for overseeing the delivery of the Computing Curriculum through:

- Liaising with year group leaders.
- Liaising with creative curriculum team.
- Providing regular Inset and staff training as appropriate.
- Monitoring planning to ensure curriculum coverage by checking flipcharts and routeways with SLT.
- Carrying out Seesaw scrutinies alongside planning to ensure cross-curricular links are optimised.
- Observing learning and teaching to ensure progress is being made within topics.
- Regular reviews of the curriculum through staff and pupil questionnaires and open dialogue.
- Speaking with the pupils about their learning.
- Updating and checking progression and assessment documents for Computing.

All teaching staff are responsible for:

- Planning and delivering the curriculum on a day-to-day basis and for making cross-curricular links where appropriate. Computing planning must be shown within the routeways for each half term. Flipcharts can then support the planning where needed but evidence must be shown on Seesaw or wherever has been specified by the progression document.
- Making amendments to planning in order to optimise learning opportunities when they arise.
- Ensuring there is appropriate challenge and adaptive teaching strategies so all pupils make good progress and can access learning opportunities.
- Ensuring the curriculum is taught in an engaging manner which is in-line with the school ethos.

Planning

We ensure that all objectives in the National Curriculum are covered through Computing. Our planning process for Computing is:

- Long term plans for the year (coverage document and progression document); these include the topics the children should be taught as well as the main activities linked to each theme.
- Medium term plans (routeways) for each topic hold the relevant learning and National Curriculum objectives. These highlight the activities to be covered and are assessed at the end of each topic. Teachers use the broken down National Curriculum objectives and activities in the Progression Document to plan units of work. This is planned on our Routeway format. Using the Routeway, teachers then consider what will be the best learning sequence for their pupils. This has to incorporate: a formative assessment of children's' understanding using questions taken from the Progression Document, how the topic will be introduced (a 'wow' factor, that could be a visit, a trip, a focus day, an activity on Wonder Day or an external visitor), what the learning outcome will be this could be a computer programme, presentation, or piece of work and how the work of pupils is to be recorded on Seesaw. Once year groups have decided upon the learning sequence, parents are informed of the upcoming topic through a Parent and Carer Letter. This allows parents and carers to support their children and become involved in their learning.
- Year Groups meet weekly to plan the subsequent weeks work from the medium term plan or Routeway. Each weekly plan is clearly adapted to ensure all pupils can access the learning with a clear learning outcome. Lessons are engaging and taught using high quality resources. On each weekly plan the links to the broken down National Curriculum are clearly labelled. As per other subjects, this will be shown on flipcharts. If flipcharts are not appropriate for the lesson, the Routeway will include more detail to explain what will happen and what will be learnt in each lesson.
- Plans are monitored by SLT and the Computing Lead.
- At the end of each topic pupils' understanding are taken through a Topic Quiz and this is then used to alter the planning for the following year.

Inclusion

It is expected that all children will be given the opportunity to learn in a creative and encouraging learning environment which encompasses a range of learning and teaching styles. All children are entitled to this as part of the school ethos. It is hoped that this approach will motivate and support children's learning at all levels including the Able and Talented, EAL and children identified with a Special Educational Need (SEND).

Assessment

Computing policy

Each foundation subject has objectives set out by the National Curriculum. These are primarily assessed throughout the topics using the Learning Objectives for each lesson. Assessments take place throughout lessons. Teachers assess during the course of a Computing lesson using discussion, question and answer techniques and in encouraging pupils to communicate findings to others.

The teachers will record achievement of pupils using our End of Year Expectation sheet. This identifies the end of year expectations for each subject and which pupils achieve, are above or below these expectations will be identified. This will provide formative assessment and inform future planning needs. The Computing lead will collect yearly attainment data. This will allow the lead to see progress and attainment in Computing across the school. This information will be used to assist teachers to inform future planning.

Monitoring and Review

Monitoring and review takes place on a regular basis in accordance with the School Improvement Plan and in accordance with the Performance Management Policy. Each term, Computing routeways and planning will be checked for quality assurance. Computing learning walks also take place twice a year to identify good practice and to identify any areas of need. Children's work on Seesaw is audited termly. This data is put onto a chart and colour coded according to quality and number of objectives covered.

After the monitoring activities have taken place, the Computing Lead reviews the provision; good practice is shared across the school and appropriate support or training is put into place to support any needs identified. These needs are subject to further monitoring and evaluating activities.

School Closure

In the event of a school closure, Teachers will continue to provide planning and engaging learning for pupils using Seesaw. Through Seesaw, Teachers will convert their lesson flipcharts to make them accessible from home as well as setting work to be completed. Pupils will then follow the lesson and complete the required work and submit this for feedback using their Seesaw account. Pupils who do not have access to the Internet at home will be provided with high-quality workbooks to continue their study of the National Curriculum. Due to using Seesaw, many Computing objectives will be achieved by using the technology and creating different projects. Online safety and Computer Science objectives will be covered during topic work sent home via Seesaw.

Upon school reopening following a long-term school closure, year groups will provide a Recovery Curriculum which is tailored to the needs of the pupils in their classes. This will firstly focus on the social, emotional and behavioural needs of the class followed by an assessment of the pupils' academic needs. This will then inform planning so that all pupils can catch up any lost learning. During the recovery curriculum, tablets and Seesaw will provide access to the Information and Communications technology objectives through doing work on them. Online Safety and Computer Science will be covered in more depth during Hour of Code and Safer Internet Day weeks.