Newquay Junior Academy

Computing Policy

March 2025

This policy was developed on: March 2025

The policy will be reviewed on: March 2026

Introduction

Computing and ICT (Information and Communications Technology) play a vital role in our lives, particularly in current times where technologies are constantly changing and evolving. A sound knowledge and understanding of ICT and Computing enables and prepares pupils to be active participants in a world where work, and other activities, are increasingly transformed by access to varied and developing technology. It is our duty as educators to ensure all children have access to an education in which such technologies are available and skills taught and practiced to a high standard in a variety of ways.

In September 2013 the Department for Education published the new National Curriculum for Computing, to become effective by September 2014. The new curriculum reflects the developments that have taken place over recent years; shifting focus from children learning how to **use** computers, to becoming competent and confident analytical thinkers, computer programmers and understanding **how** technology works. The new curriculum encompasses three main strands of Compting (C), Information and Communication Technology (ICT), and Digital Literacy (DL) which will be outlined in this policy.

This policy should be read in conjunction with the E-safety, Acceptable Usage and Information Security policies.

Purpose

This policy aims to reflect the school values and philosophy in relation to the teaching and learning of C, ICT and DL. It is intended as an outline to establish what we will do, and as a guide for teachers, non-teaching staff, parents and governors.

The purpose of the C and ICT policy at Newquay Junior Academy is:

- To establish a framework for teaching and learning which meets the requirements of the new Computing Curriculum 2014;
- To promote a good understanding of what C, ICT and DL are and how they will look at Newquay Junior;
- To establish clear expectations for staff and pupils;
- To promote continuity and coherence throughout school;
- To establish clear procedures and guidelines for staff to operate within.

Aims and Objectives

We aim for our curriculum to:

- Provide a whole school approach to C and ICT, ensuring continuity and progression;
- Provide children with opportunities to develop their computing capabilities in all areas specified by the National Curriculum Computing Programme of Study;
- Provide challenge and excitement for our pupils, both in C / ICT and through their use across the curriculum;
- Inspire children to be creative and innovative with new and emerging technologies.

We aim for members of staff to:

- Be confident users of new technologies to be able to use them effectively as powerful tools to support and enhance teaching and learning opportunities across the curriculum;
- Develop good subject knowledge in relation to C, ICT and DL so that they are able to deliver high quality lessons to enable pupils to be challenged and achieve highly;
- Use computing technologies, when appropriate, to improve access to learning for pupils with a diverse range of individual needs, including those with SEN and disabilities.
- Provide pupils with challenging, engaging and motivating lessons;

We aim for our children to:

- Become autonomous, independent users of computing technologies;
- Be confident users of new technologies and be able to experiment with them in different ways to communicate learning;
- Be able to use logical thinking and reasoning to solve problems;
- Gain and apply new skills and knowledge in the areas set out in the POS;
- Understand how their C and ICT learning in school impacts on their future lives;

The Computing Curriculum 2014 – C, ICT and DL

The introduction of the new Computing Curriculum focuses on three main areas:

- Computer Science / Computing (C) – *The ability to understand how technologies work and* ***how to be an effective author*** *of them. The ability to apply logical reasoning and computational thinking to solve problems.*
- Information and Communication Technologies (ICT) – *The ability* ***to be an effective and thoughtful user*** *of technologies to store, present and communicate information.*
- Digital Literacy (DL) - *The ability to locate, organise, understand, evaluate, and analyse information using digital technology. It involves a working knowledge of current 'high-technology', and an understanding of how it can be used.*

As described above, C and ICT are different, but complimentary subjects. It is also important to note that much of our C curriculum will be non-computer based. The focus in this area is computational thinking and logical reasoning to equip our children with the thinking skills they will need to solve computer based problems. As described by Edsger Dijkstra - "We need to do away with the myth that computer science is about computers. Computer science is no more about computers than astronomy is about telescopes, biology is about microscopes or chemistry is about beakers and test tubes. Science is not about tools, it is about how we use them and what we find out when we do."

At Newquay Junior Academy, the curriculum will be planned and taught based on these three key areas, each of which will be featured on medium and short term planning. During the first two years of the new curriculum, the whole school will cover the same area during the same term to allow for training and development opportunities, as well as ensuring the appropriate resources are available.

Teaching and Learning

The time allocated to the teaching of the C aspects is flexible and arranged by the class teacher to best suit the needs of the children. The guidelines below are followed by each teacher:

- C should be taught as a discrete discipline during the first two years of the introduction of the new curriculum;
- The teaching of new ICT / DL skills should be discrete (E.g. basic skills in using new software and/or equipment);

- Children should be given as many opportunities as possible to apply their C, ICT and DL skills across the curriculum and in creative ways (E.g. as an option to present work);
- There are no minimum or maximum requirements in relation to time spent on the teaching and learning of C, ICT and DL per week. However, the class teacher must ensure through careful planning and reviewing, that each learning objective from the C and ICT / DL curriculum is covered thoroughly and that C and ICT / DL are an integral part of the whole curriculum.
- Teachers must show coverage of learning objectives and how these are being met, on a short term planning grid as set out by the ICT Coordinator. This includes discrete C and ICT / DL as well as those taught in a cross curricular way in other areas. Learning objectives for each year group are outlined on previous pages.
- Planning must be centred around the needs of the pupils and designed to meet a range of differing needs, including those needing additional support.
- Planning must show differentiation by highlighting key questions that may be asked of pupils to challenge or support them further.
- Where appropriate, planning must be linked to topics being studied.

Assessment

Summative Assessment:

The assessment of C and ICT / DL is currently a work in progress due to the implementation of the new curriculum. At present, the expectations are as follows, but are subject to revisions:

- **Key Stage 2** works at levels 2 – 5; (At age 11 they are expected to be at Level 4)

The Computing Lead will introduce the new level descriptors to staff to implement in 2020/21. This will reflect current guidelines and expectations as set out in the 'Computing at School' document recommended by the Department for Education. This will be reviewed at the end of each term to assess its suitability to meet the needs of our school and curriculum. Members of teaching staff will be consulted at each stage.

Formative Assessment:

In order to ensure lessons are pitched correctly and children are challenged, teachers must regularly check progress alongside the level descriptors and expectations explained above. This should occur and be recorded on a lesson by lesson basis using the assessment tool supplied by the Computing Lead. This will feed in to the summative assessment where levels are collected at the end of each school year. Evidence of learning is also to be recorded in pupil's learning journals on a termly basis.

Roles and Responsibilities

The Computing Lead – The school has a designated Computing Leader to oversee the planning, teaching and organisation of C and ICT / DL. The ICT Lead will be responsible for:

- Raising standards in C and ICT / DL across school by:
- Supporting others in planning, teaching and assessment;
- Facilitating the use of Computing across the curriculum, in collaboration with other subject coordinators;
- Ensuring staff are up to date with training to enable them to deliver the curriculum confidently and effectively.
- Providing advice to staff in terms of resourcing, planning, using software and equipment, effective resources;
- Managing school resources to ensure we have the technology to be able to deliver the new curriculum effectively;
- Monitoring the planning and delivery of the new C curriculum and reporting to the Head Teacher.

The Head Teacher and Governing Body – The Head Teacher and Governing Body provide support for the ICT Coordinator to fulfil their role, as outlined above. The will provide support by:

- Ensuring teachers are able to deliver the new curriculum by having access to the appropriate training and resources necessary;
- Providing opportunities for the Computing Leader to work with staff to plan and deliver lessons for the new curriculum;
- Reviewing policies relating to C, E-safety and Information Security.

The Class Teacher – The class teacher must:

- Follow the guidelines set out in the C, E-safety and Information Security policies.
- Plan effective C and ICT / DL lessons using the objectives from the long term plan outlined in this policy;
- Ensure all objectives for their year group are planned for either through discrete or cross-curricular lessons;
- Provide many opportunities for C and ICT / DL skills to be applied by pupils in a variety of ways, using a wide range of technology and software;
- Plan lessons which will support and/or challenge pupils as appropriate;
- Ensure they have access to a range of necessary resources to be able to deliver the curriculum effectively. This includes liaising with the Computing Leader that resources are available, ensuring equipment is ready to be used, and returning equipment for others to use. Any breakages or faults must be reported by teaching staff to the Computing Leader.
- Support the Computing Leader in monitoring and assessment by completing the relevant planning and assessment grids at the end of each term.
- Ensure support staff have access to planning and have the knowledge and skills to be able to support and challenge them in completing tasks.

Support Staff – Support staff must:

- Ensure they have the relevant planning necessary to support and challenge pupils;
- Ask for support from the class teacher and/or Computing Leader to ensure their training requirements are met.

Monitoring and Evaluation

In order to ensure the curriculum is being planned for and delivered effectively, the Computing Leader will monitor the following:

- The training requirements of staff as new concepts and technologies are introduced to the curriculum;
- The impact of training already undertaken;
- Planning and assessment formats – taking on board any suggestions from staff on how they could be amended or used more effectively;
- Planning for each year group to ensure it is pitched appropriately, challenging, engaging, uses a wide range of resources and meets the requirements of the new curriculum;
- Children's work. This will be done in a variety of ways, including work scrutiny with commentary from the class teacher on how it was done; conversations with pupils; pupil skills audits;
- Computing teaching and learning by observing in the classroom, where possible.
- The impact of the Computing action plan and how this can be taken forward to further develop the subject;
- School resources to ensure staff and pupils have access to the appropriate and necessary equipment and software.

By monitoring the above areas, the Computing Leader, Head and Governing Body will be able to identify any areas of strength and development. These will be used to inform the next action plan to ensure clear direction.

Staff Development

At Newquay Junior Academy, we have a wide range of staff with differing areas of skills and knowledge in terms of C and ICT / DL. There is an expectation that all staff with endeavour to keep up to date with new developments and requirements in this area. To support this, the Computing Leader, Head Teacher and Governing Body will:

- Provide regular updates with regards to the new curriculum;
- Identify key areas to develop staff knowledge and skills;
- Provide opportunities for staff training in areas identified and/or requested. This may be delivered by the Computing Leader outside agencies;

- Identify areas of strength in knowledge and skills, and encourage these members of staff to assist in training and supporting others as well as leading by example and leading projects or specialism areas (E.g. programming, podcasting, blogging).

Inclusion

It is our policy that all pupils regardless of race, class or gender have the opportunity to develop their Computing and ICT capabilities, in line with our Equal Opportunities policy. Specific support in the teaching and learning of Computing for children with SEND is outlined in the document "Supporting Children with SEND in Computing".

Resources and Access

Computing resources are accessed and deployed in a number of ways throughout school. This ensures the maximum amounts of resources are available and easily accessible to support delivery of an effective and powerful computing curriculum. At present we have:

- A computer suite containing 32 desktop computers. This is timetabled on a weekly basis. Class teachers are designated available slots each day to fit in with their C and ICT / DL needs;
- 10 iPads stored securely in the locked iPad cases. These are timetabled as per the computer suite. Classes may take all or some of the iPads when timetabled. Class teachers must request any Apps they may need, which will be purchased by the Computing Leader/ICT Support;
- 1 staff PC per classroom. This can be used by the teacher to display learning materials, or by children as directed by the teacher.
- 1 iPad per year class.
- Up to 4 other laptops per classroom. This should be used by the children where appropriate, and can be an independent task or adult-led;
- Year 4 & 5 have one class set of Samsung Galaxy tablets each to use to support pupils preparing for the Times Tables assessment at the end of Year 4 and with additional learning in Year 5. This is shared between the year group and can be deployed to other year groups as required on request by the appropriate HOY.

A school network enables internet access to all devices in the school building, including mobile devices via Wifi. The school network is secure and can only be accessed by user name and password – monitored by the Computing Leader. The network also offers access to a shared area in which documents are stored and accessed. Please refer to the E-safety, Acceptable Usage and Information Security policies for further details.

Online safety

Internet access is planned to enrich and extend learning activities. The school has acknowledged the need to ensure that all pupils are responsible and safe users of the Internet and other communication technologies. We aim to provide a curriculum which includes education on how to stay safe online and when using other technology. We also offer a safe online environment through filtered internet access. Please refer to the school E-safety, Acceptable Usage and Information Security policies for further details. Online safety lessons are delivered at the beginning of all computing units and where needed at the end as well. Online safety is also delivered across the curriculum, particularly through PSHE lessons.

Other Documents

Please also refer to the following documents for further and supporting information:

- E-safety policy
- Acceptable Usage policy
- Information Security policy
- KS1 and KS2 National Curriculum Coverage documents
- National Curriculum Level Descriptors for 2014