



COMPUTING

POLICY

INTENT

At Wickersley Partnership Trust (primary) we aim to ensure our Computing curriculum is designed to sequence learning and embed the key skills that are required to develop curious students into competent learners.

We believe that computing is an essential part of the curriculum and should be an integral part of all learning. Computing within schools can provide a wealth of rich learning opportunities and transferable skills explicitly within the computing lesson and across other curriculum subjects.

With technology being at the forefront of development in the current digital climate, we believe 'Computational thinking' is a skill children must be taught if they are to be able to participate effectively and safely in this digital world. Computing has deep links with mathematics, science, engineering, and design and technology, and when taught interwoven with one another can provide pupils with a deeper and broader understanding of the digital world in which they live.

At Wickersley Partnership Trust, the core of computing is Computer Science in which pupils are introduced to a wide range of technology, including chrome books, laptops, iPads and interactive whiteboards, allowing them to continually practice and improve the fundamental skills, knowledge and understanding they learn. This ensures they become digitally literate and resilient so that they are able to express themselves and develop their ideas through information and computer technology and have the essential skills and knowledge required to become active participants in an ever advancing digital world.

It is vital that curriculum knowledge and skills are not learnt in isolation. We teach Computing through the progression of skills and knowledge, both of which are planned in a sequential document and include in this, key lines of inquiry to develop links across the curriculum as well as to the bigger concepts that drive our curriculum intent, such as democracy and equality.

HOW WE INTEND TO REMOVE BARRIERS

To ensure high standards of teaching and learning in computing, we implement a curriculum that is progressive throughout the whole school. Pupils will be able to use ICT Technologies safely and responsibly through accessing the computing curriculum.

The current computing curriculum offers opportunities for Numeracy skills to be developed and oracy skills will be developed through answering questions and engaging in class discussions. Pupils will enhance their literacy skills through the use of technology and develop their confidence in the presentation and development of their learning.

Misconceptions do not go unchallenged and the supportive environment within each and every lesson ensures that each student develops and learns at a pace and a level that is appropriate for them.

LITERACY

Students are given many opportunities to read widely and often with students directed to technological studies as well as researching independently. Pupils take part in learning opportunities with a range of contexts for reading and writing. These will develop from being supported to independent.

NUMERACY

Numeracy is often found at the heart of the computing curriculum. From developing data handling skills to the creation of complex code and programs. The teaching of these skills will allow for progression and development at the appropriate level for the learner. The computing curriculum will also provide opportunity for pupils to apply prior Numeracy skills to their work and improve and develop these skills in a practical and engaging way.

ORACY

In order to develop their oracy within a subject specific context pupils are given opportunities to talk about their learning. Staff will challenge use of key technological and computing language and will direct pupils towards the correct terminology when appropriate ensuring that this vocabulary is used within lessons.

VOCABULARY

Students are introduced to key subject specific vocabulary and have regular opportunities to reinforce their understanding. Key technological vocabulary is highlighted to the pupils and pupils are guided to use this in their work.

HOW WE DEVELOP SKILLS FOR LEARNING

Pupils are given opportunities to develop their skills for learning in each and every lesson. Engaging starter activities help students to recall the key concepts of prior learning. Our pupils are presented with a variety of experiences and learning opportunities.

The computing curriculum provides opportunities for children to develop a range of skills that can be applied across the curriculum. Pupils will develop and improve creative and critical thinking skills when designing and creating digital media products (posters, interactive slideshows, videos, photography etc.). Throughout the teaching of coding, children will be encouraged to think analytically when debugging algorithms and identifying errors. Through the writing of programming code, pupils will develop logical and computation thinking skills.

Schools will use a range of different resources and software to develop this skills and knowledge, including a range of whole-class, small group and independent sessions where children can learn and apply these skills. Examples of these resources include Laptops, Chromebooks, iPADS and Scratch programming software.

Teacher assessment informs planning and progression within the curriculum.

HOW WE FOSTER PERSONAL ATTRIBUTES

In Computing, our curriculum intent embodies that of the school. We are committed to ensuring students are exposed to the wider world context in order to develop them as well rounded individuals. Our curriculum demands independence, resilience and responsibility in line with the SCHOOL Way.

Pupils are taught to use ICT equipment safely and responsibly, and the impact of the choices that they make when using technology can have on the wider world. We aspire for all our students to use Computing in a positive and confident way; to demonstrate empathy, tolerance, understanding, aspiration and respect so they are prepared to be active citizens in the local community and beyond. Pupils will develop independence skills by undertaking and completing Digital Media projects. Independence and Resilience skills will also be developed by students learning how to program code. Overall, students will be able to develop fundamental ICT skills which will allow them to become active participants in the current digital world and provide the essential skills required to continue the development of these skills at KS3.

HOW WE INTEND TO ENRICH STUDENT EXPERIENCES AND BROADEN THE HORIZONS OF STUDENTS

Computing is a curriculum that must go beyond the classroom. To this end we broaden the horizons of all our students and enrich their learning through a range of first hand experiences. All our students have exposure to learning beyond the traditional mainstream lesson and have opportunities to enrich their experiences. Computing is planned as a discrete subject.

SUBJECT INTENT: It is vital that curriculum knowledge and skills are not learnt in isolation. We teach ICT through the progression of skills and knowledge, both of which are planned in a sequential document and include in this, key lines of enquiry to develop links across the curriculum as well as to the bigger concepts that drive our curriculum intent, such as democracy and equality.

		EYFS	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
SKILLS AND KNOWLEDGE	Impact on Humans- Technology in our lives	What is technology?	How does technology help us at home? What is a website?	What technology do we see in our local area? How does it help people? What is a website used for?	How is technology used to improve human life? What is the World Wide Web? How is it used?	Why does technology advance? How is the World Wide Web used/misused? Who makes/maintains websites?	How has technological developed improved/impacted the world? How can you identify a trust worthy website? What are your rights when online?	What world wide issues has technology solved/created? What negative impacts has the ever developing technological world had on the earth? What is copyright? What are your legal/human rights when online?
		I know what technology we use at home and how it helps us.	I know what technology we use at home and school and how it helps us. I know what a website is.	I know that my local area has a range of technology. I know how technology helps people. I understand what a website is.	I know how technology is used to improve human life. I know what the World Wide Web is and how it is used.	I know how technology is used to improve human life. I know why technology advances. I know what the World Wide Web is and how it is used/misuses. I know who makes and maintains websites.	I know how technology has developed and can give an example of how advancements have impacted on the world, including the World Wide Web. I know how to identify trustworthy websites.	I know how technology has developed and can give examples of how advancements have impacted on the world, and the issues they have solved/created. I know what copyright is.
	Significant People	Who is? Benjamin Franklin - electricity	Who is ? John Logie Baird - first coloured TV Vladimir Kosma Zworykin- first TV	Who is ? Alexander Bell - telephone	Who was...? Why were they important? Robert E.Kahn and Vint Cerf - 'fathers of the internet' Sir Tim Berners-Lee - WWW	Who was...? Why were they important? Bill Gates - Microsoft Steve Jobs and Steve Wozniak - Apple	Who was...? Why were they important and what impact did they have? Alan Emtage - Archie (first search engine) Larry Page and Sergey Brin- Google (most popular search engine)	Who was...? Why were they important and what impact did they have? Charles Babbage - first programmable computer Alan Sugar - Amstrad and IBM
		I know who ... was	I know who ... was and say when they lived	I know who ... was, when they lived and know 3 thing they did	I know who ... was, when they lived and can say why they are important	I know who ... was, when they lived and can say why they were important at the time and today	I know who ... was, when they lived and can say why they were important at the time and how they influence today.	I know who ... was, when they lived and can say why they were important at the time, how they were viewed by society and their impact
E-safety	I know when to tell an adult when something worrying or unexpected happens while I am using the internet	I know when to tell an adult when I see something unexpected or worrying online. I know why it is important to be kind and polite online.	I can describe the things that happen online that I must tell an adult about. I know why it is important to be kind and polite online and in real life.	I can act appropriately when something worrying or unexpected happens online and report concerns to an adult. I can make positive comments online.	I can use the safety features of websites as well as reporting concerns to an adult. I comment positively and respectfully online.	I can explain why I need to protect myself and my friends and the best ways to do this, including reporting concerns to an adult. I can explain the important of communicating kindly and respectfully.	I can support others to protect themselves and make good choices online, including reporting concerns to an adult. I can explain the consequences of sharing too much about myself online. I can explain the consequences to myself and others of not communicating kindly and respectfully.	
Programming	I can use simple instructions to make a floor robot move I can make choices about the buttons and icons, I press, touch or click on.	I can give instructions to my friend and follow their instructions. I can describe what actions I will need to do to make something happen. I can begin to use software/apps to create movement and patterns on a screen.	I can give instructions to my friend and physically follow their instructions. I can tell you the order I need to do things to make something happen and talk about this as an algorithm. I know how to program a robot or software to do a particular task.	I can put programming commands into a sequence to achieve a specific outcome. I can create an algorithm I will need for a simple program. I can use repeat and loop commands. I know how to identify the error in an algorithm.	I can put programming commands into a sequence to achieve more than one outcome. I can create an algorithm that could be used to sequence more complex programs. I can use a variety of tools to create a program. I know how to recognise an error in a program and debug it.	I can refine an algorithm/program by using repeat command and variables. I can change an input to a program to achieve a different output. I know how to use logical reasoning to select an action.	I can de-construct a problem into smaller steps, recognising similarities to solutions used before. I can use a variable and operators to stop a program. I know how to use logical reasoning to detect and correct errors in an algorithms and programs.	

I know how to move objects on a screen
 I can create shapes and text on a screen
 I can take photographs/videos using digital devices

I know how to select the appropriate program to present my work.
 I can use the keyboard or a word bank on my device to enter text.
 I can save information to a specific location.
 I can talk about the different ways in which information can be shown

I know how to use technology to organise and present my ideas in different ways.
 I can use the keyboard on my device to add, delete and space text for others to read. I can save and open files on the device I use. I use technology to collect information, including a camera, microscope or sound recorder. I can sort different kinds of information and present it to others.

I know how to create, modify and present documents for a particular purpose.
 I can use a keyboard confidently including short-cut commands.

I know how to combine a mixture of text, graphics and sound to share my ideas and learning for a particular purpose. I can use a keyboard confidently and make use of a spell-checker to write and review my work. I can collect data and organise it in different ways. I can plan, create and search a database.

I know how to use text, photo, sound and video editing tools to refine my work. I can use the skills I have already developed to explore content. I can select, use and combine the appropriate technology tools to create different effects. I can present data in an appropriate way.
 I can search a database using different operators to refine my search.

I know how to combine a range of media, recognising the contribution of each to achieve a particular outcome.
 I can use the skills I have already developed to create content using unfamiliar technology. I can select, use and combine the appropriate technology tools to create different effects that will have an impact on others. I can interrogate a database.