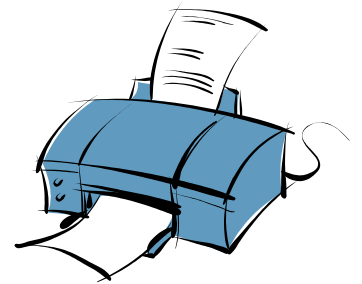# ICT Policy

St Mary's Primary School Glenview

ICT Policy

General Statement

ICT comprises a variety of systems that handle electronically retrievable information. These include computers, programmable robots, tape recorders, calculators, digital cameras and video cameras.

ICT is concerned with the handling of electronic information and involves creating, collecting, holding, processing, presenting and communicating this information in a variety of ways for a variety of purposes.

Rationale

Why should our pupils use ICT?

- ICT can enhance the learning process across all areas of the curriculum.
- ICT enables pupils to undertake activities which would be difficult to pursue in any other way.
- ICT takes the laborious routine out of some text and information tasks giving greater scope for pupils' creativity.
- ICT can motivate and enthuse pupils.
- In the information society in which we live, pupils need to develop ICT skills in order to access relevant information.
- ICT gives pupils immediate access to richer source materials.
- ICT has the flexibility to meet the individual needs and abilities of each pupil catering for both weak and high achievers.
- ICT promotes access for pupils with learning difficulties.
- ICT offers potential for effective group work and collaborative learning.
- ICT supports different types of learners – audio, visual and kinaesthetic.

Aims

Our aims in using ICT are to:

- extend and enhance learning across all areas of the curriculum.
- encourage pupils to select and use ICT appropriate to the task.
- Encourage the development of autonomous learners
- develop practical skills in the use of ICT and the ability to apply these skills to the solving of relevant and worthwhile problems.
- give children access to a variety of sources of information.
- instil in children a sense of confidence, achievement and enjoyment

Strategies for use of ICT

- ICT is not taught as a distinct subject, but is a tool to be used as appropriate throughout the curriculum.
- ICT will where appropriate be integrated into each area of study to support and enrich children's learning.
- All pupils are given equal access opportunities through management of ICT use.
- ICT is offered as an entitlement for all pupils – it should not be perceived as a punishment or reward.

Progression

Pupils' ICT skills and competencies have been developed from Primary One to Primary Seven.

Progression in each of the four strands of ICT has been identified and agreed by all staff

COMMUNICATIONS

KEY STAGE	ICT COMPUTER SKILLS COMMUNICATIONS	CURRICULAR ACTIVITIES	SUGGESTED SOFTWARE
LOWER KEY STAGE ONE	*Use Concept Keyboard to:* • Input text to compose • Input text to sequence / match (from given phrases) **Use Computer Keyboard to:** • Use word lists • Input own name / other simple text • Use Space bar, SHIFT, DELETE, full stop, ENTER Select print option	**Personal Writing** – All about me. *(Myself, My Family and Friends, My School, Special days, Visits etc)* **Nursery Rhymes** – Sequencing lines, beginnings and ends. Etc. **Fairy Tales** – Invitation to a Prince Charming Ball, Recipes for 7 dwarfs. Etc.	Concept Keyboard (Informax / Concept Editor) Writer Talking Write Away / Talking First Word Clicker 4 Painter
UPPER KEY STAGE ONE	• Compose simple sentences and stories • Take a new line only when necessary • Insert/delete a word • Insert a graphic from within the program with / without help • Use on-screen icons • Select and edit text • *Print, change fonts, use graphic, save work* • Start / reopen saved work • Edit / format onscreen (eg Bold, highlight, underline • Use the spell checker	Create individual descriptive stories, poems, riddles etc. Retelling stories, creating new tales, book covers etc. Record and report on Topics. Create booklets, Adverts, Greetings cards, Invitations, Posters, Labelling etc. Creating a presentation. **Suggested Topics** Myself My Home Homes Elsewhere Homes in the Past My School Life at School – Now and Then. My Environment	Talking Write Away Talking First Word TextEase / Paw Prints Clicker 4 Slideshow Colour Magic Fresco

KEY STAGE	ICT COMPUTER SKILLS COMMUNICATIONS	CURRICULAR ACTIVITIES	SUGGESTED SOFTWARE
LOWER KEY STAGE TWO	Switch on computer and find appropriate software package. • Compose and edit on screen • Highlight text for editing • Change font style/size/colour • Use "select all" element • Format paragraph/document to change its shape • Use text alignment keys for presentation • Copy/cut and paste text/graphic within a piece of writing or from another application • Insert a graphic from clipart • Change graphic position, size • Create a simple presentation(with/without help) • Print and save work	**History** Early Man – create a report on The Hunt, record ways of life, menus, clothing etc. Egyptians – describe the opening of a tomb/an artefact etc Retell an Irish myth/legend as a play/poem etc. **Science** Create adverts/posters to show how healthy eating means a balanced diet. Describe/illustrate/label the life cycle of a frog/butterfly etc Reports on science experiments/discoveries/inventors etc; properties of materials etc. Visual record of changing materials. **Geography** Create a record of a school trip – news sheet/diary etc Report on the development of transport in Ireland Find a suitable way of advertising your area/county/country Create a presentation to illustrate the similarities and differences between 2 countries.	Talking WriteAway Microsoft Word TextEase Paw Prints Clicker Slideshow Powerpoint *CDs* *Internet* *Digital Camera* *Scanner* *Video*
UPPER KEY STAGE TWO	Switch on computer, find appropriate software and retrieve file. • Develop independence in composing and editing • Insert a graphic from another source (clipart disc/topic CD/Internet) • Edit a graphic from another source • Choose appropriate printer settings • Save to a floppy disc • Load from a floppy disc • Develop independence in creating	**History** Vikings – create a saga, what have we learned from the Vikings, describe the Viking way of life, a sea journey, a raid on an Irish Monastery etc. Victorians – create a newspaper with stories and pictures of the Famine, adverts for the New World, etc Create a presentation about the life of a famous person. **Science** Create a labelling game about the main organs of the body. Create a poster/presentation to encourage recycling materials/conserve energy etc. Discover the origins of materials	Microsoft Word Textease Clicker SlideShow PowerPoint *CDs* *Internet* *Digital Camera* *Scanner* *Video*

		and report. Create and describe diagrams of electric circuits. Create instructions for making a model. **<u>Geography</u>** Create a travel brochure for a foreign land using digital photographs/scanned pictures/Internet resources. Give a 2 minute talk with visual resources on a given topic.	
	presentations		

KEY STAGE	ICT COMPUTER SKILLS	CURRICULAR ACTIVITIES	SUGGESTED SOFTWARE

	DATA HANDLING		
LOWER KEY STAGE ONE	• Use concept keyboard/ mouse to select and input simple data. • With teacher's help select graph type (block/pictogram). • Understand information displayed as graph/number box.	*Collect information on various topics (eg. toys, pets, travel to school, eye/hair colour, birthdays) represented by real objects, blocks, pictures.* Graphical representation of collected information. Talk about graph, showing understanding of information. Simple recording ☐ children have blue eyes.	Pick a Picture Counting Pictures 2 Counter My World screens
UPPER KEY STAGE ONE	• Enter gathered information and represent graphically. • Show more independence in selecting graph type. • Extract simple information from graph. • Sort data if required. • Give graph suitable title. • Print and save graph. • Enter information into simple pre-prepared database. • Locate information eg. one record, boys/girls • Represent information graphically as above • Find information on simple CD Rom or given website	Gather information on various topics across the curriculum and represent graphically. Discuss and interpret the data. **Suggested Topics** Myself – eye/hair colour/foot and hand size. My homes – type, number of rooms etc. Materials – colour, shape, flexibility etc. School – travel, favourite lunches etc My environment – types of litter, weather	Counting Pictures 2 Pick a Picture Information Workshop (yellow level) Information Magic First Workshop My World Screens Number Box 2 (quick sheets) Starting graph

KEY STAGE	ICT COMPUTER SKILLS DATA HANDLING	CURRICULAR ACTIVITIES	SUGGESTED SOFTWARE
LOWER KEY STAGE TWO	- Load/save/print work - Collect, classify, record and present data - Create headings for simple database with increasing independence - Represent information graphically and choose from increasing range of graph types - Choose most suitable graph - Search database - 1 criterion and interpret search outcomes - Sort data numerically/alphabetically - Search and access information from CD Rom/Internet with some independence - Use tree diagram to sort/classify using given criteria.	**Suggested Databases:** **Plant and Animal Life** – Local habitat. **People and Places** – Facts about countries etc. **Ourselves** – Personal data, Food facts. **Materials** – Properties of materials. (eg. Texture, strength, flexibility, absorbency, conductor, insulator, transparent, translucent, opaque etc) Changes in materials. **Forces and Energy** – Uses in the home, sources.	Starting Graph Information Workshop Information Magic Number Magic Number Box 2 My World screens Decisions
UPPER KEY STAGE TWO	- Select appropriate software for a particular task - Develop more complex sorts and searches - Copy and paste representations of findings into word processor to interpret - Plan and produce completed investigation with all elements included (booklet with graphs, reports of findings etc.) - Search and access information from CD Rom/Internet with increasing independence - Use Internet search engine to research information on given topic - Use tree diagram to sort/classify selecting own criteria.	**Suggested Spreadsheets:** **Plant and Animal Life** - Rate of growth of plants. **Ourselves** – Effects of activities on pulse rates. **Weather** – local/compare with another country. **Forces and Energy** – Forces experiments (eg. comparison of height, friction on moving model) **Timed experiments** – finding averages, reaction times etc	

MODELLING AND CONTROL

KEY STAGE	ICT COMPUTER SKILLS MODELLING AND CONTROL	CURRICULAR ACTIVITIES	SUGGESTED SOFTWARE
LOWER KEY STAGE ONE	• Move Roamer forwards/backwards • Create simple sequences to move Roamer in given directions • Use arrow keys to move objects on screen up, down, left, right. • Use mouse to explore screen environment	Explore Movement – Simple movements in P.E. etc Follow/give directions from/to a partner. Eg.2 steps forward, 1 step back. Pixie/Roamer – explore movement over grids to reinforce topic work eg, farms, houses, colours. (Make Roamer move to the red square.) Exploration of Number (0-5/0-10):- Recognition, addition, subtraction, estimation with/out number lines. Use arrow keys to move curser/objects around the screen.	Roamer Pixie Animated Alphabet/Number Living Books My World Lets go with Katy (1-3) Turtle
UPPER KEY STAGE ONE	• Make Roamer turn right/left using 1 as a quarter turn etc. • Create sequence of commands involving directions and turns • Becoming more independent in building up sequences to create complete shapes/movements. • Move on-screen turtle using simple commands or keypad • *Create shape/pattern by sequencing commands*	**Addition/Subtraction** Investigate/reinforce concepts of number line/number bonds. Eg. 6+?=11 **Shape and Space** Introduction to a "**corner/right angle**". Investigate concept of turn – $\frac{1}{2}$, $\frac{1}{4}$, turns to left/right. (pre-programme Roamer) Explore concept of simple **2D shape**:- Create a square, rectangle etc. Which shape is Roamer creating? Which command is missing to complete the shape? Floor **Grid Work** – finding your way around a local map, the farm etc. Make a square of side _? Draw a capital letter Eg .E. (with right angles only). Introduction to **right angles** – using 90 degrees Consolidation of regular 2D shapes.	Pixie Roamer Turtle Blackcat Logo (yellow/green levels)

		Introduction to **clockwise/anticlockwise** – ¼ turn clockwise etc. Investigate **4 points of compass**	

KEY STAGE	ICT COMPUTER SKILLS MODELLING AND CONTROL	CURRICULAR ACTIVITIES	SUGGESTED SOFTWARE
LOWER KEY STAGE TWO	• Use simple commands to move onscreen turtle – forward (fd), backwards(bk), right(rt), left(lt) etc. • Create capital letters/patterns/shapes • Use repeat command	Problem Solving Situations (to encourage logical thinking)- Investigate all angle as an amount of turn – eg. Draw a hexagon, equilateral triangle etc. Draw a capital letter eg A, V, (with angles other than 90 degrees). Use clockface to investigate angle. Investigate 8 points of compass. Plan a journey using a local/country/continental/ world map/grid. (Roamer/Roamer World) NEELB Logo Activity cards/Workcards 1-7 – these older materials will give guidance in developing the concepts of Shape and Space, and can be adapted to suit the needs of different classrooms.	Roamer Roamer World Blackcat Logo MSW Logo Crystal Rain Forest
UPPER KEY STAGE TWO	• Use procedure to create shapes/patterns • Save procedures • Edit procedures • Create procedures within other procedures • Save complete projects Use an external device to – • Introduce control commands • Programme input/output devices • Build up more complex	**Art/Craft** Eg. - Create a procedure to draw a square/capital letter, then use this within another procedure to rotate and repeat the shape to create a revolving pattern. Take this into an art package and create a wallpaper. **NEELB Logo Activity Cards/Workcards 8-26** – these older materials will give guidance in developing the concepts of Shape and Space, and can be adapted to suit the needs of different classrooms. More advanced – letters with curves. **Science & Technology**	Roamer World MSW Logo RM Colour Magic Barnet Box Commotion Coco Robolab Microsoft Excel Number Magic Number Box 2

	sequences to make inputs/outputs respond • Enter data into a pre-prepared spreadsheet • Edit the data • Use "what if…?" methods to problem solve • Present information in graphical format	Eg. – Create a sequence for traffic lights. Make the lights in a model house go on/off in sequence. Programme a home-made lighthouse. Make a Lego carousel work. Etc. Create a helpful item for someone who is blind/deaf etc. **Geography** Eg. – collect weather data, with averages and negative temperatures. Data on foreign counties – capital city, money, language, population etc **Science** Data from experiments on distance and height of ramps, friction etc. **Miscellaneous** Collect data from school shop – prices and number sold. Children's test results	Crystal Rain Forest

Access

Pupils in years 4 to 7 have access to ICT in our computer suite which is timetabled for use throughout the week. They also have access to ICT through a Viglen class-based computer and occasionally the teacher's laptop. Some teachers have retained Nimbus 486 computers for additional pupil access.

Pupils in years 1 to 3 do not access the computer suite but have access to two Viglen computers in their classrooms with many teachers retaining two of the Nimbus 386/486 range.

Roamers are available in each year group and are shared according to curricular demands.

We currently have two scanners, one located in the computer suite and the other in a Primary One classroom.

An interactive whiteboard is located in the computer suite and there are plans to purchase another one.

Digital cameras and data projectors are held centrally. All staff have access to overhead projectors which are located in Primary 4 and 7.

Software Progression
Mathematics & Numeracy

	'Numeracy'	Information Handling	Modelling
Primary 1	Thomas the Clown 123 CD Tizzy's Toybox Number Train	Pick a Picture Counting Pictures	Pixie Roamer
Primary 2	Thomas the Clown 123 CD Tizzy's Toybox Number Train Let's Go 1-3	Pick a Picture Counting Pictures	Pixie Roamer Turtle
Primary 3	Number Train Number Works Time & Money Let's Go 1-3 Let's Go 4-7	Counting Pictures Starting Graph (yellow) First Workshop/ Information Workshop (yellow)	Roamer Turtle BlackCat Logo (yellow) RoamerWorld
Primary 4	Number Train Number Works Time & Money Trudy's Time & Place House Let's Go 4-7	Starting Graph (green) Information Workshop (yellow/green) Numberbox ('Quick Sheets')	Roamer Turtle BlackCat Logo (yellow/green) RoamerWorld
Primary 5	Number Works Time & Money Trudy's Time & Place House Let's Go 4-7	Starting Graph (green) Information Workshop (green) Numberbox (yellow/green) Number Magic (yellow/green) Decisions	Roamer BlackCat Logo (green) RoamerWorld MSW Logo
Primary 6	Number Works Let's Go 8-10	Information Workshop (blue/red) Numberbox (blue/red) Number Magic (blue/red) Decisions	Roamer BlackCat Logo (blue/red) RoamerWorld MSW Logo Crystal Rainforest
Primary 7	Number Works Let's Go 8-10	Information Workshop (blue/red) Numberbox (blue/red) Number Magic (blue/red) Decisions	Roamer BlackCat Logo (red) RoamerWorld MSW Logo Crystal Rainforest

Language and Literacy

	'Literacy'	Communication
Primary 1	ABC by Dr Seuss Green Eggs & Ham LetterLand Talking Animated Alphabet Nursery Rhyme Time Tizzy's Toybox	Concept Editor Writer Talking 1st Word (yellow) WriteAway Clicker
Primary 2	ABC by Dr Seuss Green Eggs & Ham LetterLand Talking Animated Alphabet Nursery Rhyme Time Little Monster at School Sheila Rae the Brave Oxford Reading Tree 4 Tizzy's Toybox	Concept Editor Writer Talking 1st Word (yellow) WriteAway Clicker
Primary 3	LetterLand Green Eggs & Ham Little Monster at School Sheila Rae the Brave The Tortoise & the Hare Oxford Reading Tree 5	Clicker Talking 1st Word (green) WriteAway PawPrints (yellow/green)/Textease SlideShow
Primary 4	Little Monster at School Sheila Rae the Brave The Tortoise & the Hare	Clicker Talking 1st Word (green) WriteAway PawPrints (green/blue)/Textease SlideShow
Primary 5	Encarta World Dictionary Wellington Square Young Writers' Workshop	Clicker Talking 1st Word (blue) WriteAway PawPrints (blue)/Textease SlideShow
Primary 6	Encarta World Dictionary Wellington Square Young Writers' Workshop	Clicker Talking 1st Word (blue/red) WriteAway PawPrints (red)/Textease SlideShow
Primary 7	Encarta World Dictionary Wellington Square Young Writers' Workshop	Clicker Talking 1st Word (red) WriteAway Microsoft Word PawPrints(red)/Textease

		SlideShow/Microsoft PowerPoint Microsoft Publisher

The World Around Us

	Science	Geography/ History/ Reference
Primary 1	My World 3 Through my Window	My World 3
Primary 2	My World 3 Through my Window	My World 3 Let's Go 1-3
Primary 3	My World 3 Through my Window Sammy's Science House	My World 3 Oxford Infant Talking Atlas Let's Go 1-3 Let's Go 4-7
Primary 4	My World 3 Through my Window Sammy's Science House I Love Science	My World 3 Trudy's Time & Place House Oxford Infant Talking Atlas The Map Detectives British Isles Explorer Let's Go 4-7
Primary 5	My World 3 Through my Window I Love Science	My World 3 Oxford Infant Talking Atlas British Isles Explorer The Map Detectives Encarta Encyclopaedia 2001 Encarta World Atlas 2001 Let's Go 4-7
Primary 6	My World 3 Through my Window I Love Science	My World 3 World Explorer The Map Detectives Encarta Encyclopaedia 2001 Encarta World Atlas 2001 Let's Go 8-10 Egyptians
Primary 7	My World 3 Through my Window I Love Science	My World 3 World Explorer The Map Detectives Encarta Encyclopaedia 2001 Encarta World Atlas 2001 Let's Go 8-10 Egyptians

ICT IN NUMERACY

PROGRAMME OF STUDY FOR MATHEMATICS

GENERAL REQUIREMENTS

Pupils should be given opportunities, where appropriate, to develop and apply their knowledge, skills and understanding of information technology. They should use calculators to explore, through play and number games how a calculator works and how it can be used as a tool for calculating with realistic data. They should use the computer to support and enhance their mathematical programme, with simple databases and programmable devices being introduced, where appropriate.

SHAPE AND SPACE

Position, movement and direction
Pupils should have opportunities to:

- **Use programmable devices to explore movement and direction.**

HANDLING DATA

Pupils should have opportunities to:

- **Collect data and record it, using real objects or drawings and talk about the outcome; progress to recording data in a range of ways, including simple pictograms, block graphs, bar charts, mapping diagrams and frequency tables; read and interpret the data.**

- **Help to design an observation sheet and use it to record a set of data leading to a frequency table; collate and analyse the results.**

- **Extract information from an increasing range of charts, diagrams and tables; enter and access information in a simple database; be introduced to a computer database.**

The main areas where ICT is used in mathematics are;

- **Information handling**
- **Modelling**
- **Measurement and Control**

ICT IN LITERACY

Programme of study for English

TALKING AND LISTENING

GENERAL REQUIREMENTS

Pupils should have opportunities to use technology to communicate when and where it is appropriate.

INFORMATION TECHNOLOGY

Pupils should be given opportunities, where appropriate, to develop and apply their knowledge, understanding and skills of information technology and in particular to record and listen to recordings of their own speech and others, for example on a tape recording.

READING

INFORMATION TECHNOLOGY

Pupils should be given opportunities, where appropriate, to develop and apply their knowledge, skills and understanding of information technology and in particular to search for and find information using a computer.

RANGE

Pupils should be given opportunities to engage with a range of texts, including:
- Information material, for example, reference books, textbooks, brochures, information leaflets, dictionaries, atlases, encyclopaedias and CDROMS.
- Environmental print, for example, road signs, labels, notices
- Audio, visual and audio-visual materials.

READING ACTIVITIES

Pupils should be given opportunities to engage in a wide range of reading activities, including:
- Listening to, and understanding, a range of texts, which are read aloud, including those, presented on tape, radio, television and computer.
- Make use of picture dictionaries, personal word banks, dictionaries, information books and data on the computer for reading and writing and learn to use lists of contents and indexes.
- Collect information relevant to specific purposes from books, computers and other sources and represent their findings in a variety of ways.

WRITING

The classroom should actively facilitate writing. Pupils should have access to:
- A variety of writing tools, including word processors, dictionaries and thesauri.

INFORMATION TECHNOLOGY

Pupils should be given opportunities, where appropriate, to develop and apply their knowledge, skills and understanding of information technology and in particular to use pictures, phrases and words to communicate and to create their own short sequences of pictures, words and sounds.

Writing will arise from a variety of experiences including software packages.

WHY USE ICT

Word processing to be used as a compositional tool as well as a presentation tool.

Word processing skills will reinforce necessary steps of language development – grammar, spelling, sentence structure, punctuation and paragraphs.

Enhances children's confidence – non-threatening environment.

Social skills - taking turns, working with others, contributing to the group.

Brings teaching into the 21st century.

Provides motivation and enjoyment particularly for boys.

Allows focus on higher order skills.

Pupils see writing as a process – not just in terms of finished product.

Pupils have control over the process.

Provides an ideal medium for collaborative work.

Pupils can access live information- they are actively seeking not passive recipients.

Access to potentially worldwide audience- gives an increased sense of purpose for writing.

WORD PROCESSING SKILLS

These include:
- Capital letters – caps lock and Shift.
- Delete button, space bar and return.
- Punctuation marks with shift.
- Editing – add and delete letters/words.

- Icons and functions.
- Size
- Font.
- Colour.
- Style – bold, italic, underline.
- Frames and borders/backgrounds.
- Inserting graphics.
- Use of spellchecker, word banks, thesauri.
- Save and print.

ICT IN DEVELOPING LITERACY

WRITING KS1 and KS2

Word processing – compositional skills. Use of the concept keyboard.

Make and shape text to communicate meaning.

Working in groups.

Set defined tasks – purpose.

Audience – display, printing out copies of completed articles, copies to take home, class books, newsletters, publications, email to other people, external competitions.

Modelled writing – teachers should work with groups working at the computer. Children should see that the teacher uses the computer to make worksheets, booklets and notes for home.

Writing will take a variety of forms – labels, greeting cards, lists, invitations, letters, recipes and menus.

Internet

The school has internet access in every classroom. Any use of the Internet will be strictly in accordance with the school's Internet Policy. All staff and pupils have

Monitoring & Evaluating SDP 2005/6 Self evaluation matrix

Teachers maintain records for every child containing evidence of progress in each of the four strands of ICT. (Communication, Information Handling, Modelling and Control). Samples of children's work are maintained as evidence.

Children complete self-assessment records at the end of each stage.

It our intention to use CCEA Accreditation in Key Stage 2 in the school year2005/06 to formally assess children's ICT skills across the four strands. They receive accreditation at the end of KS2.

Staff Development

All staff have had access to NOF training opportunities, however the continued development of ICT capability is very important. Key Stage 2 teachers received inset from our school based ICT teacher during a six week project through empowering schools initiative. Opportunities for further professional development of staff will be provided.