



COMPUTING POLICY Archibald First School

Rationale

Computing technology is changing the lives of everyone. Through teaching Computing we equip children to participate in a rapidly-changing world where 'computational thinking' is an essential skill. Computing should equip children with the foundation skills, knowledge and understanding they need for the rest of their lives. They will learn how computers and computing systems work, design and build a range of programs, develop their ideas using technology and create a range of content.

Aims

At Archibald, our overall aim is to produce learners who are confident, creative and effective users of technology, who are beginning to understand how digital systems and programs work and understand the many aspects of digital literacy. We also ensure that teachers develop confidence and competence to use technology to facilitate effective teaching.

Pupils should be given opportunities to:

- Use Computing effectively with purpose and enjoyment;
- Develop their technological capability
- Become computational thinkers, understanding how computers and their programs work.
- Have access to range of electronic equipment
- Become independent users of technology.
- Evaluate the benefits of new technology and its impact on society. For example, to learn about issues of security, confidentiality and accuracy.
- Meet the requirements of the National Curriculum as fully as possible and help all pupils achieve the highest possible standards of achievement.
- Celebrate success in the use of technology.

Additionally, all staff should aim to:

- Enable children to become familiar with technology in many contexts, supporting their learning.
- Develop children's confidence and satisfaction in the use of a wide range of technology.
- Enable children to take greater responsibility for their own learning and provide opportunities for them to decide when it is appropriate to use digital technologies in their work.
- Encourage the computational thinking for children to adjust to and take advantage of future developments in Computing.
- Provide a range of teaching and learning experiences to maximise pupil potential.

Teaching and Learning

As the aims of Computing are to equip children with the skills and understanding necessary to become digital citizens, the teaching style that we adopt is as active and practical as possible. We give children direct instruction on how to use hardware or software, and individuals or groups of children to use

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computers to help them in whatever they are trying to study. So for example, using digital research to enhance their learning, using simulations to become part of the time they are studying, or using digital hardware to capture experiences. We encourage the children to explore ways in which the use of Computing can improve their results, for example, presenting their work as a presentation, video or animation.

We recognise that all classes have children with widely differing abilities and therefore 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:

- Teachers using their professional judgement and assessment of pupils to decide whether children should work with a partner of similar ability to ensure pupils are developing at the same rate, or mixed ability to provide peer support for one partner. In some cases (e.g. A,G & T pupils) teachers may decide to allow pupils to work alone to provide extension activities, or with adult support.
- Allowing children to work at their own pace.
- Setting common tasks which are open-ended and can have a variety of responses;
- Setting tasks of increasing difficulty (not all children complete all tasks);
- Providing resources of different complexity that are matched to the ability of the child;
- Using teacher or adult support to aid children at the professional discretion of the teacher.

Entitlement

- All pupils are entitled to discrete timetabled Computing time each week, either in the Computing suite or using the set of laptops. This will be at least two hours.
- Pupils will be taught a balance of activities including: familiarisation and confidence with a range of hardware; word processing; graphic designing/art; desktop publishing; multimedia authoring programmes; control technology; animation and digital music programs: data logging: programming and coding; accessing and using the Internet and email. These activities are taught in age appropriate stages and built upon in subsequent years. (See planning)
- Within the Foundation Stage, Computing is used to support and enhance the curriculum as it is no longer part of Development Matters or Foundation Stage Profile. Coordinator supports staff to ensure computing is embedded into the curriculum.
- Computing skills and the application of these skills should be taught discretely, although teachers should, whenever possible, make links to other subjects. Following the acquisition of skills, pupils should be given the opportunity to embed these skills through cross-curricular work. This enables pupils to build confidence and flexibility as users of technology and enables teachers to use Computing effectively to support teaching and learning.

Inclusion

At Archibald First School we teach Computing to all children, regardless of their individual learning needs so they can fulfil their potential and be part of the school and wider community. Computing forms part of our school curriculum policy to provide a broad and balanced education for all children. We provide learning opportunities that are matched to the needs of children of all children. In some instances the use of Computing has a considerable impact on the quality of work that children produce; it increases their confidence and motivation. When planning work in Computing, we take into account the targets in the children's Individual Education Plans (IEPs).

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Computing Curriculum

- The Computing Long Term plan ensures progression and continuity in terms of the skills taught and the range of learning experiences for all children from Year 1 to Year 4. It has been designed to support the topics covered within each year group whilst ensuring that all areas of the Computing Curriculum are delivered.
- The National Curriculum learning objectives should be used as a basis for planning along with the Computing Progressions document as Archibald has based the teaching of key skills and the progression of teaching in Computing, featured in the long term plan, on both of these documents.
- Teachers should alter planning according to the needs of pupils and to make links with other areas of the curriculum.
- Planning is monitored termly by the Computing coordinator to ensure learning builds upon previous experience. Planning is altered as needed either by class teachers or jointly with Computing coordinator.
- Providing opportunities for pupils to practise and develop their Computing skills in other subjects ensures knowledge and understanding is developed.
- It is the responsibility of each teacher to plan appropriate Computing activities and assist the coordinator in the monitoring and recording of pupil progress.
- There is a distinction between teaching Computing and teaching with Computing: subject coordinators and class teachers should plan where Computing should be used in other schemes of work,

Assessment and Recording

A summative assessment is completed to ensure that all year groups have a progression of skills and programs.

Embedding Computing

Computing is a powerful tool, which can be used to enhance teaching and learning across the curriculum, challenging the most able while supporting those with learning difficulties. Pupils will be taught and given opportunities to consolidate skills through highly motivating cross-curricular activities. This will be achieved as follows:

- Computing is incorporated in the planning of each cross curricular topic.

Curriculum coordinators work alongside the Computing co-ordinator to embed, develop and monitor in relation to their curriculum area. Computing forms part of all subject action plans.

Learning Resources

- Currently there is a suite of 30 computers available for R – Y4 class teaching and a set of 35 laptops available for R – Y4 teaching. In addition every class from Nursery to Year 4 has access to a SMARTboard and 2 computers within their class. All computers are networked, linked to the laser printers and have Internet access. The suite of PCs and laptops are timetabled.
- There are 57 I Pads available. 30 I pads as a class set are stored in a trolley, Plus additional I pads available for staff and small group use. A small number of I pads have been assigned to children with additional needs.
- Teaching staff have their own I pad to use for modelling whole class teaching, taking photos,
- Additional support materials for teachers can be found in the Computing suite, from the Computing coordinator and from subject coordinators when using Computing to support other areas of the curriculum.

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- Microphones, Beebots, Raspberry Pis, Ozobots, Remote control cars, Makey Makeys and Green Screen are stored in the Computing cupboard in the lower hall.
- For additional Resources, we use GEM Education to provide us with other resources as part of their contract.
- Software will be monitored and updated to provide the best delivery of planned objectives. Software and subscriptions are necessary for both discrete Computing lesson and to support and enhance other curriculum areas. Funding will be deployed as necessary and discussed with subject coordinators.

Sustainability of Resources

As Computing has such a high profile within the school and Computing equipment and resources are used on a daily basis it is recognised that these will need to be replaced due to 'wear and tear' as well as being updated as technology advances.

The Computing technician and Computing co-ordinator will regularly monitor the condition of Computing equipment and along with their knowledge of new resources will seek to replace / replenish and invest in new hardware and software as necessary and in accordance with the school development plan. The need for new resources will also be addressed as the 3 year long term plan is evaluated on a yearly basis. Subscription charges and the expected date of renewal of large pieces of hardware are recorded in the sustainability plan.

Instead of buying more specialised Computing equipment, we use training from GEM education to allow children to access these resources.

Leadership and Management

The teacher designated as Computing coordinator should:

- Ensure the development of a scheme of work for the Computing curriculum, demonstrating progression across the Key Stages.
- Promote the integration of Computing within appropriate teaching and learning activities.
- Monitor planning, teaching and learning across the school.
- Develop and monitor the contributions of Computing to cross-curricular uses.
- Manage the provision and deployment of resources and give guidance on classroom organisation and support.
- Raise awareness of new developments and teaching opportunities in Computing and communicate best practice to other staff.
- Provide limited technical expertise, drawing on the expertise of LA technicians or network managers where appropriate.
- Coordinate the evaluation and review of the school's Computing policy.

Staff CPD

As Computing has an ever increasing role within the primary school and is integrated into all lessons it is vital that staff maintain high levels of Computing knowledge. New staff are expected to have a very secure level of Computing.

Curriculum coordinators must work along side the Computing co-ordinator to embed, develop and monitor Computing in relation to their curriculum area. It is important that Computing forms part of the subject action plans. Training and support is offered by Computing Staff and by GEM education, both through team teaching and discrete team sessions.

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Staff Development and Training

- Staff skills audits inform some training needs; these may be addressed as whole school needs, group needs or individual needs.
- The purchasing of new hardware or software may lead to the need for additional training not highlighted in the audit.
- Training is delivered through GEM Education, Computing coordinator and other suitable training may be offered (Barefoot)
- Support for teachers may also be given through team teaching and lesson observations.

Safe Practice

- Digital Literacy curriculum planning will be used at the beginning of each academic year to educate and inform children of the importance of need for digital literacy when using technology. This is a key feature of the Computing long term plan. In addition Digital Literacy links are highlighted through planning throughout the year,
- The Internet, E-Safety and Acceptable Use Policy (July 2021) outlines how children and staff are safeguarded against the risks associated with the use of electronic communications.
- Staff, children and parents must sign and adhere to the Internet and Acceptable Use Policies.
- Teachers should be aware of health and safety issues when working with computers and projectors; see BECTA guidance. The Computing coordinator should filter any new guidelines from LA to staff.
- Equipment will be disposed of in an environmentally friendly way when outdated. Information will be erased from all computers before they leave the premises. Decisions about disposal will be made by the Head and coordinator.

Monitoring and Review

This policy will be reviewed by the Teaching and Learning Committee every three years. The co-ordinator will be expected to produce a yearly subject audit plan and positional statement to the head and governors where appropriate. They will review their subject policy annually and make amendments where needed.

Last Review Date: Spring 2022

Next Review: Summer 2025