

# **Computing** at Whittington Primary School



#### **Whittington Curriculum Drivers**

Inspired — Teachers will provide an exciting, rich, relevant and challenging Computing curriculum for all pupils. We will enthuse and equip children with the capability to use technology throughout their lives and see its many varied uses and applications. Children will be given real life problems to solve using computing i.e. presenting real results using spreadsheets and graphs. Children will be inspired by the sense of history in computing and be able to see the bigger timeline. Links will be made with computer scientists such as Alan Turing who invented computer science or Tim Berners Lee who invented the World Wide Web and Margaret Hamilton who wrote the code for the Apollo Guide Computer for Apollo.

Articulate —We will provide children with the technical, subject specific vocabulary they will need in each unit. Children will be expected to use and apply this language to their learning and their work. Technical vocabulary can be displayed for the unit being taught to support children to use it correctly. Children will be able to talk fluently and coherently about their computing work. For example, children will be able to articulately explain how a simple algorithm works and to detect and correct errors in algorithms and programs.

Ambitious – We will give children access to a variety of high quality hardware, software and unplugged resources. We will exceed the minimum government recommended/statutory guidance for programmes of study for Computing and other related legislative guidance (online safety). Teachers will look for opportunities for children to apply their computing skills and knowledge to other subject areas so children can apply it to other areas of their life and learning. Due to the fast pace of technology innovation and constantly emerging trends we will continually review our computing curriculum and implement any changes to ensure it remains ambitious for all children. Curious – Children will be provided with real problems to solve in computing using their developing skills and knowledge. Children will be encouraged to ask questions and discuss solutions. Teachers will instil critical thinking, reflective learning and a 'can do' attitude for all our pupils, when engaging with technology.

Excited – Enthuse and equip children with the capability to use technology throughout their lives. We will use technology imaginatively and creatively to inspire, excite and engage all pupils. For younger children, outdoor exploration is an important aspect, supported by ICT toys such as metal detectors, controllable traffic lights and walkie-talkie sets. Children should be provided with exciting ICT scenarios based on experience in the real world.

Knowledgeable – We will ensure children have the knowledge needed to communicate safely and respectfully online, keeping personal information private. Knowledge of e-safety and responsible use is a 'big idea' which will be continually reviewed and revisited. Children will be given the knowledge to recognise common uses of information technology both within and beyond school. We will equip pupils with skills, strategies and knowledge that will enable them to reap the benefits of the online world, whilst being able to minimise risk to themselves or others. Children will be given opportunities to continually apply their developing knowledge and skills to a range of situations and scenarios.



### **Sequencing of Content**

We follow the Purple Mash
Computing Scheme of Work. This is
carefully sequenced for progression.
The plans clearly show progression
through the age related
expectations.

The plans ensure that units are revisited throughout year groups and school so that skills are firmly embedded and built upon.





## **Big ideas**

- ☐ E-Safety/ Appropriate Use
- ☐ Coding and Computational thinking
- Spreadsheets
- Internet and Email
- Art and Design
- Music
- Databases and graphing
- Writing and Presenting
- Communication and networks



## **Deepening Concepts**

Teachers will plan for authentic links between computing and other topics.

Knowledge and skills are carefully sequenced to build within year groups and between year groups to ensure they are built upon and deepened. Big ideas are continually revisited.



#### **Retrieval Practice**

Children will be required to apply previous skills in order to complete new learning. Skills and knowledge is carefully built to ensure this is achieved.

Computing lessons will begin with recap of previous learning.

Children will be given opportunities to use ICT knowledge and skills in other curriculum areas.