Bunscoil an Iúir

Ní neart go cur le chéile.

Information and Communications Technology

Integrating ICT Across The Curriculum

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Philosophy

Our school believes that there is an inextricable link between the proper use of ICT and children's learning in all areas of the curriculum. In recent years there has been a revolution in ICT and computers and their functions have now become an integral part of the society we live in.

It is vital that the pupils of Bunscoil an Iúir gain the necessary and appropriate skills and confidence needed to prepare them in later life. The use of ICT creates opportunities for children to extend their learning experiences outside of the classroom and promotes independence and creative thinking. ICT allows pupils to present information in new ways, helping them to understand and assimilate information more readily. Due to the instant nature of the Internet, pupils can access and assimilate new information more readily. The children of Bunscoil an Iúir are part of a new worldwide generation, who have been exposed to high levels of technology since early childhood. By using ICT in school, we can enthuse and motivate these children to produce effective individual / group or whole class work. The skills which are developed here in Bunscoil an Iúir are skills which children can utilise for life, in future education and employment. There are fantastic opportunities for us involved in Gaelscolaíocht (Irish Medium Education) to use ICT to create programmes to assist in children's learning in all areas of the NI Curriculum.

The Role of ICT in the Revised Northern Ireland Primary Curriculum

ICT is a statutory tool to assist teaching and learning across the curriculum. It has the potential to transform and enrich pupils' learning experiences and environments. By using ICT we can empower children, develop self esteem and promote positive attitudes to learning.

> ****"Additionally, the creative use of ICT has the potential to improve pupils' thinking skills, providing them with opportunities to become independent, self-motivated and flexible learners."**

* DE: A Strategy for Education Technology in Northern Ireland
**Northern Ireland Primary Curriculum.

ICT in the Curriculum

"At the heart of our curriculum lies an explicit emphasis on the development of skills and capabilities for lifelong learning and for operating effectively in society."
(Page 5. Primary Curriculum Document)

Using Information and Communications Technology is one of three cross curricular skills:

- *Communication*
- *Using Mathematics*
- *Using Information and Communications Technology*

Using Information and Communications Technology

Information and Communications Technology across the curriculum has the potential to transform and enrich pupils' learning experiences and environments. It can empower pupils, develop self-esteem and promote positive attitudes to learning. Additionally, the creative use of ICT has the potential to improve pupils' thinking skills, providing them with opportunities to become independent, self-motivated and flexible learners.

Pupils should develop the skills of Using ICT by engaging in meaningful research and purposeful activities set in relevant contexts. They should use ICT to handle and communicate information, solve problems, pose questions and take risks. They should process, present and exchange their ideas and translate their thinking into creative outcomes that show an awareness of audience and purpose. They should also use ICT to collaborate within and beyond the classroom, to share and exchange their work and to exhibit and showcase their learning.

(Page7. Primary curriculum Document)

The 5 E's of ICT

Pupils in Bunscoil an Iúir will have opportunities to develop their skills using ICT through a range of purposeful activities set in relevant contexts. ICT should be used to process, present and exchange ideas, both inside and outside the classroom.

Within the Revised Curriculum there are 5 Key areas where children should be given the opportunities to develop skills.

These are:

- Explore
- Express
- Exchange
- Evaluate
- Exhibit

Explore
- Access & manage data and information
- Research, select, process and interpret information
- Investigate, make predictions & solve problems using digital tools
- Understand how to keep safe and display acceptable online behaviour

Express
- Create, develop, present and publish ideas and information using a range of digital media
- Create information and multimedia products using a range of assets

Exchange
- Communicate using a range of contemporary methods & tools
- Share, collaborate, exchange and develop ideas digitally

Evaluate
- Talk about, review and make improvements to work, reflecting on the process and outcome

Exhibit
- Manage & present their stored work
- Showcase their learning across the curriculum

ICT Resources

The ability to use ICT is a vital skill in modern society. ICT includes the use of equipment that enables users to communicate or to manipulate information electronically.

- Computers - Hardware and Software

- The Internet and E-mail

- Microphones/Easi-speak

- Use of Headphones

- Cameras – digital / web

- Remote Control Devices

- Programmable Technology – Roamer/ Beebot / Probot

- Scanner

- Interactive Whiteboards

- Visualisers

- Ipads

As children progress from P1-P7, they are given opportunities to use a variety of these ICT resources.

ICT Planning & Implementation Aims of Bunscoil an Iúir

We aim:

- To raise levels and standards of pupil competence and confidence in using ICT - by developing children's knowledge, understanding and skills in using a range of ICT tools to enhance learning experiences across the curriculum.
- To raise levels of teacher competence and confidence in integrating ICT into their planning, teaching and assessment of children's work (using ICT as an integral part of the processes and the management of teaching and learning).
- To use ICT to enhance and enrich children's learning and add to its enjoyment.
- To provide access to electronic sources of information and interactive learning resources.
- To enable children and teachers to have access to immediate and up-to-date sources of information.
- To develop children's independent learning skills using ICT across the curriculum.
- To develop information handling and research skills.
- To provide opportunities to share practices with colleagues through school website, texting /emailing service.
- To Review/Audit of where we are in terms of ICT on an annual basis.
- To provide teachers/classroom assistants and other staff members with training identified in the audit of resources and training needs.
- To Implement CCEA accreditation tasks.
- To develop the 5 E's.

Resource Provision and Organisation

Bunscoil an Iúir has a networked ICT system consisting of (4) printers, (8) PC's, (9) laptops, (1) photocopier with a scanning facility. We also have 2 MacBooks, a valuable resource which allows staff to record reading books in Irish and give them to parents to enable them to read at home with their children in Irish. There is a number of laptops obtained through the Connecting Teachers to ICT programme. There are also digital cameras and a range of programmable technology. More recently we have acquired 12 iPads, and purchased suitable Apps, which really can enhance literacy and numeracy skills.

Organisation of Resources

- There are 1-2 networked PCs and laptops located in each classroom.
- All C2K PCs provide over 70 software titles to suit curriculum needs. Teachers select software titles appropriate to children's needs and abilities, taking into account progression from P1-P7
- All classrooms are equipped with C2K PCs which provide connection to the Internet
- Through the network there are shared printing facilities. Colour and b/w printers are located either within the classrooms or in a central resource area agreed by teachers.
- There are Interactive Whiteboards in all classes, 1 promethean ActivBoard in Primary 1 & the rest are Smart Boards.
- The Central Data Projector and screen in the main hall with built in speakers, DVD player etc are available for use also.
- Laptops are available for use on network, standalone classroom use and for home use.
- Teachers have a laptop each. A record is maintained naming the teacher using each laptop and laptop number. (See Appendix)
- Teachers may connect laptops to network points in staffroom in order to carry out personal research, planning etc.

Access

Pupil Access

- All children have access to the Classroom 2000 Managed Service.
- Through C2K computers all pupils have access to software titles appropriate to their curriculum needs and learning needs.
- Through C2K computers all children have access to the Internet.
- Through the network, children in each classroom have access to both colour and b/w printing facilities.

Pupil Assistance and Supervision

- Children use ICT resources under the guidance of the Classroom Teacher, or Classroom Assistant.
- The use of the Internet is always a supervised activity.

Teacher Access

- All teachers have access to the Classroom 2000 Managed Service.
- Through C2K computers, all teachers have access to software titles appropriate to their curriculum planning needs and classroom practice.
- Through C2K computers, laptops & Ipads, all teachers have access to the Internet.
- All teachers have access to laptops available for use on the network and for home use.
- All teachers have access to ICT equipment such as the interactive whiteboards, digital camera, scanners etc, to facilitate a variety of teaching approaches.

Classroom Management of ICT Resources

Where appropriate, children will have opportunities to use ICT resources to carry out:

- Individual work
- Group activities
  Children will generally work in pairs at the computer.
  It is important that all children are engaged on task and can see the screen comfortably therefore no more than three children will work together at one computer.
- Whole class activities
  Children may share in a computer-led activity where there is access to an Interactive Whiteboard.
- A variety of opportunities will be planned across the curriculum to give children opportunities to develop their skills.
- The computer will not be used as a reward for the child who has completed his/her work first.

Planning, Monitoring and Evaluation

Planning at Whole-School Level.

- The Principal/SMT/ICT Co-ordinator/All Staff consult on how ICT is incorporated into the School Development Plan.
- In consultation with all staff an ICT Action Plan is drawn up annually by the ICT Co-ordinator and is reviewed by all staff as appropriate.
- A line of development in ICT ensuring progression and continuity for children from P1-P7 has been agreed by all staff. (March 2011).

Planning at Year-Group and Class Levels

- ICT is embedded into Schemes of Work/Yearly Planners
- ICT is integrated into bi-monthly planners taking account of progression

Teachers meet as a whole staff to discuss and review progress, share experiences of using ICT, look at samples of children's work and discuss effectiveness of planning.

Assessment, Recording and Reporting

Children's use of ICT is assessed and recorded by the classroom teacher using the following approaches.

- Formative assessment methods - observing and questioning during classroom activities
- The child's achievements may be recorded by the teacher completing a check list of skills, knowledge and understanding.
- Summative assessment methods - in collecting samples of children's work using ICT, use of ICT tasks including 5 Es.
- The class teacher in turn provides samples of work to the ICT co-ordinator.

As ICT is infused through each Curricular area, using the 5 E's, it may not always be practical to provide evidence of a particular skill e.g. a child's ability to use a search engine effectively (Explore) Each teacher may place samples of the use of ICT in the Curriculum onto the PUBLIC folder, to show how skills are developing across the Curriculum.

Teachers will report on a child's progress:

To the Next Teacher:

- By discussing progress
- By passing on samples of work.
- By passing on skills checklist if one is available

To Parents/Carers:

- By informal discussion during parent interviews
- By a formal comment regarding ICT Competence on the child's written annual report

Provision for Pupils with Special Educational Needs

It is important to recognise the potential of ICT to help address children's individual learning needs. ICT is used to enhance the learning experiences of children with special educational needs within the school.

- Where appropriate specialist hardware equipment, such as a touch screen, big mouse, big keyboard etc. will be made available to meet a child's needs.
- Where appropriate, teacher developed resources such as Literacy Activity builder word banks are used to assist learning.

Teachers will familiarise themselves with the variety of graded levels within frequently used software in order to provide differentiation and cater for children with special educational needs within their classrooms.

Where children with special needs are working in withdrawal groups they will have access to appropriate ICT resources.

Equity of Access

All children will have equity of access to the use of ICT across the curriculum. The school will guard against gender stereotyping with encouragement given to both girls and boys to engage in ICT related activities. Children of all ages, ability levels, and backgrounds will have equal access to ICT resources.

It is important that children who do not have ICT resources at home should not be disadvantaged. To seek to facilitate this, provision may be made to permit children to work on school projects etc during school hours.

Health and Safety

Each classroom has rules for safe use of the computer – devised and discussed with children and displayed in room.

In all classrooms consideration is given to health and safety in the location and positioning of equipment. The following issues are addressed.

Position and Posture of the child

Children should be seated correctly at the computer:

- When using the computer the child should be able to sit upright on a chair which gives some back support, having their arms roughly horizontal when using a keyboard.
- The child's body should face forwards, not twisted sideways.
- The child's feet should reach the floor. Ideally the chair height will be adjustable to suit all the people who will use it.
- Children sharing a computer should be encouraged to make sure that everyone in the group can see without straining.
- Children should be looking down at the screen with the top of the screen roughly at their eye level.
- Children should be shown how to hold the mouse lightly in the widest part of their hand so that a very small movement is needed to click a button.

Furniture

- The computer table/bench should be of a height appropriate to the size of the child (lower benching in Foundation Stage & KS1)
- The monitor should be kept well back from the front edge of the table/bench.
- There should be space on the computer table/bench for the keyboard in front of the monitor.
- There should be enough space on the computer table for a mouse mat to be used.
- Computers should be positioned to avoid glare from light or windows.

Reducing Risks

- Due care will be taken not to overload extension cables or double socket adapters where it is necessary to use such equipment.
- Leads should not trail on the floor.
- Damaged plugs or leads will be replaced.
- Ventilation grills should not be blocked as overheating may occur.

There is a slight risk of triggering epileptic seizures from excessive screen flicker. As monitors can vary in the steadiness of screen image due care will be taken to use a monitor with minimum screen flicker where an individual child may be at risk.

ICT in the Home and in the Community

An increasing number of children have access to computers in the home or through their out-of-school activities.

In keeping with the school's desire to promote ICT, children will be encouraged to make use of home computers and ICT resources available through places such as After School Clubs, Libraries, and Youth Clubs.

Where appropriate children will be given opportunities to make use of ICT resources to:
- Carry out research to support classroom work, projects etc.
- To complete work begun in school
- To carry out or present a homework task

Work carried out on home computers should be valued. It is important to ensure that a consistent approach to children's use of home computers is taken in each class as a child progresses through the school. A child may email his/her work to school to be printed out **ONLY IF** they understand the proper use of the internet.

As indicated in our approach to equity of access, children who do not have ICT resources at home should not be disadvantaged. To seek to facilitate this, provision may be made to permit the use of computers beyond normal school hours whether through "homework clubs", computer clubs or time set aside within the school day.

Staff Training

Staff development in ICT is ongoing within the school. It is our aim to raise the level of teacher competence and confidence in ICT by:

- Ensuring follow-up action is taken to meet the further training needs of teachers as identified
- Making provision for C2K Training – assisting teachers to use the network system effectively and with confidence
- Giving teachers opportunities to attend INSET – to develop their knowledge and use of C2K software across the curriculum
- Providing in-school support for teachers requiring assistance in developing particular aspects of ICT skills knowledge and understanding

The Role of the ICT Co-Ordinator

The role of the ICT Co-Ordinator

- To provide leadership and direction
- To ensure that the use of ICT is managed and organised to meet school aims and objectives
- To play a key role in school policy development in relation to ICT and teaching and learning
- To liaise with staff in order to set priorities and targets to improve ICT provision
- To support, guide and motivate colleagues - which may require the provision of training for staff
- To contribute to the monitoring and evaluation process
- To keep up to date with recent developments in ICT and advise colleagues appropriately
- To ensure continuing personal professional development

The Responsibility of the Classroom Teacher

It is the responsibility of the classroom teacher to:

- Integrate ICT into curriculum planning, classroom teaching and the assessment of children's work
- Ensure that any ICT resource/software used in the classroom is appropriate to curriculum needs and children's learning needs.
- Ensure health and safety practices are carried out.
- Discuss and devise with the children rules for using the computer.
- Implement the Internet Safety Policy.
- Contact the ICT Co-ordinator if any experiencing any problems after having carried out the necessary checks first.

As ICT resources increase and pupil and teacher ICT competence develops it is important to review the ICT Policy and to evaluate its effectiveness.