Goosewell
Primary Academy

Rise To Greatness

Computing Curriculum

Overview

At Goosewell Academy, we aim to provide a high-quality computing education which equips children to use computational thinking and creativity to understand and change the world. The curriculum can be broken down into 3 strands: computer science, information technology and digital literacy, with the aims of the curriculum reflecting this distinction. The curriculum will teach children key knowledge about how computers and computer systems work, and how they are designed and programmed. Learners will have the opportunity to gain an understanding of systems and processes of all kinds and apply their learning to real life situations. The first focus of every year group is online safety and all computing lessons begin with the children acknowledging the on-line safety rules which are adhered to across the school community.

EYFS

The new Early Years Curriculum does not include computing as part of the children's evidenced learning, but at Goosewell, we ensure that the children are immersed in technology from day one. They explore how things work through play, using cogs, pegs and boards, and through investigating old telephones, tills and other examples of technology, in their home corner. During circle time and PSHE sessions, children engage in discussions surrounding technology, including sensible amounts of 'screen time' and effects, both positive and negative, this may have. The also have regular tasks and games to complete on the large interactive whiteboard.

Key Stage 1

In year 1, pupils will gain their first understanding of what an algorithm is through creating instructions on how to draw a crazy character, and use logic to predict the behaviour of simple algorithms during their World Map Logic lesson.

In year 2, pupils look at sequences of commands and use logical reasoning to predict what they will do, as well as predicting problems and 'debugging' them. They then 'tinker' and program their commands, using Bee Bots and Scratch, to see if their predictions are correct.

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Lower Key Stage 2

Computing in year 3 sees the classroom turned into a courtroom as pupils hear several cyber-crime court cases. Pupils take on the roles of judge, barristers and members of the jury as they determine whether the defendant has broken the law, the sentence they could receive and the impact on victims of their crimes. This put their learning into context to explain the advantages and disadvantages of communicating electronically and strategies for preventing issues.

Across years 3 and 4, there are many activities that allow pupils to program anything from an animation illustrating the steps in fossil formation to a Viking raid. In doing so they learn about designing, writing, debugging, understanding different networks, and sequencing commands in Scratch, as well as tying into their learning across other areas of the curriculum.

Upper Key Stage 2

By year Six, our pupils are given more freedom to use other computing tools such as computing software to create avatars and digital scrapbooks, to becoming WW2 code crackers in their Britain at War project.

Much of the subject-specific knowledge developed in our computing lessons equip pupils with experiences which will benefit them in secondary school, further education and future workplaces. From research methods, use of presentation and creative tools and critical thinking, computing at Goosewell is delivered in a fun and engaging way to raise standards and gives children the building blocks that enable them to achieve their full potential in a world that is becoming ever more reliant on technology.