



The Computing Curriculum

Over the last 2 years there have been significant changes to what was called the 'ICT curriculum'. The new version, for effective use of computers, has been named "Computing". The launch of the new Computing Curriculum has brought the need for teachers and pupils to learn new and unfamiliar ideas. Terms and concepts such as algorithm, procedure, variables, debug and logical reasoning are set to become commonplace in education from September 2014.

At Cottingley Village Primary School we are working alongside our colleagues at The Bradford Curriculum Innovation Team to integrate this new computing curriculum into our 'Learning Challenge Curriculum'. The essential skills and knowledge being taught alongside the application of these across all other areas of school life.

The Computing Curriculum has been split into four specific aspects.

1. Digital Literacy

The Internet and other electronic devices are widely used and available to millions of people all over the world. We live in a society where information is at our fingertips. The digital literacy strand aims to prepare the children for a life within this world. It will give them the ability to safely, responsibly and critically navigate, evaluate and create information using a range of digital strategies.

This includes:

Information Literacy: Where children learn how to research using electronic data and the internet safely and effectively

Safety and Security: Children learn how to keep themselves and others safe online and the importance of keeping their personal information to themselves.

Digital Citizenship: We aim to teach the children that a good digital citizen is one who knows what is right and wrong, exhibits intelligent technological behaviour, and makes good choices when using technology.

2. Computer Science

This incorporates the principles of information and computation, how digital systems work and how they are applied to the digital world.

All websites, computer programmes, apps and computer games are created using a series of instructions using computer code. These instructions, executed in a logical sequence are called algorithms.

In Key Stage 1 (Year 1-2): Children will learn how to create simple algorithms and debug (find out what is wrong and change) algorithms that do not work.

In Key Stage 2 (Year 3-6): Children will develop these programming skills to control on screen characters or devices to solve a problem and create simple games programmes for different purposes. They will also learn out the concepts of selection and variables and how these effect and change what happens within the programmes they write.

3. Applying Technology

This is using technology to accomplish given goals through the collection, analysis, evaluation, creation and presentation of information.

This includes:

Multimedia: Children use a range of programmes to combine text, graphics, videos, sound and data to present their work to a given audience.

Visual Media: Children will create and manipulate detail images, videos and animation.

Sound and Music: Children will record, create and manipulate music and sound from different sources to present to a range of audiences.

Data handling: Children will collect, use, manipulate present and interpret a wide a range of data. This will include pictograms, bar charts, pie charts and databases.

Modelling: Children will explore simulations and experiment with different solutions to a range of problems. This might include using spreadsheets to explore business scenarios, entering a virtual world and exploring what is there or building their own worlds.

4. E-safeguarding

At Cottingley Village Primary School we take E-Safety issues very seriously.

We ensure that all pupils in school receive regular E-Safety lessons every half term as well as incorporating E-Safety into every aspect of computing that we teach. There is also a half termly whole school E-Safety assembly.

These lessons tackle many areas including

KS1

- Keeping yourself safe online – including your personal information and password.
- What to do if you feel unsure about anything you see. Knowing what a trusted adult. is and who they are and the importance of ‘telling’.
- Understanding the internet is fun but there need to be rules to follow.
- Understanding the need to be kind and considerate to others online.
- Understanding that not everyone is who they say they are online.

These are taught through a range of stories, video clips, circle times and practical activities.

KS2

As above for KS1 but with the addition of:

- The dangers of clicking links sent from people you don't know.
- What is a digital footprint? How to keep it small and why.
- Understanding the risks / consequences of sharing information online.
- Cyberbullying – what it is, its effects and what to do if it happens to you.
- How reliable is everything you read online?
- Accessing age appropriate material – games and PEGI ratings.
- Exploring on screen addiction – games and internet access
- Understanding plagiarism and copyright laws

These are delivered through a carefully planned range of practical activities and discussion times.