ICT CONSTRUCT

> *"Technology will never replace great teachers but technology in the hands of great teachers is transformational"* *– George Couros*

Aims and Objectives

The ICT curriculum at Dowson has been designed with multifaceted aims and objectives. The knowledge and skills identified in the National Curriculum form the foundation of our curriculum content but we have developed this further to ensure that what children are taught, and the experiences that they are afforded, reflect our school vision and values.

A high-quality computing education equips pupils to use computational thinking and creativity to understand and change the world. Computing has deep links with mathematics, science, and design and technology, and provides insights into both natural and artificial systems.

The core of computing is computer science, in which pupils are taught the principles of information and computation, how digital systems work, and how to put this knowledge to use through programming. Building on this knowledge and understanding, pupils are equipped to use information technology to create programs, systems and a range of content. Computing also ensures that pupils become digitally literate – able to use, and express themselves and develop their ideas through, information and communication technology – at a level suitable for the future workplace and as active participants in a digital world.

What ICT looks like at Dowson

Learning Connections

Connecting learning is an important feature of pedagogy at Dowson. Therefore, each unit has been planned with opportunities to consolidate prior, relevant learning of knowledge and skills. Unit plans explicitly identify previous learning, future learning and other curriculum links to ensure conscious connections. Each ICT lesson starts with a 'Connection Phase' that reviews learning from the previous lesson, unit or year as appropriate.

Skills

During lessons, children will develop their understanding of how a computer processes instructions and commands and develop their skills in coding/programming. Children will also have the opportunity to use a range of different technology and understand their purposes.

Children will have the opportunity to develop their typing speed throughout their time at school. They will increase their accuracy when using a keyboard and mouse to develop competency.

Subject specific vocabulary will be taught, defined and used within discussion and tasks every lesson. The children should be encouraged to use subject specific vocabulary as much as possible.

Every child will explore e-safety around the topic of study and will be specifically taught how to stay safe online.

Vision for Pupils

At Dowson, pupils will be able to understand and apply the fundamental principles and concepts of computer science.

Pupils will be about to analyse problems in a computational terms and have repeated practical experience of writing computer programs in order to solve problems.

Our pupils should be equipped with the skills and tools necessary to independently use technology to express themselves and develop their ideas at an appropriate level to be active participants in an ever changing, digital world. They will be able to evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems

It is important to us that all pupils can safely use technology and Dowson will equip them with an understanding of online safety.

Overall, we want the pupils of Dowson to be responsibly, competent, confident and creative users of information and communication technology.

Assessment

Each ICT unit will conclude with an assessment piece that teachers can use to identify and assess the knowledge acquired by pupils during the unit. Assessment of skills will take place during the teaching of the unit. Connection phases and formative assessments will be ongoing and inform short term planning.