



Computing Guidance

Reviewed – September 2024

Rationale

Computing is changing the lives of everyone. Through teaching Computing, we equip children to participate in a rapidly-changing world where work and leisure activities are increasingly transformed by technology. Computing skills are a major factor in enabling children to be confident, creative and independent learners. The use of Computing is an integral part of the National Curriculum and is a key skill for everyday life. Computers, iPads, programmable robots, digital and video cameras are but a few of the tools that can be used to acquire, organise, store, manipulate, interpret, communicate and present information. We enable our pupils to find, explore, analyse, exchange and present information. We also focus on developing the skills necessary for our pupils to be able to use information in a discriminating and effective way.

Aims and Objectives

- Provide a relevant, challenging and enjoyable Computing curriculum for all pupils.
- Meet the requirements of the National Curriculum programmes of study for Computing.
- Use Computing as a tool to enhance learning throughout the curriculum.
- To embrace and respond to new developments in technology.
- To equip pupils with the confidence and capability to use Computing throughout their later life.
- To enhance learning in other areas of the curriculum using computational skills.
- To develop an understanding of how to use Computing safely and responsibly.
- To help pupils develop and consolidate their knowledge, skills and understanding in Computing.
- To enhance children's learning of the evolving world of technology include AI.

Computing relates to how computers and computer systems work, and how they are designed and programmed. Pupils studying computing will gain an understanding of computational systems of all kinds, whether they include computers. Computational thinking provides insights into many areas of the curriculum, and influences work at the cutting edge of a wide range of disciplines.

The Acceptable Use Policies (KS1 and KS2) should also be read in conjunction with this guidance.

The Nature of Computing

The National Curriculum presents the subject as one through which pupils can understand the world. There is a focus on computational thinking and creativity, as well as opportunities for creative work in programming and digital media.

The introduction makes clear the three aspects of the computing curriculum: Computer Science (CS), Information Technology (IT) and Digital Literacy (DL).

The core of computing is **Computer Science**, in which pupils are taught the principles of information and computation, how digital systems work and how to put this knowledge to use through programming. Building on this knowledge and understanding, pupils are equipped to use **Information Technology** to create programs, systems and a range of content. Computing also ensures that pupils become digitally literate.

Teaching and Learning

The teaching of computing will begin as soon as a child enters school, and their skills will be developed from simple unplugged activities and use of simple programs to programming a task to achieve a simple goal. At times, children may focus on one skill at a time, which will then relate to a specific purpose.

The role of the teacher should include:

- ensuring that all elements of the scheme of work are taught; this includes the Online Safety Units
- reporting any problems encountered to the co-ordinator and the technicians in a timely fashion
- ensuring that equipment is used in accordance with guidance and put away after use
- keeping up to date with subject knowledge and asking for help if needed.

The role of the coordinator should include:

- monitoring delivery of the scheme of work to ensure breadth, balance and progression
- carrying out appropriate personal development and training
- carrying out audits to help identify and respond to teacher's training needs appropriately
- sharing skills and information where possible and ensure on-going professional development
- liaising with the technician to solve technical problems and to be advised on future improvements.

Planning

Computing in EYFS is planned to be taught continuous provision and through explorative play. Opportunities are given for pupils to reference key computational thinking skills and the use of simple age appropriate programmable toys. Units are planned to introduce children to laptops and iPads to develop their skills before entering Year 1.

From Year 1 to Year 6, the Kapow Scheme of learning is used to provide planning to the year groups. Each year group teaches three units, one in the autumn, one in the spring, and one in the summer. The Online Safety Unit is taught throughout the year in stand alone lessons.

In the planning of computing in KSI (Year 1 and 2), Computing is taught mainly in the ICE Zone. It is taught in the ICE Zone as a stand-alone activity, covering Computing Objectives. Computing is also taught whole class by the class teacher to ensure that new skills or programs are not missed by any child, this then progresses into deeper learning in the ICE Zone. Learning Objectives are created for the duration of the topic or for the Skill that is being taught.

In Key Stage Two (Year 3, 4, 5 & 6) planning is taught in separate lessons once a week. They plan to teach a block of study once a term. There are elements of cross-curricular learning through all areas of our curriculum.

For SEND children plans are put into place that include the use of various technology to support learning and progress. These include the use of specialised software, and iPads.

Monitoring and Evaluating

This will include:

- Observations of Computing lessons
- Planning scrutinies
- Pupil conferencing (Pupil Book Study)
- Analysis of data (including the focus on specific groups)
- Staff meetings to ensure consistency of approach, standards and expectations

Relevant staff CPD and training are put into place as a result of any monitoring.

Cross curricular Links

Opportunities for cross curricular computing take place and are provided with the opportunity to use computing skills in a range of foundation and core subjects (including Science, History and Geography).

Pupil Assessment

Assessment of pupil progress is on-going by the class teacher and is part of formative assessment. These judgements are moderated with a partner or teams at staff meetings.

Kapow end of unit assessments are used by class teachers to make detailed assessments of children's knowledge and skills

Assessments are updated on insight at given assessment points at the end of each term.

Equal Opportunities

We aim to ensure that all pupils have equal access to the teaching of computing at a level appropriate to their age and needs.

Online Safety

Online Safety is a vital part of our computing and PSHE curriculum, with the ever-changing world and the importance of keeping children safe online, at The Round House we have taken a whole-school approach to online safety.

The main content that is taught follows the DfE Keeping Children Safe in Education guidance suggests that: The breadth of issues classified within online safety is considerable and ever evolving, but can be categorised into four areas of risk:

- content: being exposed to illegal, inappropriate, or harmful content, for example: pornography, fake news, racism, misogyny, self-harm, suicide, anti-Semitism, radicalisation, and extremism
- contact: being subjected to harmful online interaction with other users; for example: peer to peer pressure, commercial advertising and adults posing as children or young adults with the intention to groom or exploit them for sexual, criminal, financial or other purposes.
- conduct: online behaviour that increases the likelihood of, or causes, harm; for example, making, sending and receiving explicit images (e.g. consensual and nonconsensual sharing of nudes and semi-nudes and/or pornography, sharing other explicit images and online bullying, and
- commerce: risks such as online gambling, inappropriate advertising, phishing and or financial scams.

At The Round House, Online Safety is taught throughout the year, normally at the beginning or the end of a computing unit. Each year group has 4-6 lessons following the Kapow Scheme of learning. Additional learning is taught through assemblies, PSHE lessons and through our digital leaders.

Roles and responsibilities

This guidance was reviewed by The Round House Primary Academy on September 2024.

Its implementation is seen as the responsibility of the staff and will be supported and monitored by the Computing Leads on behalf of the Headteacher and Governors.

Agreed by Trust:

To be reviewed: September 2028.