Banks Lane Junior School

Communication, Collaboration, Curiosity, Resilience, Reflection

Our teaching approach to computing

Intent

At Banks Lane Junior School we intend for our pupils to leave us in year 6 with the knowledge, skills and attitudes that they need to effectively navigate the digital world in the 21st century. The curriculum covers the foundations, applications and implications of computing, ensuring that pupils progress in computer science, information technology and digital literacy.

1. **The Curriculum: What do we teach, when and how?**

At Banks Lane Junior School, children will be taught lessons taken from the Switched On! scheme of work. The 'Switched On Computing' scheme of work provides full coverage of the primary computing programme of study.

At Banks Lane Junior School, computing lessons are delivered as part of a Computing day held once a half term and cover the statutory National Curriculum objectives for Key Stage 2:

- Problem Solving
- Programming
- Logical Thinking
- Communicating
- Searching
- Content Creating
- E-Safety

Each objective is revisited throughout each year group to allow children to build on prior learning. The lessons also provide a progressive programme.

2. **SEND and inclusion.**

We want all of our learners to be part of computing sessions where they will be developing the skills needed to navigate the digital world in the 21st Century. As in all subjects, teachers work hard to remove barriers to learning. Some examples of how we achieve this in Computing are:

- Targeted questioning and scaffolding of learning tasks.
- Mixed ability pairings.
- Opportunities to record ideas in different ways e.g. taking a photo, creating a mind-map.
- Modelling how to complete tasks.

3. What would you see in the classroom?

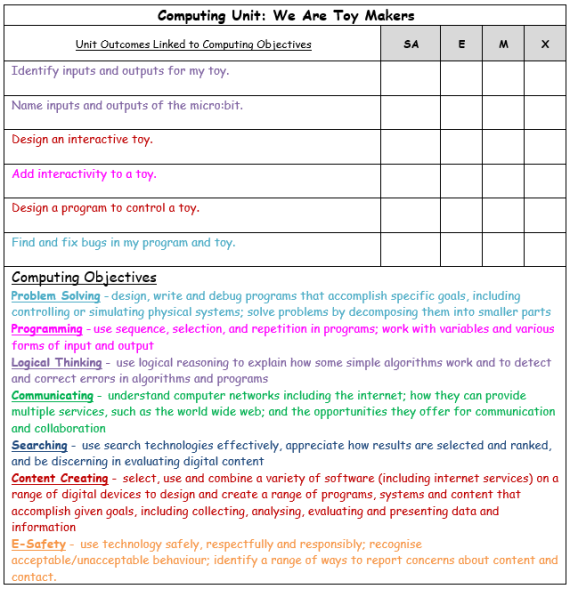
Whilst each classroom is naturally different, there are clear consistencies across the school and year groups. Every year group will focus on one 'project' per half term which forms a full computing day, under the name 'We Are…':

Year 3	Year 4	Year 5	Year 6
We Are Programmers	We Are Software Developers	We Are Game Developers	We Are Toy Makers
We Are Bug Fixers	We Are Makers	We Are Cryptographers	We Are Computational Thinkers
We Are Presenters	We Are Musicians	We Are Architects	We Are Publishers
We Are Who We Are	We Are Bloggers	We Are Web Designers	We Are Connected
We Are Co-Authors	We Are Artists	We Are Adventure Gamers	We Are Advertisers
We Are Opinion Pollsters	We Are Meteorologists	We Are VR Designers	We Are AI Developers

Each project has links to and then builds upon previous learning. Within each project, teaching slides are used to demonstrate new learning and will support children to create a similar piece of work.

4. Assessment: How do we know how the children are doing? How do they know?

Along with a task that is set for each computing day, there is a knowledge organiser alongside evidence from the day. The knowledge organiser contains the full list of National Curriculum objectives for computing with a child-friendly name and they are colour coded to the outcomes for each project. Each child has a chance to assess themselves for each outcome of the project and then teachers can assess at the end of the computing day.



Computing Unit: We Are Toy Makers

Unit Outcomes Linked to Computing Objectives	SA	E	M	X
Identify inputs and outputs for my toy.				
Name inputs and outputs of the micro:bit.				
Design an interactive toy.				
Add interactivity to a toy.				
Design a program to control a toy.				
Find and fix bugs in my program and toy.				

Computing Objectives

Problem Solving - design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts

Programming - use sequence, selection, and repetition in programs; work with variables and various forms of input and output

Logical Thinking - use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs

Communicating - understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration

Searching - use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content

Content Creating - select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information

E-Safety - use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

5. How does our computing Lead monitor, evaluate, and improve the teaching of computing across our school?

Our computing lead receives regular emails from 'Switched On Computing' which contain updates to scheme content and national updates to the requirements of computing teaching and learning. Leaders attend local authority network days where sharing of 'best practice' is brought back to school in order to ensure the quality first teaching of computing. Leaders use regular learning walks and observing class teaching to ensure a consistency of approach across the school.

6. Cross curricular links, enrichment and the community.

Across all projects that children will complete at Banks Lane Junior School, there are a range of links to other subjects. For example, whilst learning about artificial intelligence in Year 6, links to art and PSHE are made during lessons. Additional to computing lessons, assemblies around E-Safety are held for children to support their understanding of internet safety and any up-to-date programs children may see outside of school.