



St James' Church of England Primary School



What Subject Leaders Need to Know

EYFS Computing

The EYFS framework is structured very differently to the national curriculum as it is organised across seven areas of learning rather than subject areas. The aim of this document is to help subject leaders to understand how the skills taught across EYFS feed into national curriculum subjects.

This document demonstrates which statements from the 2020 Development Matters are prerequisite skills for computing within the national curriculum. The table below outlines the most relevant statements taken from the Early Learning Goals in the EYFS statutory framework and the Development Matters age ranges for Three and Four-Year-Olds and Reception to match the programme of study for computing.

The most relevant statements for computing are taken from the following areas of learning:

- Personal, Social and Emotional Development
- Physical Development
- Understanding the World
- Expressive Arts and Design

In planning and guiding what children learn, practitioners must reflect on the different rates at which children are developing and adjust their practice appropriately, referring to the Characteristics of Effective Teaching and Learning

These are: **playing and exploring** – children investigate and experience things, and ‘have a go’; **active learning** – children concentrate and keep on trying if they encounter difficulties, and enjoy their achievements for their own sake; **creating and thinking critically** – children have and develop their own ideas, make links between ideas, and develop strategies for doing things.

In addition, the Prime Areas of Learning (Personal, Social and Emotional Development, Communication and Language and Physical Development) underpin and are an integral part of children’s learning in all areas

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|---|--|-------------------------|--|
| Three and Four-Year-Olds (Nursery) | Personal, Social and Emotional Development | | <ul style="list-style-type: none"> • Remember rules without needing an adult to remind them. |
| | Physical Development | | <ul style="list-style-type: none"> • Match their developing physical skills to tasks and activities in the setting. |
| | Understanding the World | | <ul style="list-style-type: none"> • Explore how things work. |
| Reception | Personal, Social and Emotional Development | | <ul style="list-style-type: none"> • Show resilience and perseverance in the face of a challenge. • Know and talk about the different factors that support their overall health and wellbeing: <ul style="list-style-type: none"> • - sensible amounts of ‘screen time’. |
| | Physical Development | | <ul style="list-style-type: none"> • Develop their small motor skills so that they can use a range of tools competently, safely and confidently. |
| | Expressive Arts and Design | | <ul style="list-style-type: none"> • Explore, use and refine a variety of artistic effects to express their ideas and feelings. |
| ELG (On track – meeting ARE) | Personal, Social and Emotional Development | Managing Self | <ul style="list-style-type: none"> • Be confident to try new activities and show independence, resilience and perseverance in the face of challenge. • Explain the reasons for rules, know right from wrong and try to behave accordingly. |
| | Expressive Arts and Design | Creating with Materials | <ul style="list-style-type: none"> • Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. |

EYFS End Points:

Personal, Social and Emotional Development

Children can wait a short amount of time for something that they want.

Children show confidence completing familiar tasks independently and with support will try new things.

Children can select tools and resources that they need to complete a task of their own choosing.

Physical Development

Children can use an iPad or tablet appropriately. They can use their fingers on a touch screen, and control a mouse/touchpad on a computer.

Understanding the World

Children can use a camera.

Children can do the basics with technology.

Children can select and use technology for particular purposes.

Computing Skills

Essential

Age appropriate skills for the use of core devices and applications within their setting.

Children can use a camera.

Computer Science

Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions. Create and debug simple programs. Use logical reasoning to predict the behaviour of simple programs.

Children can explain sequencing.

Children can explain an algorithm.

Children can give instructions to a programmable toy.

Information Technology

Use technology purposefully to create, organise, store, manipulate and retrieve digital content.

Children can do the basics with technology.

Children can select and use technology for particular purposes.

Digital Literacy

Recognise common uses of information technology beyond school. 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 or other online technologies.

Children can use a search engine.

Children can discuss the rules for staying safe online.

Children know online content is made and belongs to someone.

Children can discuss the use of technology in the world around me.

Children can use a search engine.

Computing Enquiry (also linked to CofETL)

- Provide children with frequent opportunities for exploring a range of technology.
- Encourage use of technology for a range of purposes.

Assessment

I can paint with an app.

I can take a good photo.

I can scan a QR code.

I know my technology.

Vocabulary

Algorithm: Steps to follow to achieve a task.

Application (App): A program (such as a word processor or a spreadsheet) that performs one of the important tasks for which a computer is used

Button: In computing, the term button refers to any graphical control element that provides the user a simple way to trigger an event.

Camera: A digital camera is a hardware device that takes photographs and stores the image as data on a memory card.

Computer: A device that takes input, processes it, then produces output.

Control: In general, control refers to the ability to manage, organise, or run something on a computer.

Emoticon / Emoji: The use of icons or text to portray mood or facial expression, e.g. :) when happy and :(when sad.

Google: Is one of a number of search engines that help us find information on the web.

Information: Data processed and/or presented to users in a meaningful way.

Instructions: Computer instructions are a set of steps.

Internet: The global collection of computer networks and their connections, all using shared protocols (TCP/IP) to communicate.

iPad/tablet: The iPad and tablets are a type of hand held computer.

Keyboard: A board of keys. One of the primary input devices used with a computer.

Printer: A printer is an external hardware output device that takes the electronic data stored on a computer or other device and generates a hard copy of it.

QR Code: A QR code (short for "quick response" code) is a type of barcode that contains a matrix of dots. It can be scanned using a QR scanner or a smartphone with built-in camera.

Robot: Robots have a reprogrammable brain (a computer) that moves a body.

Save: Save is the process of writing data to a storage medium, such as a floppy disk, CD-R, USB flash drive, or hard drive.

Sequence: A set of instructions that are followed in order.

Share: Sharing is the practice of sharing or offering access to digital information or resources, including documents, multimedia (audio/video), graphics, computer programs, images and e-books.

Technology: Technology is the skills, methods, and processes used to achieve goals.

Zoom: To cause text or other graphics in a window or frame to appear larger on the screen.

Key Questions – provide opportunities to develop curiosity, where adults can model questions and children can ask questions.

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| <p><i>What is it like?</i> Can you show me...? Can you tell me about...? Can you tell me which...? Can you describe...? <i>What's happening?</i> What's happening here? What happens when you...? Can you tell me what...? How does that work? What did you notice when you...? <i>Compare and contrast:</i> What is the same about...? What is different...? Which ones...?</p> | <p><i>Why it happened?</i> Why did...? Why do you think...? Why do you think... is happening/happened? Can you tell me why...? Tell me why...?</p> | <p><i>What could we do next?</i> I wonder if...? What if...? What will happen if we...? How can you make...? How can you show...? How could we find out if...? Can you find another way that will...? Can you think of another way...? How could we improve...? Can you create/invent/design...?</p> |
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Areas of Continuous Provision

Continuous Provision – available throughout the day for both focussed and self-chosen learning

A range of technology is available in the classroom for children to access both independently and with an adult.

- Chrome books
- iPads
- Laptops
- Remote controls
- Battery operated toys

Outdoors

Children to take iPads/cameras on welly walks/outdoor play/outdoor lessons to record their own learning.

Children to use iPads to sequence their daily activities and present this to the class.