Computing

Wallace Fields Junior School

Computing: Intent

In line with the 2014 National Curriculum for KS2 Computing, our aim is to provide children with the necessary skills and knowledge to embark on all areas of society when faced with technology.

The curriculum focuses on providing children with the skills required to use and apply computational thinking and creativity to understand and have an impact in our rapidly-changing, modern world.

By the time the children leave Wallace Fields Junior School, we hope the children will have gained key knowledge and skills across the three main areas of the computing curriculum: computer science, information technology and digital literacy.

The three strands are covered across all year groups in KS2 and ensure a solid grounding for future learning beyond for all children.

The full intent statement is on the website alongside the implementation (including a **progression map**) and the impact of Computing.

https://www.wallacefields-jun.surrey.sch.uk/learning/computing

Computing: Implementation

| Compuational Thinking/ Computer Science	Information Technology	Digital Literacy/ E-Safety
Computer Science will introduce children to the understanding of how computers and networks work. It will also give all children the opportunity to learn about computer programming.	Information Technology is about the use of computers for functional purposes, such as collecting and presenting information, or using search technology.	Digital Literacy is about the safe and responsible use of technology, including recognising its' advantages for collaboration and communication.
National Curriculum Requirements:	Children should know how compters can provide multiple services, such as the World Wide Web, and the opportunities they offer for communication and collaboration.	National Curriculum Requirements:
Children should know how to design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems.	National Curriculum Requirements:	Children should be taught to use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.
They should solve problems by decomposing them into smaller parts. Children should be able to use sequence, selection, and repetition in programs; work with variables and various forms of input and output.	They should use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.	At Wallace Fields Junior School, all children are taught: **To use technology safely, respectfully and responsibly; recognise acceptable/ unacceptable behaviour; identify a range of ways to report concerns about content and contact.**
They should use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.	Children should select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.	**All childen are taught:** • How to stay safe on the internet • To know what is right and wrong on the internet. • How to research safely online. • To know what to do if they are ever concerned about anything online.
Children should understand computer networks, including the internet.		
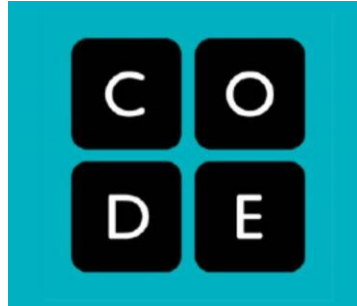
Computing Curriculum:

Digital Literacy – using technology safety and evaluating the safety and reliability of digital content.

Computer Science – programming and coding.

Information Technology – presenting, designing and creating using a range of multimedia.

Computing: Implementation – Computing Lessons

We follow the NCCE guidance.

National Centre for Computing Education

Year 3	Unit	Skills to be covered What should the children be able to do?	Knowledge to be covered What should the children know?	Resources	Key Vocabulary
Information Technology	**Creating Media** Word Processing	• Touch typing to increase speed of input • To be able to insert an image onto a document. • To be confident with the 'shift' key and its' uses. • To know how to insert bullets and numbering to a document. • To be able to cut and paste information, text, pictures or diagrams from one place to another. • Creating a poster in word – *Internet safety – how to report concerns to someone in school*	• To know the features of good page design on Google documents. • To know how to open a Google document. • To know what an image is. • When we would need to 'cut' something. • When we would need to 'paste' something. • What it means to format a picture. • When to use the shift key. • To know what the shift key does.	Google Docs Google Classroom	Document Image Shift Insert File Copy Paste Information Text
	Computing Systems Digital Devices	• To create an 'input, process, output' machine. • To be able to identiy an input device. • To be able to identify a digital device. • To be able to identigy an output device. • To identify the different purposes a device can have. • Create a map of our school network.	• To know what a digital device is. • To know how a digital device works. • To know what an input and output is. • To know what parts make up a digital device. • To understand how digital devices help us. • To understand how digital devices are connected. • To know what a network is. • To know what the school's network looks like.	NCCE Google Docs Paintz.app	Input Process Output Program Digital Device Connection Network
Computer Science	**Coding** Scratch	• To move a sprite on Scratch. • To use motion blocks on Scratch. • To create a sequence of blocks. • To change the appearance of a sprite on Scratch. • To change the backgrop on Scratch. • To create a musial instrument on Scratch. • To use events on Scratch to make a sprite move. • To create a maze on Scratch.	• To know what a sprite is on Scratch. • To know what a backdrop is on Scratch. • To know that you can use blocks to represent commands. • To know what an algorithm is. • To know how simple algorithms work. • To implement an algorithm as a code on Scratch. • To be able to explain what different commands/ algorithms mean. • To know what a motion block is and what it does. • To know what a sound block is and what is does. • To know what happens if you apply the 'event'	NCCE Scratch	Sprite Backdrop Block Command Algorithm Code Motion Sound Event Debug Programming Costume

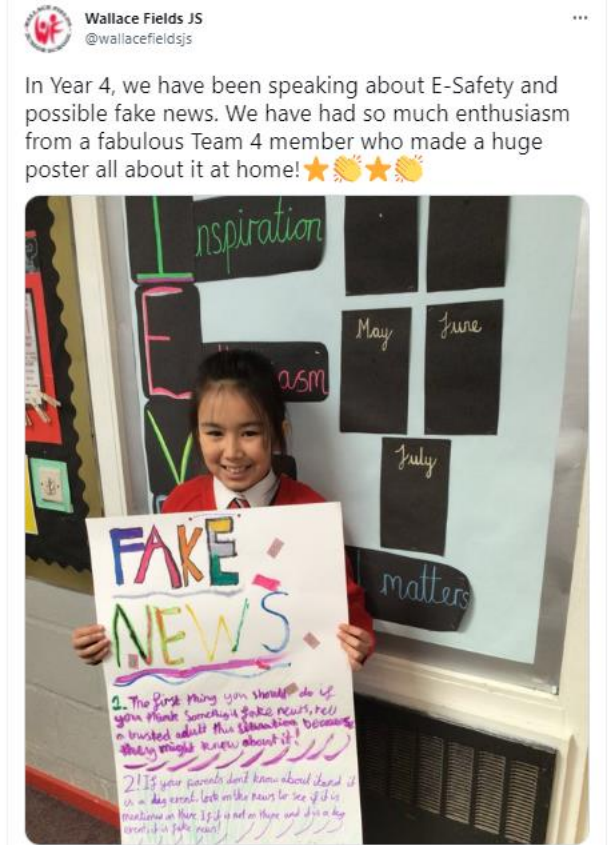# Computing: Implementation – Online Safety

Privacy Online

Managing Online Information

Online Bullying

Online Relationships (key themes – trust, support, respect, boundaries)

Online Identity

Wellbeing Online

PROJECT EVOLVE

NOS National Online Safety®

Computing: Implementation – Online Safety

Internet Safety Day 2022

Computing: Implementation – Cross Curricular

Geography - 22.9.21
Miss Day • Sep 22, 2021

Good afternoon Team 4!

In Geography this afternoon, you have already learnt what a **hemisphere** is and where the **equator** is.

Now, you are going to do some research to find out what hemisphere different countries are in.

Here are your steps to complete this task.
1. Choose a country.
2. Using **Kiddle**, work through the questions on the attached document and answer the questions. There is a challenge if you finish!
3. 'Turn in' your work when the lesson is finished!

We will then print your work and you will be sticking it in your book! 😊

Geography - Wednesday 22...
Google Docs

Science 30.9.21
Miss Sarjeant • Sep 30, 2021

100 points

Thursday 30th September 2021
LQ: Can I investigate different types of wind seed carrier, to see which will carry a seed the furthest distance from the mother plant?

Science 30.9.21
Google Docs

In today's lesson, we used the **Chromebooks**!

Always think: **SMART**
Stay Safe | Don't Meet Up | Accepting Files | Reliable? | Tell Someone
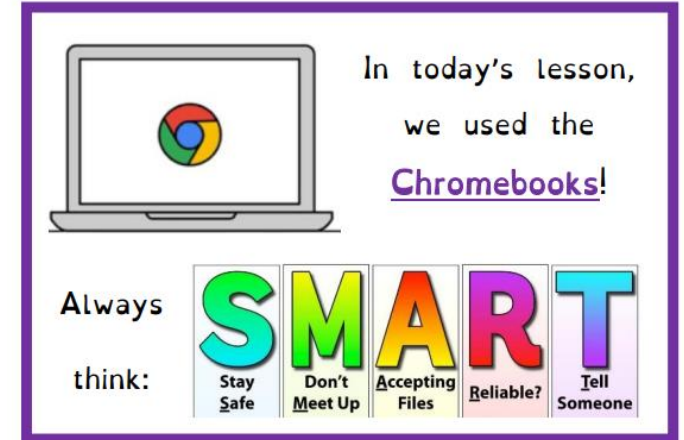
Promotion of Computing across the curriculum.

Each year group are expected to use Computing in at least 2 cross-curricular lessons per half term.

Computing: Impact

Our approach to the computing curriculum generates a fun, engaging and high-quality computing education. The quality of children's learning is evident on Google Classroom, Google Drive and our central shared area. Self-reflection, peer assessment and teacher assessments can be made using all of the above. Evidence from these lessons is used to feed into teachers' future planning, adjustments to challenge opportunities and using the recent remote learning to build upon prior knowledge. This supports varied paces of learning for all pupils and ensures opportunities for good progress is evident for all children. The subject specific knowledge and skills developed in our computing lessons and wider curriculum equip the children with experiences which will benefit them in secondary school, further education and future workplaces. From

Computing: Impact

Assessment is termly. The assessments allow teachers to assess how the children have done in a particular unit of work.

The children's work/ assessments are stored either on the Google Classroom, Google Drive, Computing folders or in relevant books (mostly PSHE or topic based books).

Year 3: for 2021/2022

Term	Autumn	Spring	Summer
Assessment	NCCE paper assessment on Digital Devices (evidence in hard copy Computing file)	Google Doc – poster to show word processing skills (evidence on Google Classroom)	NCCE paper assessment on Scratch (evidence in hard copy Computing file)

Year 4:

Term	Autumn	Spring	Summer
Assessment 1	Canva – poster to show skills (evidence on Google Classroom)	NCCE paper assessment on Coding (evidence in hard copy Computing file)	NCCE paper assessment on The Internet (evidence in hard copy Computing file)

Year 5:

Term	Autumn	Spring	Summer
Assessment 1	Google Slides – presentation on history of computing	NCCE paper assessment on Computing Systems (evidence in hard copy Computing file)	Self-assessment/ reflection on WWW and EBI of podcast (evidence on Google doc on Google classroom or in book)

Year 6:

Term	Autumn	Spring	Summer
Assessment 1	NCCE paper assessment on Spreadsheets (evidence in hard copy Computing file)	NCCE paper assessment on Computing Systems (evidence in hard copy Computing file)	Self-assessment/ reflection on WWW and EBI of website (evidence on Google doc on Google classroom or topic book)

Computing: Impact

Impact of Assessment:

Class teachers are able to access children's work and responses to questionnaire which allow them to make a judgement at the end of the year.

As a **subject leader**, I can reflect on whether the children have understood and applied the skills and knowledge, allowing me to adjust the progression map accordingly.

Computing: Impact

100% of pupils said they enjoyed computing.

Most children recognised that Computing is a key skill in life now, hence why they should learn it in school. Some children highlighted we need to learn about Computing at school to have an awareness of online safety. Few children weren't as sure – this was mainly Year 3 so this will be my target year group going into the summer term.

All children could identify a topic/ something they learnt in Computing lessons.

All children could identify a time where they used Chromebooks in a lesson that was not Computing.

All children could identify the importance of Online Safety.