



*'Working and growing together'*

## Computing Policy 2020 -2021

Date	Review Date	Subject Leader
September 2020	JULY 2021	Adam Stockhill

### Introduction – Preparing for a Digital Britain

At Fitzwilliam Primary School, we understand the importance of technology in a rapidly changing society. As it has always been, the children of today will develop and use the technologies of tomorrow. Therefore, we need to foster their basic knowledge and understanding of the technologies that they use today. We acknowledge that the children that are within our school are native to the opportunities provided by technologies such as tablets, computers and smartphones. Consequently, we must work to ensure that they put these opportunities to good use, in order for them to live happy, safe and successful lives.

#### 1. Curriculum Intent

The intent of our computing curriculum is to deliver a curriculum which is accessible to all and that will maximise the development of every child's ability and academic achievement in this subject. The subject leader has identified key intentions for our computing curriculum. These are:

**Intention 1: To ensure that children access an engaging and effective curriculum that develops pupil's knowledge and understanding of ICT and computer science in line with the National Curriculum.**

**Intention 2: To prepare pupils to live safely in an increasingly digital British society.**

## 2. Curriculum Implementation and Impact

The 2 subject intentions are used to drive curriculum implementation alongside appropriate evaluated educational research. The school implements the computing intentions in the following way:

Intent	Research link	Implementation	Impact
<p>To ensure that children access an engaging and effective curriculum that develops pupil's knowledge and understanding of ICT and computer science in line with the National Curriculum.</p>	<p><b>Education Endowment Fund research indicates that</b> digital technology, where learners use programmes or applications designed for problem solving or open-ended learning, is associated with moderate learning gains (4 months progress on average).</p>	<p><b>Pupils at Fitzwilliam Primary School have:</b></p> <p><b>Access to resources which aid in the acquisition of skills and knowledge.</b></p> <p>Children have access to the hardware (computers, tablets, programmable equipment) and software that they need to develop knowledge and skills of digital systems and their applications.</p> <p><b>Access to quality first teaching within the strands of Digital Literacy, Information and Communication Technology and Computer Science.</b></p> <p>Computing is taught every week in every year group throughout the academic year. Teachers, through effective assessment, adapt provision to meet the individual needs within their class.</p> <p><b>A learning environment that enriches, promotes and celebrates learning within the strands of Digital Literacy, Information and Communication Technology (ICT) and Computer Science.</b></p> <p>Computing within the curriculum is evident in classrooms and around school.</p>	<p><b>Children will be confident users of technology, able to use it to accomplish a wide variety of goals, both at home and in school.</b></p> <p><b>Children will be able to show this in their work and in discussion.</b></p>
<p>To prepare pupils to live safely in an increasingly digital British society.</p>	<p><b>Department for Education research outlines that</b> education providers must focus on the underpinning knowledge and behaviours that can help pupils navigate the online world safely and confidently, regardless of device, platform or application: factors which are constantly changing.</p>	<p><b>Pupils at Fitzwilliam Primary School have:</b></p> <p><b>Access to resources which aid in the acquisition of skills and knowledge.</b></p> <p>Children have access to the hardware (computers, tablets, programmable equipment) and software that they need to develop knowledge and skills of digital systems and their applications.</p> <p><b>Access to quality first teaching within the strands of Digital Literacy, Information and Communication Technology and Computer Science.</b></p> <p>Computing is taught every week in every year group throughout the academic year. Teachers, through effective assessment, adapt provision to meet the individual needs within their class.</p> <p><b>A learning environment that enriches, promotes and celebrates learning within</b></p>	<p><b>Children will have a secure and comprehensive knowledge of the implications of technology and digital systems. This is important in a society where technologies and trends are rapidly evolving.</b></p> <p><b>Children will be able to apply the British values of democracy, tolerance, mutual respect, rule of law and liberty when using digital systems.</b></p> <p><b>Children will be able to show this in their work and in discussion.</b></p>

		<p><b>the strands of Digital Literacy, Information and Communication Technology and Computer Science.</b> Computing within the curriculum is evident in classrooms and around school.</p> <p><b>Opportunities to apply their learning across the curriculum.</b> Opportunities for the safe use of digital systems are considered in wider curriculum planning.</p> <p><b>Clear parental Communication</b> Parents are informed when issues relating to online safety arise and further information/support is provided if required.</p> <p><b>Opportunities to explore the concept of online safety</b> Digital literacy and online safety will be the central focus of teaching at the beginning of every academic year. In addition, the school will celebrate Safer Internet Day in the Spring Term of the academic year.</p>	
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In Computing, like all other subjects, we recognise the importance of the methods and practice of teaching (the pedagogy) we choose to use in enabling pupils to know more, understand more and remember more.

In Computing, the following approaches will be used, and be evident in pupil discussion, observations and work in books, in order to ensure that the Computing learning opportunities are as effective as possible and that pupils progress throughout the year and across year groups during their Computing experiences in school:

<p><b>Teaching Sequence in Computing:</b></p>	<p><b>Big picture: Look at and recap previous knowledge/skills that are relevant to the new learning.</b></p>
	<p><b>Provide realistic and relevant information.</b></p>
	<p><b>Specify key vocabulary to be used and its meaning.</b></p>
	<p><b>Provide opportunities for the children to work interactively with the teacher acting as the facilitator.</b></p>
	<p><b>Individual reflection on the learning.</b></p>

<b>Possible pedagogical approaches used in Computing:</b>	<b>Behaviourism</b>	<b>Direct teacher instruction; modelling of skills and techniques; demonstration</b>
	<b>Constructivism</b>	<b>Inquiry-based learning</b>
	<b>Social Constructivism</b>	<b>Teacher modelling; questioning; mix of individual, paired and group instruction</b>
	<b>Liberationism</b>	<b>Pupil-led learning; opportunities</b>
	<b>Learning, working and talking about Computing:</b>	<b>Being introduced to the key vocabulary relating to Computing so that all children can confidently articulate their ideas, knowledge and skills within the three strands of digital literacy, information technology and computer science.</b>

### 3. Roles and Responsibilities

The role and responsibilities of the Computing leader is to:

- allocate and monitor the effective use of resources within a delegated budget;
- monitor standards to ensure high quality teaching and learning. This may include pupil discussion, work scrutiny, lesson observation and moderation of work;
- involve staff in the development of the subject within school;
- keep staff informed of developments within computing;
- ensure the school follows National Curriculum guidelines;
- evaluate the needs of the school and develop plans to meet those needs;
- support the needs of staff in regards to computing;
- evaluate and promote appropriate use of software by children;
- provide technical support as appropriate;
- promote a positive attitude to computing across school;
- integrate new computing resources into the curriculum and train staff to ensure confidence in their use;
- liaise with external groups and individuals in relation to standards in the subject;
- be accountable for the standards within the subject.
- To work with members of the senior leadership team to ensure the safe implementation of the subject during the Covid-19 Pandemic.

The role and responsibilities of class teachers is to:

- identify opportunities to embed computing across the curriculum as appropriate;
- ensure at least one hour per week of curriculum time is dedicated to teaching the Computing Curriculum;
- provide opportunities for all pupils to use a range of equipment and software in the classroom and across school;
- ensure reasonable adjustments are taken to ensure all pupils can access the computing curriculum;
- evidence teaching and learning as appropriate to the School Curriculum (written work, electronic work, planning);
- Make informed judgements of pupil attainment in computing;
- To comply with systems that ensure pupil and staff safety during the Covid-19 Pandemic.

#### **4. E-safety**

E-safety relates to the challenges and risks that digital technologies can pose to children. At Fitzwilliam Primary School, we strive to ensure that this issue is seen as one of great importance by our pupils. To reflect this, every year group across school spends at least one half term focusing on online safety with their teacher. Furthermore, we may carry out other activities such as Safer Internet Day and assemblies to help ensure that pupils understand the issue of e-safety. We also provide e-safety guidance to parents on our website, including specific information revolving around smartphones and online gaming platforms.

The issue of e-safety is reflected in practice in all areas of Computing at Fitzwilliam Primary School.

#### **5. Examples of Good Practice in the Teaching of Computing**

- Children in each class will be taught during an allocated one hour slot every week. This may be subject to change during the Covid-19 Pandemic.
- At the start of every lesson, teachers review prior learning and vocabulary in order to make links to new learning.
- Teachers make sure of an 80/20 balance of pupil talk/work to teacher talk.
- Pupils are encouraged to experiment with new skills in order to develop further understanding.
- In relation to this, teachers provide consistent verbal feedback in order to help pupils improve their knowledge and skills.
- Where possible and meaningful, teachers plan opportunities to apply skills learned in Computing across the wider school curriculum.
- At the start of each academic year, every child will sign a whole-class e-safety agreement. This will be displayed in the computing suite.

- The first unit of work per year group is always focused on e-safety.
- Children's desktop backgrounds will display the school rules for e-safety (appendix 1).
- In lessons where pupils will be going on the internet, teachers always briefly recap the school rules for e-safety (appendix 1).
- The computing curriculum covers the strands of computer science, information technology and digital literacy (exemplified in appendix 2).
- Pupils will work on Computers, Ipads and in their Computing Journals. Pupils are encouraged to regularly review their previous work to refresh their memory of previous learning. This way, they are more likely to retain skills and knowledge in their long term memory.

## **6. Computing Across the Curriculum**

In order to prepare pupils for using technology in the wider world, we actively encourage them to make use of digital systems to aid their wider learning. This allows children to apply their computing knowledge and skills to new contexts, reinforcing said knowledge and skills. This could range from word processing a piece of writing in literacy to creating a video or animation to show learning in history. It is the role of class teachers to find these opportunities wherever they may arise in their planning.

## **7. Reasonable Adjustments in Computing**

As a curriculum leader in Computing, I recognise the importance of ensuring that children with identified Special Educational Needs and/or Disabilities have access to an ambitious Computing curriculum. Within this curriculum area, SEND children will be provided with reasonable adjustments through their learning tasks and level of challenge provided. Advice can be sought from the school's SENDCO where applicable.



## TO BE SAFE WHEN USING THE INTERNET, WE WILL...

**Explore the Internet only when an adult is with us.**



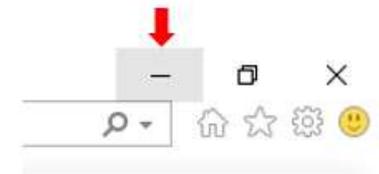
**Never give out personal information or passwords.**

Password

**Only click on buttons, icon or links when we know what they do.**



**Minimise the program and tell an adult if we find something that upsets us.**



## TO BE SAFE WHEN USING THE INTERNET, WE WILL...

**Explore the Internet with the permission of an adult.**



**Never give out our own or others' personal information and passwords.**

Password

**Only use apps, programs and webpages that have been approved by an adult.**



**Minimise the program and tell an adult if we find something that upsets us or makes us feel uncomfortable..**



**Year 4**

<b>Term</b>	<b>Unit</b>	<b>Strand/Focus</b>
<b>Autumn 1</b>	<b>Online Safety</b>	<b>Digital Literacy</b> <i>-Cyberbullying</i> <i>-Using search engines accurately.</i> <i>-Plagiarism</i> <i>-Creating safe online profiles.</i>
<b>Autumn 2</b>	<b>Word Processing</b>	<b>Information Technology</b> <i>-Formatting images</i> <i>-Spellcheck</i> <i>-Inserting and formatting tables</i> <i>-Page layout</i> <i>-Hyperlinks</i>
<b>Spring 1</b>	<b>Scratch: Questions and Quizzes</b>	<b>Computer Science</b> <i>-Decomposing a program</i> <i>-Sequence and selection</i> <i>-Variables</i>
<b>Spring 2</b>	<b>Animation</b>	<b>Information Technology</b> <i>-Digital 2D animation</i> <i>- Stop motion Animation</i>
<b>Summer 1</b>	<b>Programming Turtle Logo</b>	<b>Computer Science</b> <i>-Setpos</i> <i>-Colours</i> <i>-Fill</i> <i>-Text</i> <i>-Creating arcs.</i>
<b>Summer 2</b>	<b>Film Making</b>	<b>Information Technology</b> <i>-Recording and editing video using iMovie, using features such as transitions and filters.</i>