for Early years
EYFS & KS1

Lancashire
County
Council

ICT Progression
EYFS and KS1

Lancashire Schools' ICT Centre

ICTProgression

The following materials have been produced in order to help and support Early Years Foundation Stage and Key Stage 1 practitioners using ICT within the EYFS and KS1 curriculum.

The materials have been designed to show how the 9 elements of ICT (see contents below) taught throughout the primary phase, can also be introduced within the EYFS Framework.

Although the only reference to ICT within the EYFS Framework is in the Early Learning Goal (ELG) Knowledge and Understanding of the World, there are a range of practical ways in which the 9 elements of ICT (see content list) can be used to support all ELGs.

In order to help with ideas, an additional planning grid combining both the ELGs and the ICT progressions provides suggestions of activities, and links to support materials.

The grid is available on the LGfL website at: www.lancsngfl.ac.uk/short/eyfsictprogression

Contents

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Rosegrove Nursery Burnley

St John's Catholic Primary School Poulton-le-Fylde

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Text and Multimedia

Foundation Stage	Early (KS1)

Skills

Foundation Stage

- Develop mouse control through simple activities on-screen including click-and-drag, drag-and-drop.

- Begin to use a keyboard and develop familiarity with letters, numbers, backspace (to delete), arrow keys and space bar.

- Use a keyboard in play writing.

- Use an interactive whiteboard for mark-making.

- Explore using a combination of images, sound and text.

- Explore changing text size, style and colour (with appropriate simple software).

- Use templates to make simple labels.

- Interact and respond to a range of ICT stimuli, including media and ICT texts.

- Print out work, using appropriate software.

Early (KS1)

- Continue to develop correct use of the keyboard, including the spacebar, backspace, delete, shift (for capital letters – not caps lock) and enter keys.

- Begin to use both hands for typing.

- Select appropriate images to add to work.

- Select or record sounds to add to work.

- Add captions to photographs and graphics.

- Word process short texts, working directly at the computer rather than 'copying up' written work.

- Make use of graphics, video and sound to enhance text in multimedia work.

- Navigate around text in a variety of ways (mouse, arrow keys) when editing work.

- Select text using an appropriate method, e.g., highlighting or clicking text to select.

- Make simple changes to selected text, e.g., colour, style and size.

- Create simple presentations for different purposes using templates for support.

- Select text from word lists (if necessary).

- Save, print, retrieve and amend work.

Knowledge and Awareness

Foundation Stage

- Be aware that text and images on a computer can be printed out.

- Be aware that text comes in different colours, sizes and styles.

- Be aware that they can interact with multimedia software to make something happen on screen.

- Begin to understand that ICT can be used to communicate through text, images and sound.

- Be aware that a keyboard and mouse are tools for communicating with a computer

- Know how to use simple tools on an interactive whiteboard, e.g., software and pen tools.

Early (KS1)

- Know that text can be different colours, sizes and styles and these can easily be changed.

- Know that multimedia includes sound, text and graphics.

- Know that ICT can be used to communicate ideas in different ways, e.g. text, images, tables and sound.

- Talk about their use of text, graphics and sound, including how the mood of a piece can easily be changed.

- Begin to understand that images, sounds, and text can be subject to copyright.

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Images, Video and Animation

Foundation Stage	Early (KS1)

Skills

Graphics (Drawing and Painting)

Use a paint program or interactive whiteboard software to make marks using simple tools, including changing brushes, fill, colour, and stamps, to communicate their ideas.

Digital Photographs, Video and Animation

Interact and explore their environment using multimedia equipment, including digital cameras, video cameras, microscopes, webcams and visualisers to capture still and moving images.

With help, play back captured still or moving images, becoming familiar with the control buttons, e.g., using play, stop and pause.

Use a program that allows children to select objects and animate them.

Graphics (Drawing and Painting)

Refine the use of shape, line and colour to communicate a specific idea or artistic style/effect through various tools; including brushes, pens, lines, flood fill, spray and stamps.

Use ICT to source, generate and amend ideas for their work, e.g., searching the Internet for images by a specific artist.

Begin to use paint packages or photo-manipulation software to edit/change an image, e.g., cropping.

Save, print, retrieve and amend their work.

Digital Photographs, Video and Animation

Use a range of digital devices to capture and save both still and moving images. These could include digital cameras, video cameras, microscopes and webcams.

Upload images or movies from cameras and other digital devices to a computer, with support if needed.

Begin to make changes to images using basic tools in image manipulation software.

Create a sequence of images to form a short animation.

Knowledge and Awareness

Be aware that marks can be made on screen as well as paper and that a range of tools can be used to change the effects.

Be aware that there are various ways of capturing still and moving images.

Be aware that still and moving digital images can be transferred to the computer, saved and reviewed.

Be aware that still objects can be animated using the computer.

Understand the differences between a graphics package and paper based art activities.

Understand there are a variety of tools in a graphics package, each fulfilling a different purpose.

Talk about their use of a graphics package and their choice of tools.

Know that there are various ways of capturing still and moving images.

Understand the need to frame an image or scene and keep the camera still.

Understand that animation is a sequence of still images.

Understand that some software packages enable images to be animated.

Understand the need for caution when using the Internet to search for images and what to do if they find unsuitable images (See school's Acceptable Use Policy/AUP).

Know how to take images appropriately and responsibly (See school's Acceptable Use Policy/AUP).

Sound

Foundation Stage	Early (KS1)

Skills

Foundation Stage

- Explore ways of making and listening to sounds using simple programs and devices, e.g., karaoke machines, music mats and piano keyboards.

- With help, use buttons to play back sounds on a computer and a sound player.

- Record sounds and speech using a microphone and computer or a recording device, e.g., talking tins, recording pens, talking postcards.

- Choose pre-recorded sounds within a piece of software.

- Experiment with pitch and sound using simple programs and tools.

Early (KS1)

- Explore a range of electronic music and sound devices and software.

- Be able to select and listen to a sound from a bank of pre-recorded sounds.

- Use sound recorders, both at and away from the computer, to record and playback sounds, e.g., voices, instruments, environmental sounds.

- Use software to explore and create sound and musical phrases for a purpose.

- Use basic editing tools to change recorded sounds (speed up, slow down, reverse, echo) to alter the mood or atmosphere of their work.

- Use recorded sound files in other software applications.

- Be able to save sound files.

- Be able to share recordings with a known audience.

Knowledge and Awareness

Foundation Stage

- Be aware that computers and other devices can be used to record and play back sounds.

- Be aware that sound can be recorded on a computer or a sound device.

- Be aware that a range of ICT software and equipment can be used to select, control and change sounds.

Early (KS1)

- Understand that most devices have stop, record and playback functions.

- Be aware that sound can be recorded and stored on the computer as a sound file.

- Begin to understand that sounds and music can be subject to copyright.

5

Electronic Communication

Foundation Stage | Early (KS1)

Skills

Foundation Stage

- Use different forms of electronic communication in free play, e.g., email, mobile phones, hand-held devices, walkie-talkies, sound recording devices.
- Explore simple web-based communication tools with adult support, e.g., on the VLE (Moodle).
- Participate in simple video conferencing and webcam activities with adult help.

Early (KS1)

- Contribute ideas to class and group emails.
- Send an email, using a subject heading, to a known member of the school community, e.g., another class, teacher, bursar.
- Open and reply to an email from a known person.
- Contribute to a blog, journal or forum on the school's VLE (Moodle).
- Develop an awareness of appropriate language to use in email and other forms of digital communication.
- Begin to use webcams and /or video conferencing as a class, if appropriate and available, e.g., with external providers, another class or school.
- Know what to do and who to tell if they see something inappropriate online, e.g., how to minimise a screen, turn the monitor off, use back buttons to return to the home page or the 'Hector Protector' screen so that they can keep safe, according to school's eSafety policies and procedures /AUP.

Knowledge and Awareness

Foundation Stage

- Be aware of the use of different forms of electronic communication via teacher-led activities and free play, e.g., sending an email to another class.
- Be aware that the VLE (Moodle) can be used for communication.
- Be aware that there is a range of ICT tools for communicating, e.g., webcams, text and email.

Early (KS1)

- Understand that messages can quickly be sent electronically over distances and that people can reply to them.
- Understand that an email has to be sent to a unique email address and the need for accuracy in typing the address.
- Understand that some emails may be malicious or inappropriate and begin to recognise when an attachment may be unsafe to open.
- Understand the different ways that messages can be sent, e.g., email, text messages, letter, phone, VLE (Moodle) forum and Begin to consider the advantages of each one.
- Understand that messages can be in the form of pictures, sound and/or text.
- oo Understand that personal information, e.g., email address, usernames, passwords, home address or telephone number should not be shared, either online or offline, without a trusted adult's permission.
- Recognise situations where they don't feel safe, e.g., 'scary' emails, text messages or contact from an unfamiliar person and know to ask a trusted adult for help – according to school's eSafety policies and procedures /AUP.
- Know that they should not ask to meet anybody from the online world in the offline world.
- Know that they should tell a trusted adult immediately if they are asked to meet somebody from the online world in the offline world.
- Talk openly about their use use of online communication in school and at home
- Know and abide by the school's rules for keeping safe online.

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Digital Research

Foundation Stage	Early (KS1)

Skills

Foundation Stage

- Use a shortcut such as an icon on the desktop to navigate to a specific website.

- Explore a teacher-selected website or CD ROM to find a desired page, using hyperlinks and navigation buttons.

Early (KS1)

- Use and explore appropriate buttons, arrows, menus and hyperlinks to navigate teacher selected web sites, VLE(Moodle), CD ROMs and other sources of stored information.

- Using key words search a specific resource for information, e.g., Espresso and other websites, under the guidance and supervision of an adult.

- Locate specific, teacher defined, age appropriate websites through a favourites menu and /or by typing a website address (URL) into the address bar in a web browser.

- Begin to evaluate web sites by giving opinions about preferred or most useful sites.

- Know what to do and who to tell if they see something inappropriate on a website, e.g., how to minimise a screen, turn the monitor off, use back buttons to return to the home page or the 'Hector Protector' screen so that they can keep safe, according to school's eSafety policies and procedures /AUP.

Knowledge and Awareness

Foundation Stage

- Be aware that ICT sources, e.g., Espresso, Moodle, and the Internet can be used to find things out.

- Be aware that information can be in different forms, e.g., video, pictures and sound, as well as text.

- Be aware of what to do if they see something they do not like on a website, e.g., how to turn the monitor off, tell an adult, use back buttons to return to the home page, or use the 'Hector Protector' screen.

Early (KS1)

- Understand that ICT can give rapid access to a wide variety of information and resources, including internet, TV, DVDs.

- Talk about their use of ICT and other ways of finding information, e.g., books.

- Understand that different forms of information, e.g., text, images, sound, multimedia, exist and that some are more useful for specific purposes than others.

- Understand and discuss how information can be obtained and used to answer specific questions.

- Understand a website has a unique address and the need for precision when typing it.

- Begin to understand that not everything on the internet may be true, e.g., spoof websites.

- Be aware that they can be accidently diverted from websites through a link to a new website, advertising or pop-ups.

- Know that they should ignore any pop-ups and tell a trusted adult, who will take appropriate action to close them safely.

eSafety
*Ensure t*hat the computer screen is always viewable by an adult when a child is online. It is better to deal with incidents as and when they occur. Staying safe online could be dealt with in circle time.

Datahandling

Foundation Stage	Early (KS1)

Skills

Foundation Stage

- Collect information, e.g., by taking photographs or collecting objects.

- Begin to sort, classify or group various objects progressing from practical activities to the use of ICT, e.g., practically sorting fruit into colours, types or shapes, and then on-screen.

- Use ICT to sort and sequence objects on a screen or interactive whiteboard.

- Produce simple pictograms with help.

Early (KS1)

- Develop classification skills by carrying out sorting activities (practically and on the IWB) which may include the use of online Carroll or Venn diagrams.

- Use simple graphing software to produce pictograms and other basic tables or graphs.

- Use graphing software to enter data and change a graph type, e.g., pictogram to bar chart.

- Interpret and draw conclusions from graphs, discuss information contained and answer simple questions.

- Sort and classify a group of items by asking simple yes / no questions. This may take place away from the computer, e.g., a 'Guess Who' game.

- Use a branching database program, where appropriate, to sort and identify items.

- Use basic search tools in a prepared database to answer simple questions, e.g., how many children have brown hair?

- Save, retrieve and edit their work.

Knowledge and Awareness

Foundation Stage

- Be aware that information can be sorted both practically and by using a computer program.

- Have an awareness of how a computer allows:

    objects to be moved around easily on screen

    changes to be made easily

    changes to be saved

    information to be revisited at another time and changes made.

Early (KS1)

- Understand that ICT can be used to sort items and information.

- Understand that ICT can be used to create, display, add to and change graphs quite easily.

- Begin to understand that unless data has been entered accurately it cannot be used to provide correct answers to questions.

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Datalogging

Foundation Stage	Early (KS1)

Skills

At this stage, children should be made aware of everyday devices that sense data, e.g., bar codes, metal detectors, simple sound recorders, automatic doors, light sensors, stick-on thermometer strips.

Participate in whole class demonstrations on an interactive whiteboard using a data logger and monitoring live data, e.g., changing sound levels over time.

Develop an awareness of datalogging through the use of various peripheral devices, e.g., thermometers, microscopes and microphones.

Knowledge and Awareness

Be aware that digital devices e.g., thermometers, metal detectors, and sound monitors can be used to show external changes.

Be aware that digital devices, e.g., thermometers, microscopes and microphones can be used to show external changes.

http://www.lancsngfl.ac.uk/short/eyfsictprogression

Logo and Control

Foundation Stage	Early (KS1)

Skills

Foundation Stage

- Use a variety of electronic toys in play situations, e.g., dance mats, Bee-Bots, and remote control toys, using basic directional language.

- Explore toys that simulate control devices e.g., traffic lights, scanner, microwave, cash tills, with the intention of finding out how it works.

- Explore the commands needed to control a range of electronic toys.

- Control simple games on-screen using the arrow keys.

Early (KS1)

- Give and follow commands (one at a time) to navigate other children and programmable toys around a course or a familiar journey, including straight and turning movements.

- Plan, generate and follow a sequence of commands (actual and on-screen) to complete a given task or problem.

- Explore and create a sequence of commands to reproduce a simple geometric shape or pattern on screen.

- Make predictions when controlling devices and describe the effects.

- Make changes to improve

Knowledge and Awareness

Foundation Stage

- Be aware that some devices need commands to operate and control them, e.g., traffic lights, car park barrier, games consoles.

- Understand what commands are needed to control different devices, e.g., make a noise to activate a toy; press a button to make it work.

- Be aware that the computer keyboard can be used to control objects on screen.

Early (KS1)

- Understand that devices respond to commands.

- Talk about devices in the home that are controlled by commands.

- Understand that prediction, trial and error are important considerations when controlling movement to achieve a specific outcome.

- Understand that there are different ways to create or produce a sequence of commands, including verbal, recorded, graphical, pressing buttons and on screen methods.

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Simulations and Modelling

Foundation Stage	Early (KS1)

Skills

Foundation Stage

- (SM) Compare real life and virtual situations, e.g., colour in a shape, dress teddy.

- (SM) Explore simple simulations and find out 'what happens if…'

Early (KS1)

- (SM) Explore simulations of real and virtual environments in other curriculum areas, e.g., BBC science clips, virtual plants and pets.

- (SM) Make informed choices when exploring what happens in a simulation.

- (SM) Talk about the rules found in simulations.

Knowledge and Awareness

Foundation Stage

- (SM) Begin to understand that computers can represent real or imaginary situations.

- (SM) Be aware that different choices made using a program on the computer can produce different outcomes.

- (SM) Be aware that computers can make imaginary things happen on-screen, which may not happen in everyday life.

Early (KS1)

- (SM) Understand computer simulations can represent real and virtual environments.

- (SM) Discuss use of simulations and compare with reality, e.g., a simulation of a science investigation.

- (SM) Understand that computer simulations allow the user to explore options and make choices, recognising that different decisions produce different outcomes.