Broadening Horizons

We aim to broaden horizons by introducing software tools that can be used for a wide range of purposes. Many of the tools introduced are free and available for students to use at home. We ensure that students understand how software can be used in the real world, e.g. to plan an event or manage finances. We also introduce students to hardware and software that many students may not have access to outside of school, including Micro:bits, the Adobe suite, Microsoft Office, Chromebooks and PCs.

Careers

We run a series of 'Careers in the Curriculum' weeks in our school. For ICT, this week takes place in December. Students take part in a number of activities to encourage them to think about how what they learn in the classroom can be applied in a number of future careers including: IT Manager, Software Developer, Data Scientist, Web Developer and Information Security Analyst.

Immerse Yourself

Micro:bit Emulator

Microsoft MakeCode for micro:bit is a free, learn-to-code platform where anyone can build games, code devices and mod Minecraft!

Small Basic

Small Basic is a programming language created to help students transition from block-based coding to text-based coding.

Praise and Reward

Our rewards system can be broadly split into four categories: classroom level, subject level, school level and privilege rewards. We'll focus on classroom and subject rewards here - for more information about our rewards schemes, please see our website.

CLASSROOM LEVEL REWARDS

Awarded for: working hard, taking risks and rising to a challenge, making mistakes and learning from them, helping others, and taking pride in the school community.

Rewarded by: praise postcards, positive phone calls to parents/carers, positive text messages home, and lesson based prizes.

SUBJECT LEVEL REWARDS

Reward scheme: star of the week, curriculum awards (Subject/School Way, participation, working with pride, embracing the whole curriculum), high flyer, extra mile, most improved.

Rewarded by: names displayed on reward boards, certificates, social media posts.

Contact

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BBC Bitesize Computing & ICT

BBC Bitesize's Computing and ICT 2nd Level has a range of information and activities linked to our KS3 curriculum.
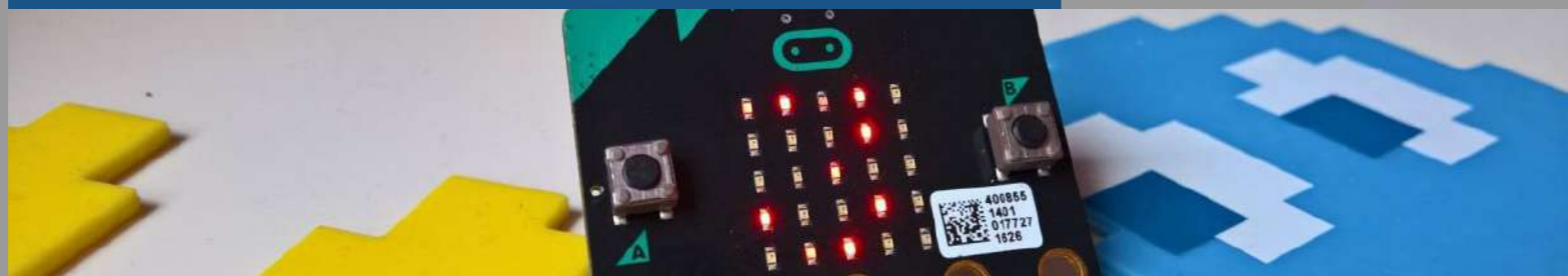
Scan the QR code to check it out!

ICT
YEAR 8 · Curriculum Newsletter

Curriculum Intent

In Computing we aim to provide an engaging, challenging, well sequenced curriculum which is broad and balanced, covering a range of computing and ICT topics. We aim to develop our students into 21st Century Digital Citizens who are able to use digital technology safely and responsibly, and to teach students both how to use technology effectively, with an understanding of how it works.

We aim to engender a love of learning, self-belief and aspiration through 4 key intentions:

- The Removal of Barriers to Learning
- Developing Skills for Learning
- Developing Personal Attributes
- Enriching Student Experiences and Broadening their Horizons

The Computing and IT Department's core purpose at KS3 is to deliver an engaging and challenging curriculum through outstanding teaching and learning. Our aim is for students to develop skills and knowledge in digital technologies and computer science, to prepare them for a future in a world where the use of this technology is fully embodied.

Students are given the opportunity to develop their computer coding and digital technology skills, allowing them to take their studies onto KS4 and beyond, developing skills that can be applied in a range of career paths and industries.

Year 8 Curriculum

In Year 8, computing is delivered via 1 lesson per week. Students cover the following topics:

Flowol
Flowol provides an opportunity to link programming logic with real world systems. Programs are developed using flowcharts, allowing us to represent algorithms in a different way to the block based tools used previously. We explore various real world systems such as traffic lights, looking at the various inputs, logic and outputs to develop algorithms to control simulations.

Project Green
Students use a range of applications to create various digital assets, including a website, 3D model and audio file in an environment themed project.

Micro:bit
The micro:bit is a pocket-sized computer that you can code, customise and control to bring your digital ideas to life. Here we apply our programming skills using micro:bit hardware and block based programming interface, building on fundamental programming skills introduced with Scratch and Kodu, introducing more advanced concepts such as boolean operators and arrays.

Spreadsheets
Spreadsheets are used in a variety of professions and are also widely used to help complete personal tasks such as managing finances. This module is an introduction to spreadsheet modelling using Google Sheets where we cover data input, formulas, functions, sort & filter, graphs and charts

Small Basic
Our first introduction to text based programming, building on block based tools covered in the Scratch and Kodu topics, applying the logic skills covered in Flowol. Students use an Integrated Development Environment (IDE) to write code which will include user input, variables, output, arithmetic operations, selection and iteration.

App Design
This topic provides an opportunity for students to apply their design skills along with their programming logic to create an app. Students will decompose a problem, identify the input, outputs and logic required to solve a problem, design a user interface for an app, build an app using a block based programming interface then evaluate the success of a project.

THE COMPUTING WAY

THE COMPUTING WAY — THE SUBJECT WAYS

We respect and look after computer equipment

We use **problem decomposition** to **break problems down into achievable goals**

We use the internet to support our learning

We are not afraid to experiment, using trial / error / undo

We organise our work with suitable filenames & folders

We use formatting skills to make our work presentable

We recognise that computing & IT is vital to careers now & in the future

We listen carefully & make notes during demonstrations

We use technology responsibly & lawfully

We use technology to solve problems

WICKERSLEY PARTNERSHIP TRUST

SUBJECT WAYS

Have your say!

At WPT we're always looking for feedback. If you have any thoughts/opinions on this Curriculum Newsletter, its content or the curriculum in general, please scan the QR code to fill out a short feedback form.

Assessment Points

Students are assessed at the end of each topic, roughly once per half term. Assessments are in a variety of formats including short and long answer written questions, multiple choice questions and practical tasks.

The Computing Way

The Computing Way is designed to help students become young subject specialists and has a key focus on the vital skills needed to achieve their full potential in this subject area.