Our Approach to Teaching Computing

At Whitehall Junior School, we are committed to providing our pupils with a well-rounded education. Our curriculum is planned in a logical and well-considered way, to enable pupils to build upon their skills and have a secure knowledge base from which connections in learning are made. We use 'beautiful' resources from credible sources to enrich our lessons.

What is the big picture for computing? Familiarising children with computers and how to operate them. Increasing children's awareness of the risks and responsibilities being online. Teaching children how technology can enhance their learning and creativity.
What is magical about it? Technology can be used to enhance and develop learning and be creative. It provides opportunities for children to programme and to create music, images and publish the written word. Technology usage will be a significant factor in many areas of our pupils' childhood and wider adult lives. Computing can be a tool which enables access to learning otherwise difficult for some children. For example, aiding children with dyslexia, impaired vision or motor control to write. Using the internet is like opening a door into an infinite world of knowledge.
Why is computing an important subject to learn? Computing skills are needed for effective, safe and responsible technology usage. Skills are needed for all workplaces. Computing offers the opportunity to enhance critical thinking. It enables the development of creative digital skills.
What do we love about computing? It provides access to tools that can improve our knowledge and with this, we can format information in interesting ways. We can also learn at our own speed and develop independent study skills.
How do we want our pupils to talk about computing? With a passion and enthusiasm for what the future could look like! How digital technology can enhance society, whilst being mindful of its dangers and limitations. Computers help me to present my ideas clearly. This programme helped me to understand... I created a game that works like this…. When I do this, this happens…

Our approach to teaching computing:	
Lesson 1	Lesson 1 **assesses prior knowledge**, **hooks the interest** of learners, teaches key **vocabulary** and gives children a chance to **explore** the new software they will be learning with. 1) We start by briefly introducing the new topic by displaying deliberately chosen key vocabulary and visuals to orient and excite the children. 2) We then assess children's prior knowledge through a KWL (Know, Want to know, Learnt) task. This is kept throughout the duration of the unit and reviewed at the end. The children will write things they already know about the unit and what they are curious to find out about as the unit progresses. 3) The children will be introduced to 8 – 10 key vocabulary words for the unit. They will record what they think each word means. They will then write the 'actual meaning' alongside this once feedback happens with the class. 4) Teachers will demonstrate the software used in the new unit, highlighting a few interesting skills that can be explored by children.

	5) Children will be given a chance to explore the tools used in this unit. 6) As a plenary activity, children will create a shared class AFL of the skills they are hoping to learn from this unit. These will be referred to throughout.
Lesson 2	Lesson 2 re-teaches the 8-10 key vocabulary words and begins to explicitly teach new skills with **guided practice**. 1) Children are called to recall the meaning of the 8-10 key vocabulary words. The teacher then corrects misconceptions and explicitly teaches the meaning of these words using interactive techniques (such as call and response). 2) The lesson objective is then introduced and the teacher should link this to the vocabulary and focus targets for the year group. 3) This lesson is very much guided skills practice. The teacher will demonstrate skills the children should imitate. 4) As a plenary, children individually note what they have learnt so far and what they hope to develop further, building connections with previous learning.
Lesson 3+	Lesson 3 onwards **quizzes** children on key vocabulary to aid their recall**. Online safety** is discussed throughout the lesson or in starters. **New skills are taught explicitly and sequentially** with visual aids or modelling available at all stages. However, the emphasis should be on **critical thinking and creativity** from the children. Children **review** their learning each lesson. 1) The lesson 3 starter should relate to online safety. Children discuss this topic in relation to our Education for a Connected World overview and objectives, such as: passwords, safe browsing, managing data, copyright and online reputation. 2) Through a fun and interactive style, such as a quiz, children are challenged to recall the meaning of key vocabulary terms and the purposes behind new skills. 3) The main lesson objective is introduced and the teacher should link this to specific outcomes for the year group. 4) A new skill is introduced by the teacher and children are given a chance to trial it. 5) A task is set where children are challenged to think critically. These will be 'low threshold, high ceiling' tasks, where learners are all provided with enough support to be successful, however, children are not held back and can create impressive outcomes. 6) Children review their learning by answering a critical thinking AFL (Assessment For Learning) question.
Lesson Y	In the penultimate lesson of the unit, the focus is on creating a lasting piece of 'beautiful work' that the children can keep as tangible proof to demonstrate their learning. This may be a piece of coding to satisfy a task; a piece of online music or artwork; a document or PowerPoint. The children's final piece will be saved on the Google Classroom for ease of access for children and teachers.
Lesson Z	In this final lesson the children **review** their learning and **reflect upon their progress**. 1) A final recall quiz for key vocabulary, reflection on new knowledge and skills. 2) Children revisit their KWL grid. They answer the questions they wrote at the beginning of the unit and fill in the 'Learnt' column. 3) Finally, in small groups, children create a guide to the unit aimed at children who will be in their year next year. This enables them to solidify new learning and revisit the knowledge gained.