Policy Connections
The policy should be read in conjunction with the Scheme of Work for computing, which sets out in detail what pupils in different Key Stage ability ranges will be taught, the Acceptable User Policy, the on-line safety policy, the staff communication policy and the Supplementary Guidance for policies document.

Audience
This document is intended for all staff with classroom responsibility, school governors, parents, inspecting teams, local authority advisors and others interested in the teaching of computing at The Loyne Specialist School. It is available on the T drive and on the school website as required.

Aims and purpose of study
Computing has deep links with Mathematics, science and design and technology and provides insights into both natural and artificial systems. 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 – able to use, and express themselves and develop their ideas through information and communication technology (National Curriculum 2013).

The Aims
1. To enhance pupils' skills, knowledge and understanding of computing (including computer science, information technology and digital literacy).
2. To support teaching and learning in a motivating context, helping to provide access to the wider curriculum of our school.
3. To develop ideas using information technology to amend and refine their work and enhance its quality and accuracy.
4. To develop the tools needed in order to be responsible, competent, confident and creative users of information and communication technology.

These aims are consistent with our school philosophy and take account of LA curriculum policy and National Curriculum Statutory guidance

Programmes of Study
There are 3 strands of study at Key Stages 1 and 2, which extend through Key Stages 3 and 4 to provide coherence. They are:
  • Computer science
  • Information Technology
  • Digital Literate

Each Programme of Study is differentiated to allow all our pupils to access the content in a meaningful and realistic way. Further details of this can be found in the Schemes of Work for each Key Stage.

Method of delivery
The curriculum organisation and structure is outlined in the policy document entitled 'Curriculum and School Organisation'. The procedures for planning, teaching and learning strategies, monitoring and evaluation are outlined therein.

At The Loyne Specialist School, Computing is delivered continuously throughout the curriculum at all Key Stages. Early Years Foundation Stage and F.E. follow a separate curriculum (see separate documents).

Early Years Foundation Stage
Pupils in the Early Years Foundation Stage (EYFS) follow the educational programmes outlined in the framework for the EYFS. The strands personal, social, emotional development and understanding the world will give opportunities to play and explore and learn in an active and creative way. The document 'Development Matters' will be used to support the planning and assessment of activities. These opportunities will provide broad and balanced experiences that will prepare pupils for the KS1 Computing curriculum.

Primary Phase
(ICT is delivered throughout the curriculum at KS1 and 2)

KS1
1. Opportunities to observe explore and experience a range of ICT tools and explore and respond to a variety of stimuli.
2. Explore information from a range of sources, make choices and communicate them to others by a variety of means.
3. Learn that information can be presented in different forms and that it can be used to help them make choices and to communicate likes and dislikes.
4. Use technology safely.

KS2
1. Experience and explore a range of ICT tools and devices. Use information from the environment to make simple choices. Communicate these choices by appropriate means learning that they can have an effect on the environment and on other people.
2. Know that information can be gathered from different sources and that it can be used to help them make simple decisions and choices.
3. Understand that digital devices can be controlled by instructions Have opportunities to create and debug simple programs to predict the behaviour of simple programs.

4. Use technology to create, organise, store, manipulate and retrieve digital content. Communicate what they like and dislike about their work.
5. Recognise common uses of information technology beyond school. Use technology safely and respectfully, identify where to go for help

Secondary Phase
(ICT is delivered both throughout the curriculum and as a discreet subject at KS3 and 4)

KS3
1. Experience and explore different sources of stimuli. Use the information to make simple choices and communicate them to others by appropriate means.
2. Explore different sources of stimuli and information. Use information to make choices and simple decisions and to control the environment using simple devices.
3. Use ICT to develop their ideas and to present them in different forms. Communicate their likes and dislikes about their work. Be given the opportunity to operate a range of devices.
4. Investigate and compare the uses of ICT inside and outside school.
5. Create and debug simple programs
6. Be aware of computer networks including the internet
7. Carry out an increased range of tasks using a wider variety of information sources and use ICT to produce high quality work.
8. Use technology safely and respectfully, keeping personal information private, identify where to go for help and support when they have concerns about content or contact on the internet of other online technologies

KS4
1. Understand that digital devices are controlled by instructions (algorithms) and how there are implemented as programs and that these are executed by following precise and unambiguous instructions
2. Understand how computer networks provide multiple services and the opportunities they offer for communication and collaboration
3. Carry out an increased range of tasks using a wider variety of sources and information.
4. Use search technologies effectively, appreciating how results are selected and ranked and be discerning in evaluating digital content.
5. Use Information Technology to produce and present work of a high standard.
6. Understand the use of computing in their everyday lives and work with increased independence.
7. Use ICT to enhance their work in vocational areas.
8. Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

FE Centre

ICT is delivered in accordance with the FE Scheme of Work and students are externally accredited for ICT using ASDAN or Ascentis examination in accordance with their level of work. ICT is delivered throughout all subjects and is also delivered through discreet units of work.

ICT Homework Packs

A variety of ICT based homework packs are available from the central resource area. These packs cover a variety of ages and abilities

ICT Portfolios

All Teaching assistants are required to work towards completing a checklist of ICT skills. Portfolios are monitored in the Summer Term by the Subject Leader for computing.

Assessment, Recording and Reporting

Pupil's progress in computing will be assessed using B-Squared against the strands of
- Computer Science
- Information Technology
- Digitally Literacy

Resources

ICT resources at The Loyne Specialist School are continually being developed and reviewed. The subject leader supported by the technician will offer advice and INSET on new equipment and technologies and support their introduction into classrooms use.

Every class has access to Multimedia PC's and printers. Each class is connected to the Internet via the CLEO broadband connection. Additional computers are available in staff room for staff use and each department has access to a laptop trolley which they connect to the Internet via wireless connection.

A variety of inclusive access models are incorporated throughout school taking into account the individual needs of pupils, ranging from single press switches, touch screens, concept keyboards, roller balls joysticks and eye gaze.

Software is differentiated throughout school to show progression. It is upgraded as and when necessary, taking into account any recent developments. Each class has their own copy of Boardmaker / Communicate in Print2 to assist in the making of resources and Records of Achievement. Every class also has a copy of Textease.

Hardware: Interactive Whiteboards are installed in all classes (a moveable interactive screen is in Smart Start 1).   Classes have their own voice output devices consisting

of at least 1 Big Mac or similar and 1 Step-by-Step Communicator. Each class has a digital camera and a video camera to assist in assessment opportunities. The exact destinations of equipment can be identified. Please sess ICT Technician for details.

Updated by: Emma Flynn
Policy updated: February 2017
To be reviewed: February 2021