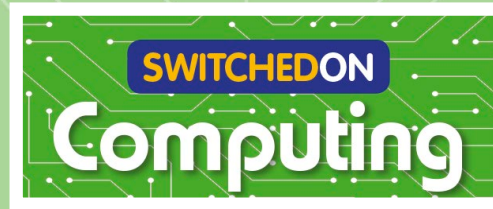


# SWITCHED ON Computing

## Overview

1. What is *Switched on Computing*?
2. What is included?
3. Series contents





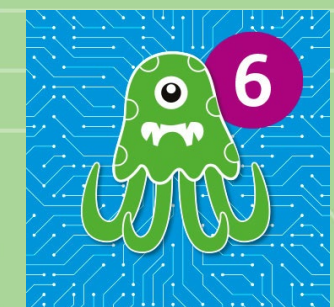
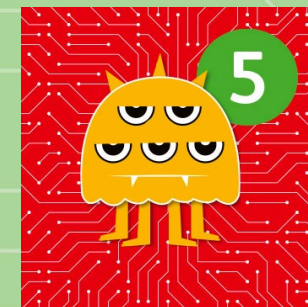
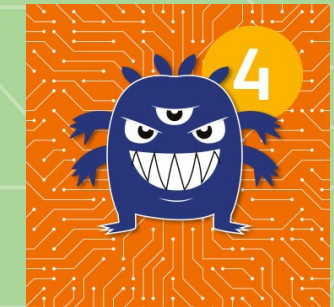
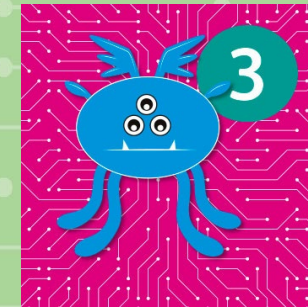
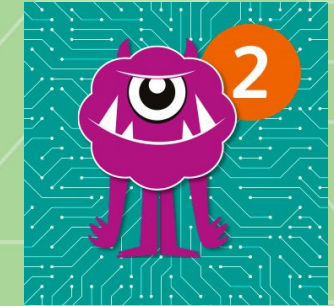
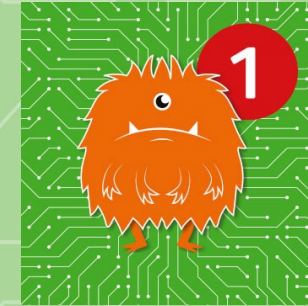
## ***What is Switched on Computing?***

The third edition of *Switched On Computing* provides full coverage of the primary computing programmes of study. You can follow the course as a whole and be reassured of delivering a coherent, complete computing curriculum which helps pupils to progress their knowledge, understanding and skills in computing. You can also adapt all that is here to suit your own school's context, your curriculum, and the enthusiasm and interests of your pupils and colleagues.

The course comprises online resources for each year group (see slides 3–4)

## What is included in the Teacher's Guide?

- **Introduction** – gives detail of the structure and types of resources included in the scheme
- **Overview of units** – an at-a-glance view of the units, including the learning expectations, coverage of the Computing programme of study and the software and hardware needed
- **Curriculum links** – a matching chart showing where the units link to other areas of the curriculum
- **Online safety road map** – an overview of how online safety points are covered in the units
- **Six units** – which include a unit plan, preparation for teaching the unit and comprehensive step-by-step instructions for each of the six teaching sessions
- **Glossary** – defines all key vocabulary.





## What is included in the supporting resources?

- **Teaching slides:** editable presentations that can be used as a front-of-class teaching tool to go through the steps in each session
- **Video walkthroughs:** show the steps in a session when an application is used – can be used as a front-of-class teaching tool to model the steps or allocated to pupils to work through
- **Pupil worksheets:** there are a range of different types including:
  - handouts that take pupils through the activity steps
  - supporting worksheets for some of the activities
  - self-assessments at the end of each unit
  - end-of-unit knowledge quizzes.
- **End-of-unit knowledge quiz:** self-marking multiple-choice questions that test pupils' knowledge and understanding of the key concepts in the unit
- **CPD videos:** include guidance on computing concepts and subject knowledge
- **Unplugged activities:** ideas to help pupils understand certain computing concepts or terms – can be used as additional standalone sessions or as starters/plenaries to a session
- **Progression record:** easy-to-use spreadsheet to track pupil progress
- **Progression framework:** sets out expectations of what children could achieve in each year at primary school, mapped to the Switched on Computing units.

Unit	Title	Focus	Main hardware/ software	Alternative hardware/ software	Computing PoS focus
1.1	We are treasure hunters	Solving problems using programmable toys	Blue-Bots Blue-Bot app	Other programmable toys Scratch Bee-Bot emulator	Computer Science: Coding
1.2	We are TV chefs	Filming the steps of a recipe	iPads Camera app iMovie	Laptop/desktop computers Digital cameras Android tablets WeVideo Microsoft Photos	Computer Science: Computational thinking
1.3	We are digital artists	Creating work inspired by great artists	iPads Brushes Redux Autodesk Sketchbook	Laptop/desktop computers Chromebooks Android tablets Microsoft Paint/Paint 3D PaintZ for Chromebook	Information Technology: Creativity
1.4	We are publishers	Creating a multimedia eBook about our achievements	iPads Book Creator Google Photos	Laptop/desktop computers Chromebooks Google Slides Microsoft PowerPoint	Digital Literacy: Online safety
1.5	We are rhythmic	Creating sound patterns in ScratchJr and GarageBand	iPads GarageBand ScratchJr	Laptop/desktop computers Chromebooks Scratch Audacity, LMMS, Soundtrap	Information Technology: Media
1.6	We are detectives	Using data to solve clues	iPads Popplet Google Forms Google Sheets	Laptop/desktop computers Chromebooks FreeMind, Bubbl.us, MindMeister Microsoft Forms and Excel	Information Technology: Data

Unit	Title	Focus	Main hardware/ software	Alternative hardware/ software	Computing PoS focus
2.1	We are astronauts	Programming on screen in ScratchJr	iPads ScratchJr	Laptops/desktops/Chromebooks Android tablets Blue-Bots or Bee-Bots Scratch	Computer Science: Coding
2.2	We are games testers	Working out the rules for games	iPads Scratch Laptops/desktops/Chromebooks FixTheFactory	Android tablets Blockly Games	Computer Science: Computational thinking
2.3	We are photographers	Taking, selecting and editing digital images	iPads Camera app Photos app Snapseed	Android tablets Laptops/desktops/Chromebooks Digital cameras Pixlr, Windows Photos	Information Technology: Media
2.4	We are safe researchers	Researching a topic	iPads Popplet Google Slides Google custom search	Android tablets Laptops/desktops/Chromebooks FreeMind Microsoft PowerPoint, Keynote	Digital Literacy: Online safety
2.5	We are animators	Creating a stop-motion animation	iPads Stop Motion Studio	Android tablets Laptops/desktops/Chromebooks Digital cameras iStopMotion, Zu3D Stop Motion Animator	Information Technology: Media
2.6	We are zoologists	Collecting data about bugs	iPads Google My Maps Google Docs/Sheets/Slides Camera and Photos apps	Laptops/desktops/Chromebooks Digital cameras Windows Maps Microsoft suite	Information Technology: Data



Unit	Title	Focus	Main hardware/ software	Alternative hardware/ software	Computing PoS focus
3.1	We are programmers	Programming an animation	Laptops/desktops/Chromebooks Scratch	Android tablets Cameras and microphones ScratchJr	Computer Science: Coding
3.2	We are bug fixers	Finding and correcting bugs	Laptops/desktops/Chromebooks Scratch Screen recorder software	Android tablets Snap!	Computer Science: Computational thinking
3.3	We are presenters	Videoining a presentation against a green screen	iPads Green screen background Tripods and iPad mounts Popplet iMovie	Camera app Microsoft Photos Adobe Premiere Elements	Information Technology: Media
3.4	We are who we are	Creating presentations about ourselves	Laptops/desktops/Chromebooks Google Slides Screen recorder software	iPads or Android tablets Microsoft PowerPoint	Digital Literacy: Online safety
3.5	We are co-authors	Producing a wiki	Laptops/desktops Google Sites Popplet	iPads or Android tablets Chromebooks	Information Technology: Media
3.6	We are opinion pollsters	Collecting and analysing data	Laptops/desktops/Chromebooks Google Forms Google Sheets Google Slides Google Drive	iPads or Android tablets Microsoft equivalent j2vote, j2data and j2office	Information Technology: Data

Unit	Title	Focus	Main hardware/ software	Alternative hardware/ software	Computing PoS focus
4.1	We are software developers	Developing a simple educational game	Laptop/desktop computer Scratch	Snap! Pyonkee	Computer Science: Coding
4.2	We are makers	Coding for micro:bit	Laptop/desktop computer micro:bit Microsoft MakeCode	Crumble	Computer Science: Coding
4.3	We are musicians	Creating a piece of music in GarageBand	iPad GarageBand	LMMS	Information Technology: Media
4.4	We are bloggers	Sharing experiences and opinions	Laptop/desktop computer Digital camera WordPress or Blogger	Audio recorders or tablets	Digital Literacy: Online safety
4.5	We are artists	Fusing geometry and art	Laptop/desktop computer Scratch Inkscape Terragen	Logo Adobe Ideas Pyonkee Snap!	Computer Science: Coding
4.6	We are meteorologists	Recording and presenting the weather	Equipment for measuring weather Microsoft Excel Microsoft PowerPoint Keynote	Google suite	Information Technology: Data



Unit	Title	Focus	Main hardware/ software	Alternative hardware/ software	Computing PoS focus
5.1	We are game developers	Developing an interactive game	Laptops/desktops/Chromebooks Scratch	Microphones (optional) Snap! Kodu	Computer Science: Coding
5.2	We are cryptographers	Cracking codes	Laptops/desktops/Chromebooks iPads or Android tablets Scratch	Snap!	Computer Science: Computational thinking
5.3	We are architects	Creating a virtual space	Laptops/desktops/Chromebooks iPads or Android tablets Trimble SketchUp Screen recorder	CoSpaces Minecraft Education Edition	Information Technology: Media
5.4	We are web developers	Making sense of the Internet and building a website	Laptops/desktops/Chromebooks iPads or Android tablets Google Chrome Google Sites	N/A	Digital Literacy: Online safety
5.5	We are adventure gamers	Creating an interactive adventure using presentation software	Laptops/desktops/Chromebooks Google Slides Voice recorder	iPads Microsoft PowerPoint	Information Technology: Media
5.6	We are VR designers	Experimenting with virtual and augmented reality	iPads or Android smartphones Google Cardboard Google Street View GarageBand CoSpaces	N/A	Information Technology: Media

Unit	Title	Focus	Main hardware/ software	Alternative hardware/ software	Computing PoS focus
6.1	We are toy makers	Coding and physical computing	Laptops/desktops/Chromebooks micro:bits MakeCode Scratch	iPads or Android tablets	Computer Science: Coding
6.2	We are computational thinkers	Mastering algorithms for searching, sorting maths	Laptops/desktops/Chromebooks Scratch	iPads Snap!	Computer Science: Computational thinking
6.3	We are publishers	Creating a yearbook or magazine	Laptops/desktops/Chromebooks Digital cameras or iPads Google Docs	Book Creator Microsoft Word	Information Technology: Media
6.4	We are connected	Developing skills for social media	Laptops/desktops/Chromebooks Digital cameras or iPads School blogging platform Padlet	Audio recorders or other tablets	Digital Literacy: Online safety
6.5	We are advertisers	Creating a short television advert	Laptops/desktops/Chromebooks Digital cameras or tablets iMovie	Green Screen	Information Technology: Media
6.6	We are AI developers	Learning about artificial intelligence and machine learning	Laptops/desktops/Chromebooks iPads Scratch Machine Learning for Kids Audacity Google Chrome	Smart speaker (Google Home/Amazon Echo)	Computer Science: Coding