



Computing



INTENT

At Frogmore Infant School, we aim to ensure our computing curriculum is fully inclusive to every child, given the significant role of computing in our children's daily lives. Our intent is to place our children at the forefront of new technology, developing their attitudes, skills, and knowledge to become competent with computers.

In today's world, computers are integral. We aim to expose our children to a wealth of learning opportunities and transferrable skills, both explicitly within the Computing curriculum and across other subjects. Our mission is to keep pace with technological changes and developments. Through the study of Computing, children will develop a wide range of fundamental skills, knowledge, understanding, and the ability to keep themselves safe, especially online, equipping them for a successful future.

IMPLEMENTATION

Lesson design

Computing is rich in abstract concepts. As a result, we ensure that knowledge is developed over time. We recognise the need to manage the cognitive load placed on children's short term memory. Scaffolding is used to help children to develop their knowledge such as worked examples, faded worked examples. We consider children's expertise and prior knowledge when selecting teaching approaches, and ensure explicit instruction is provided especially in the early stages of skill and knowledge acquisition.

Progression

Learning is carefully sequenced around the three pillars of progression (computer science, information technology and digital literacy) from YR to Y2 so that knowledge, skills and understanding build on previous learning. Our progression of skills and knowledge details the declarative and procedural knowledge to be covered. Children's schemata is built through new and repeated encounters to build a breadth and depth of knowledge. Our curriculum carefully sequences knowledge related to online safety to ensure that subject content is appropriate children at each stage of their education as well as reposing to emerging issues and developments.

E safety

Teaching online safety across the school establishes vital foundational habits for young children as they begin interacting with digital devices. On line safety is covered through computing and PSHE and reinforced in assemblies and special days. We want our children to be curious about technology and be inspired to explore its possibilities alongside knowing how to stay safe online and know where to seek help or support.

EYFS

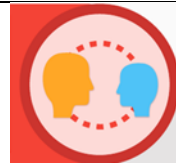
Computing is not a discrete subject in the Early Years Foundation Stage. It is introduced through the EYFS framework with in the Understanding the World and Expressive Arts and Design areas of learning. At Frogmore Infant School, we sequence learning from YR to Y2 to secure foundational prerequisites in YR before KS1, scaffold abstract t hinging and to track early intervention.

SEND

Three pillars of computing

1. **Computer science** - understanding how digital systems work and programming
2. **Information technology** - using technology to create, organise and communicate
3. **Digital literacy** - using technology safely, respectfully and responsibly

EEF 5-a-day approach in computing



Explicit instruction

Clear and succinct explanations and demonstrations
Dual coding of key vocabulary
Active learning through practical work



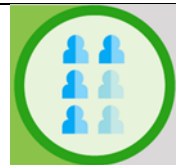
Cognitive and metacognitive strategies

Chunked tasks- break down into small steps
Retrieval tasks and recall of knowledge and vocabulary
Use of class learning journey to visually track learning



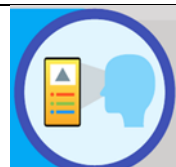
Scaffolding

Use of structured verbal sentence stems
Use of visual and tactile scaffolds
Skills in clear steps for each sequence of learning
Use of verbal scaffolds/teacher modelling to reteach and remind



Flexible grouping

Use of mixed ability pairings



Using technology

Use of computers, tablets, programmable devices, accessible hardware

IMPACT

The impact of our computing curriculum is that children at Frogmore Infants School are equipped with the necessary attitudes, skills and knowledge that will enable them to be ready for the learning required at KS2 and for their future in an increasingly digital world.

We shape our computing curriculum to be fully inclusive to every child. We teach core concepts e.g. algorithms and sequencing, through physical movement before relating it to devices. Adaptive technology is available as required.

Happy learners, great achievers