



Computing

EYFS overview

An overview of the Kapow Primary EYFS Computing scheme of work, with teacher guides, progression and assessment and more.

Our new EYFS computing scheme will transform the way you teach technology in the Early Years! Designed especially for the Reception classroom, our play-based scheme is hands-on and fun and is perfect for NQTs, RQTs or more experienced teachers.

The scheme includes five units, made up of five lessons each. From exploring hardware to following and giving instructions - it's the ideal precursor to the coding, programming and more complex computing found in Year 1.

Each plan comes with easy-to-follow guidance, along with key vocabulary and prompts to use as you play and work alongside the children. The plans are easy to read, quick to resource and can easily be accessed by teachers, classroom assistants and other staff members.



Unit 1**Networks and systems 1: Using a computer****Lesson 1: Keyboards**

Learning what a keyboard is and how to locate relevant keys.

Lesson 2: Logging in and out

Learning to log in and out.

Lesson 3: Mouse control

Learning what a mouse is and developing control when using a mouse.

Lesson 4: Mouse control - clicking

Developing basic mouse skills, including moving and clicking and using an online paint tool.

Lesson 5: Mouse control - clicking and dragging

Developing basic mouse skills, including moving and clicking and using an online paint tool.

Unit 2 Programming 1: All about instructions

Lesson 1: Following instructions

The class follow instructions as part of practical activities and games.

Lesson 2: Giving simple instructions

Learning to give simple instructions.

Lesson 3: Dressing up instructions

The children follow instructions as part of a dressing up game and learn to give simple instructions.

Lesson 4: Debugging instructions (washing hands)

The children follow instructions as part of a dressing up game and learn to give simple instructions.

Lesson 5: Predictions

Pupils learn that an algorithm is a set of instructions to carry out a task, in a specific order. They use logical reasoning to read simple instructions and predict the outcome.

Unit 3 Computing systems and networks 2: Exploring hardware

Lesson 1: Exploring hardware tinker tray

Pupils explore and tinker with different hardware and are introduced to the relevant vocabulary.

Lesson 2: Real world tinker tray

Children explore and tinker with hardware and identify where technology is used in places that they are familiar with, such as homes and school.

Lesson 3: Pictures of play

Children learn to operate a basic camera to take photographs of their independent play.

Lesson 4: Picture walk

Children further develop their photography skills, taking photographs of their discoveries on a walk around the school grounds.

Lesson 5: Class photo album

Working with an adult, children take selfie photographs to create a class gallery.

Unit 4

Programming 2: Programming Bee-Bots

Lesson 1: Understanding arrows

Children learn the meaning of directional arrows and follow a simple sequence of instructions.

Lesson 2: Introducing the Bee-Bot

Children experiment with programming a Bee-Bot/Blue-Bot and tinker with hardware to develop familiarity and introduce relevant vocabulary.

Lesson 3: Simple Bee-Bot programming

Children experiment with programming a Bee-bot/Blue-bot and to learn how to give simple commands.

Lesson 4: Understanding algorithms

Children follow an algorithm as part of an unplugged game and learn to debug instructions when things go wrong.

Lesson 5: Programming a Bee-Bot

Experimenting with programming a Bee-Bot/Blue-Bot and learning how to give simple commands. Understanding how to debug instructions, with the help of an adult, when things go wrong.

Unit 5 Data handling: Introduction to data

Lesson 1: Loose parts play

Children sort and categorise objects.

Lesson 2: Sorting ourselves

Children sort themselves into groups based upon given categories and then independently.

Lesson 3: Yes or no?

Children respond to yes/no questions as an introduction to branching databases.

Lesson 4: Creating a branching database

Children learn branching databases through physical sorting and categorising.

Lesson 5: Exploring pictograms

Children learn to interpret a basic pictogram.

The two teacher guides help you to include computing on an ongoing basis within your setting, ensuring that children are putting their computing skills into practise to achieve a greater depth of learning. From resource lists to enhance your classroom, to explaining how to maintain a cross-curricular approach to learning - the guides cover how to encourage children to use and develop their computing skills within your continuous provision and as part of child-led projects.

Teacher guide: Child led projects using technology (see the [EYFS homepage](#))

Using technology within other areas of children's learning

Teacher guide: Computing through continuous provision (see the [EYFS homepage](#))

Guidance on how to make technology and computing part of your regular classroom provision

The approach

Children in the Early Years learn best through play and practical application of skills. Our computing scheme has been designed to align with cutting-edge Early Years pedagogy to ensure that not only are children accessing relevant areas of the curriculum but that they remain highly involved and engaged while doing so.

The lessons in each unit involve a blend of teacher-led activities, enhanced provision provocations, active games and independent tasks. The age appropriate sessions will ensure that children are seamlessly moved from one activity to the next, without time to disengage from learning.

When you deliver each lesson and unit is entirely your decision. You could choose to start with Unit 1 at the beginning of the year and teach one lesson per week, circling back around to the start when you have completed all 5 units (the units have been designed to be followed in a consecutive order from 1 through to 5). Or you could teach one lesson a fortnight, or even one a day!

The very best way to ensure that children maintain and retain key skills is through repetition and revisiting concepts. Our teacher guides have been designed with this in mind and will help you to seamlessly weave computing into the everyday life of your classroom.

Who is the EYFS Computing scheme for?

The scheme is perfect for NQTs, RQTs or more experienced teachers, with no need for any previous computing knowledge or subject specialism.

The lessons are planned so that they can be taught by teachers or teaching assistants alike. All units, including more complex computing concepts such as 'algorithms' and 'branch databases' are introduced gradually, thoroughly explained and planned into easy-to-teach lessons, suitable for every staff member to deliver.

If you are eager to develop your subject knowledge, develop a subject specialism or improve confidence when teaching computing, the scheme ensures that you get to grips with the requirements for the EYFS, safe in the knowledge that children are accessing deep levels of learning with all curriculum outcomes covered.

How can the EYFS Computing scheme be used?

Lessons can either be delivered to a whole class or in smaller groups. Some lessons may work best when delivered in small groups, and this is clearly stated on each relevant plan under the 'Teacher notes' section.

With the exception of Unit 1: Using a computer, all lessons can be carried out in the classroom or outdoor area, with no need for access to a computing suite or a class set of laptops. The play-based lessons focus on un-plugged skills (those learnt away from a computer) and build a strong foundation of knowledge needed for computing lessons in Key stage 1.

Using the teacher guide, 'Computing through continuous provision' will help you to develop a technology-rich environment, in which children are able to constantly access and refine their computing skills.

The scheme includes questions to consider and things to look out for as you complete your observations and assessments of the children and 'Next steps' are included with every plan, so that you can plan for progression.

As you work through the lessons within and complete observations for each child, you will be able to gather evidence towards the Early Learning Goals (ELGs) for mathematics, communication and language and physical development, in addition to the other four areas of learning and the all-important characteristics of effective learning. This will help you to decide upon a best-fit picture for each child and will ultimately inform the Reception end of year profile, when the child is assessed as 'emerging', 'secure', or 'exceeding' the ELG.

How can the EYFS Computing scheme link to year 1?

The lessons are a natural precursor to our Year 1 computing plans and focus on how to naturally incorporate computing into all areas of learning within the EYFS curriculum.

Topics and concepts are introduced in imaginative and easy-to-understand ways, ensuring that children acquire a solid foundation of understanding and make a smooth transition to the KS1 scheme of work.

Both the EYFS and Year 1 computing schemes feature a unit all about programming a Bee-Bot. While the Year 1 lessons focus on programming the Bee-Bots to follow set paths and getting to grips with the finer points of algorithms, the EYFS Bee-Bot unit begins simply with understanding arrows. This is because in order to understand algorithms (sets of instructions) and programming, children first need to know how to give simple instructions and what directional arrows mean. It is in this way that our schemes work together in perfect symbiosis - the EYFS scheme building the foundations and bridging the gaps so that children can enter Year 1 with all the building blocks in place to continue their computing journey.

1. Remember that early computing skills do not need to be taught on a computer! Giving instructions, understanding arrows and direction and categorising data are all easy to teach in a practical and fun way without a screen in sight!
2. Technology in the Early Years doesn't just mean familiarity with tablets, laptops and cameras. Playing with old style telephones, typewriters and mechanical toys are all part and parcel of building a solid foundation in computing.
3. Computing is the ultimate cross-curricular subject! You can weave technology and computing into maths lessons, literacy lessons and more.
4. Allow children time to use technological equipment independently. Children will develop a much deeper understanding if we give them regular access to cameras, voice recorders, tablets and other technology throughout the course of the day.
5. Don't underestimate the power of computing in the Early Years! Setting aside specific time to explore computing concepts and develop familiarity with the vocabulary will set children on the path to fluency in computer literacy.