

Computing Skills Progression

Foundation Stage

Learning about technology starts from birth because it's the way the world works today. Technology is an integral part of all young children's environment and world. They are surrounded by technology just as they are surrounded by language, print and numbers. In the home, technology includes remote controls for television, DVDs and sound systems, toys that have buttons and buzzers, mobile phones, washing machines, microwave ovens and other machines that require programming, and of course, computers and mobile devices such as iPads. Outside the home, children are also immersed in the technological world: they see automatic doors, cash machines, bar code scanners, digital tills and weighing machines, and security cameras. Technology is something children are going to grow up with, learn about and master, and use as a tool to increase their understanding in all areas of learning.

Many activities in the early years revolve around children developing an understanding of their environment. Settings encourage children to explore, observe, solve problems, predict, discuss and consider. ICT resources can provide tools for using these skills as well as being examined in their own right, with computers not the only resources. ICT equipment added to role-play reflects the real world, builds on children's experiences and allows them opportunities to understand how, why, when and where different forms of technology are used in everyday life.

Early experiences form a foundation upon which KS1 and KS2 can build and the current early learning goals have specific objectives relating to ICT.

By the end of the Foundation Stage most children will:

- *Show an interest in ICT*
- *Know how to operate simple equipment*
- *Complete a simple program on the computer and / or perform simple functions on ICT equipment*
- *Find out about and identify the uses of everyday technology and use information and communication toys to support their learning.*

	Year 1 / 2	Year 3 / 4	Year 5 / 6
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Blue- Year 1/2, **Yellow-** Year 1, **Green-** Year 2

Multimedia

1. Use ICT to generate ideas for their work.
2. Use various tools such as brushes, pens, rubber, stamps, shapes.
3. Save and retrieve work.

Text

1. Use spacebar, backspace, delete, arrow keys, return.
2. Start to use two hands when typing.

Sound recording

1. Record sound at and away from a computer.
2. Use software to record sounds.

Animation/Photo/Video

1. Capture and edit video and photos and arrange to create a short clip/photo story or green screen
2. Plan what they would like to happen in their animation. Take a series of pictures to form an animation.
3. Move items within their animation to create movement on playback.
4. Edit and improve their animation. (I Can animate)
5. Make an image come alive using animation (morfo)

Presentation

1. Choose a suitable subject and collect some information.
2. Present the information to a group.

Blue- Year 3/4, **Yellow-** Year 3, **Green-** Year 4

Multimedia

1. Acquire, store and combine images from cameras or the internet for a purpose.
2. Select certain areas of an image and resize, rotate and invert the image.
3. Edit pictures using a range of tools in a graphics program.
4. Combine graphics, text and sounds.

Book Creator

1. Create a new book aimed at a target audience.
2. Combine text, images and sound on each page.
3. Add information about the author and title for publishing.

Text

1. Get quicker at typing with both hands.
2. Use a variety of font sizes, styles and colours.
3. Align text left, right and centre.

Presentation (Powerpoint)

1. Create a title slide and choose a style. Change the layout of a slide.
2. Insert a picture/text/graph from the Internet or personal files. Decide upon and use effective transitions.
3. Be able to insert internal hyperlinks
4. Create a QR code quiz for others to play

Blue- Year 5/6, **Yellow-** Year 5, **Green-** Year 6

Sound Recording (Podcast- Garage band)

1. Create a multi-track recording using effects.
2. Edit and refine their work to improve outcomes.
3. Change sounds recorded.
4. Save, retrieve and edit sounds.
5. Share the finished sound file to an online space (sound cloud)

Multimedia

1. Using text, image and video as part of creating their own website
2. Use graphic design software to create a multimedia resource (e.g. brochure, flyer, poster)

Video (iMovie trailer)

1. Storyboard and capture videos for a purpose.
2. Export their video.
3. Choose which clips to keep and which to discard.
4. Trim and arrange clips to convey meaning.
5. Add titles, credits, slide transitions, special effects.

Presentation

1. Work independently to create a multi slide presentation that includes speakers notes.
2. Use transitions and animations to improve the quality of the presentation.
3. Include sounds and moving graphics in the slides.
4. Present to a large group or class using the notes made.



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Data

1. Know that images give information.
2. Put data into a program.
3. Sort objects and pictures into lists or simple tables.

Algorithms

1. Give a set of simple instructions to follow out a task.
2. Read and write simple algorithms for a partner to carry out
3. Explore what happens when a sequence of instructions is given.
4. Give commands including straight forwards / backwards / turn one at a time (Beebots).
5. Improve/change their sequence of commands.
6. Understand the process of debugging as being able to find and

Internet research

1. Talk about websites they have been on.
2. Explore a website by clicking on the arrows, menus and hyperlinks.
3. Make decisions about whether or not statements found on the internet are true or not.
4. Identify devices that can be used to search the Internet.

Data

1. Choose information to put into a data table.
2. Recognise which information is suitable for their topic.
3. Create an online poll
4. sort and organize information
5. create a database from information I have selected.

Scratch

1. Navigate the Scratch programming environment. Create a background and a sprite for an animation.
2. Write an algorithm in the format or a storyboard
3. Use sequence within programming (putting blocks of code into correctly ordered steps)
4. Use repetition within programming (e.g. using the repetition or forever loop)
5. Debug code

Programming

1. Knowing which algorithms are the most efficient to use
2. Use logical reasoning to explain how simple algorithms work

The Internet

1. Understand how the internet and the world wide works and that the two things are not the same.

Data

1. Understand that changing the numerical data effects a calculation.
2. Create data collection forms and enter data accurately from these.
3. Know how to check for and spot inaccurate data.
4. Know which formulas to use when I want to change my spreadsheet model.
5. Sort and filter information

Scratch

1. Use external triggers and infinite loops to control sprites. Create and edit variables.
2. Use conditional statements within the program to control the sprite (if...then..)
3. Design their own game including sprites, backgrounds, scoring and/or timers.
4. Use conditional statements, loops, variables and broadcast messages in the game.
5. The game finishes when a player wins or loses and they must know they have won or lost.
6. Evaluate the effectiveness of the game and debug as required.

Text based programming

5. Know how to write code using a text based language (e.g. Python, html).

Responsible use

1. Identify what things count as personal information.
2. Identify when inappropriate content is accessed and act appropriately.
3. Recognise that a variety of devices can be used to connect a number of people.
4. Consider other people's feelings when communicating on the Internet.
5. Know how to communicate appropriately using an online platform (Edmodo, seesaw)
6. Knowing that they permission to use other peoples work and images
7. Tell an adult if anything worries them online.

See-Saw

Being able to share work to an online journal

Blogging

1. Navigate to view their class blog.
2. Share work to class blog
3. Comment on their class blog.

Internet research

1. Understanding how search technologies work
2. Type in a URL to find a website.
3. Understand what the different parts of a URL mean
4. Use a search engine effectively to find a range of media, e.g. images, texts
5. Think of search terms to use linked with questions they wish to answer.
6. Talk about the reliability of information on the Internet, e.g. the difference between fact and opinion.

Responsible Use

1. Question the 'validity' of what they see on the internet.
2. Think before sending and comment on consequences of sending/posting.
3. Recognise online behaviours that would be unfair.
4. Recognise social networking sites and social networking features built into other things (such as online games and handheld games consoles)
5. Make judgments in order to stay safe, whilst communicating with others online.
6. Identify dangers when presented with scenarios, social networking profiles etc.
7. Articulate examples of good and bad

Internet Research

1. Use advance search functions in Google (quotations).
2. Understand websites such as Wikipedia are made by users (link to E-Safety).
3. Use strategies to check the reliability of information (cross check with another source such as books).
4. Use their knowledge of domain names to aid their judgment of the validity of websites.

Websites/Blogging

1. Alter the theme and appearance of their blog/website, adding background images etc.
2. Embed photos, hyperlinks and videos into webpages

Responsible Use

1. Be a good online citizen and friend.
2. Articulate what constitutes good behavior online.
3. Know what to do if something concerns them online
4. Click-CEOP button and explain to parents what it is for.
5. Discuss scenarios involving online risk.
6. State the source of information found on the Internet. Act as a role model for younger pupils.
7. Know how to choose secure passwords and keep them safe
8. Being able to identify what is real and what is a scam
9. Knowing age restrictions for common platforms and apps
10. Knowing the benefits and risks of using technology

behavior online.



