UPLANDS JUNIOR SCHOOL

Computing Policy
March 2025

Intent

At Uplands, we believe that computing should be embedded across the curriculum enabling children to develop their skills in many forms and in different subjects. Computing is a vital tool for learning and should be creative and productive enabling all learners to excel and succeed. We believe that our engaging and motivating computing curriculum will allow our learners to become digitally literate for lifelong learning in our modern world.

Our programme of study reflects the aims and objectives from the National Curriculum 2014. Our aim is to provide a high-quality computing education which equips children to use computational thinking and creativity to understand and change the world. In order to do this, we instil positive online learning behaviours and equip children with the knowledge and skills to become independent learners in a safe, considerate and respectful manner. All children will be equipped with the knowledge and progressive skills so that they can access the computing curriculum planned. The key areas on which we focus upon are programming, multimedia, online safety, handling data and technology in our lives.

Aims & Objectives

The aims of Computing are to enable children:

- to develop computing capability in finding, selecting and using information;
- to use Computing for effective and appropriate communication;
- to monitor and control events both real and imaginary;
- to apply hardware and software to creative and appropriate uses of information;
- to apply their computing skills and knowledge to their learning in other areas;
- to use their computing skills to develop their language and communication skills;
- to explore their attitudes towards computing and its value to them and society in general. For example, to learn about issues of security, confidentiality and accuracy.

Implementation

As the aims of Computing are to equip children with the skills necessary to use technology to become independent learners, the teaching style that we adopt is as active and practical as possible. While at times we do give children direct instruction on how to use hardware or software, the main emphasis of our teaching in Computing is for individuals or groups of children to use computers to help them in whatever they are trying to study.

We recognise that all classes have children with widely differing Computing abilities. This is especially true when some children have access to computing equipment at home, whilst others do not. We provide suitable learning opportunities for all children by matching the challenge of the task to the ability and experience of the child. We achieve this in a variety of ways, by:

- 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, communicating clues, use email, produce wikis, create and write blog pages and design interfaces for apps.
- Understand the need for productivity as a life skill through creating a card electronically, record bug hunt data, create surveys and analyse results, record and analyse weather data, create virtual spaces and research the app market.
- setting common tasks which are open-ended and can have a variety of responses;
- providing resources of different complexity that are matched to the ability of the child;

Computing curriculum planning

The school uses the national scheme of work for Computing as the basis for its curriculum planning alongside the planning/resources from Squirrel Learning Hub.

Individual pupil laptops and iPads in classrooms support the development of Computing and ICT capability by enabling independent learning; encouraging research, and allowing for the creative use of ICT in all subjects. Digital projectors, interactive whiteboards are positioned in all classrooms and are used as a teaching and learning resource across the curriculum. An immersive classroom further enhances the children's learning, emotive and language experiences and responses through cross-curricular exploration of ideas and themes.

We carry out the curriculum planning in Computing in two phases (long-term overview and medium-term). The long-term plan maps the Computing topics that the children study in each term and shows how teaching units are distributed across the year groups, and how these fit together to ensure progression within the curriculum plan. Our medium-term plans give details of each unit of work for each term. They identify the key skills and learning objectives for each unit of work. The topics studied in Computing are planned to build upon prior learning. While we offer opportunities for children of all abilities to develop their skills and knowledge in each unit, we also build planned progression into the scheme of work, so that the children are increasingly challenged as they move up through the school.

Contribution of Computing to other curriculum areas

Computing contributes to teaching and learning in all curriculum areas. For example, graphics work links in closely with work in art, and work using databases supports work in mathematics, and the Internet proves very useful for research in creative curriculum subjects. Computing enables children to present their information and conclusions in the most appropriate way.

British Values

Children demonstrate the following values whilst learning about Computing by:

Democracy

- Listening to everyone's ideas in order to form a majority.
- Working as part of a team and collaborating to use computing devices effectively.

Rule of Law

- Developing knowledge of lawful computing behaviours.
- Demonstrating respect for computing laws.

Individual Liberty

- Taking responsibility for our own computing behaviours.
- Challenging stereotypes and bias.
- Exercising rights and personal freedoms safely through knowledge of E-safety.

Respect and Tolerance

- Showing respect for other cultures when undertaking research using computing

Monitoring and Review

The monitoring of the standards of the children's work and of the quality of teaching in Computing is the responsibility of the Computing subject leaders and senior staff of the school. The Computing subject leaders are also responsible for supporting colleagues in the teaching of Computing, for keeping informed about current developments in the subject and for providing a strategic lead and direction for the subject in the school. 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

Security, Legislation, Copyright and Data Protection

We ensure that the school community is kept safe by ensuring that:

- The school Computing technician is responsible for regularly updating anti-virus software.

- All children are aware of the school rules for responsible use on login to the school network and will understand the consequence of any misuse.

- Reminders for safe and responsible use of computing and the Internet will be displayed in all areas. Software/apps installed onto the school network server must have been vetted by the Computer Coordinators/SLT for suitable educational content before being purchased and installed. No personal software is to be loaded onto the system.

- All staff will ensure all data is stored in appropriate files/areas on server so that is accessible only by those who have access rights.
- Due to the concerns of privacy when using AI, the Data Protection Policy is a linked policy that sets out the rules on data protection and the legal conditions that must be satisfied when we obtain, handle, process, transfer and store Personal Data which would apply if AI-powered systems and tools are to involve the processing of personal data.

Impact

We assess the children's work in Computing whilst observing them working during lessons. Formative assessment occurs on a lesson-by-lesson basis. Summative assessment must be completed once a unit of work has been completed. Teachers must select 3 examples of work that best fits *'working towards'*, *'secure'* and *'working above'*. Colleagues can monitor and secure their judgements by reviewing best fit examples within their year group to confirm teacher assessment. These examples must be saved into the computing area on the learning platform within the 'Assessment and Moderation' subfolders for each year group so evidence can be collated and monitored.

Formative Assessment

Self-assessment

In line with the National Curriculum, children are taught to debug their own programs, use logical reasoning to explain simple algorithms (including their own), and detect and correct errors in both algorithms and programs.

Peer-assessment

The ideas of self-assessment suggested above translate naturally into peer assessment, with pupils working with a partner to review, and help correct, algorithms and programs, or provide critical, constructive feedback on digital content.

Open questioning

Pupils' knowledge of the concepts covered by the programme of study may not be immediately apparent in the work they produce. The use of open questioning is one way in which you can both assess and develop their grasp of concepts.

Discussion with peers

Encouraging pupils to use similar open questions can be effective in allowing them to focus on what they've learned, rather than only on what they've done. Moving some of this discussion online, and perhaps involving pupils in other schools or countries, would be one powerful way to illustrate the opportunities offered by computer networks for communication and collaboration.

Target setting

Project management skills such as planning, organising, motivating others and allocating resources, are of great importance in real-world projects, and they can be widely applied in education.

Online Platform/Teams

Children's computing work should be stored on our shared online platform or in individual class accounts on Teams. Any work completed directly in a computing lesson should be exported to the specified areas.

Summative Assessment

Using this skills sheet, (See Appendix A) teachers will be able to check the progress of their pupils as they progress through the different units across the school.

Internet Safety

Internet access is planned to enrich and extend learning activities across the curriculum. However, we have acknowledged the need to ensure that all pupils are responsible and safe users of the Internet and other communication technologies both in school and outside (a separate E-Safety Policy has been produced to address this issue).

This policy has been written with the UN Conventions on the Rights of the Child: article 3 (best interests of the child), article 4 (protection of rights) article 16 (rights to privacy) article 17 (rights to gather information) article 28 (rights to an education) and article 29 (development of talents and abilities)

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