Computing Curriculum Delivery Document

Intent	At Girnhill, we provide children with a high-quality computing curriculum which equips pupils with the skills and knowledge in order to use computational thinking and creativity to change the world. Computing is taught through the ambitious National Curriculum and the Early Years Foundation Stage Framework, enhanced and supplemented with the use of Barefoot Computing resources and TEACH computing curriculum to support staff to plan small progressive steps in a specific coherent teaching sequence. The computing curriculum provided at Girnhill Infant School is planned using the three strands of computing: Computer Science, Information Technology and Digital Literacy. We are ambitious in our expectations of all pupils, ensuring cross curricular links are made to develop children holistically. We map the National Curriculum and Early Years Foundation Stage Framework for computing into a coherent and sequential progression model that outlines the substantive knowledge, disciplinary knowledge, vocabulary and sentence stems needed at each stage that will build cumulatively towards learners being able to use and apply their knowledge, skills and understanding across a range of computational concepts, making purposeful links. At Girnhill Infant School, oracy is a powerful tool for learning; by teaching children to become more effective speakers and listeners we empower them to better understand themselves, each other and the world around them. Vocabulary is purposeful and progressive to allow children to develop their expressive language and leave school being able to articulate their understanding of computing using the four strands of good talk. Technical tiered vocabulary is modelled through flashcards and teacher talk using 'my turn, your turn'. Sentence stems are used to provide children with a model of how to speak like a computational thinker and scaffold their talk effectively. Questions are carefully planned in advance to target pre-empted misconceptions, address gaps in learning and enable children to develop their explanations of computational concepts.
Implementation	We ensure that all teachers, including those who are non-specialists, have excellent subject knowledge and are supported in the implementation of the curriculum by the Digital Champion. Oracy is woven throughout computing as detailed in the progression grid. The progression grid outlines the oracy expectations of each year group within the four strands of good talk. It also includes the tiered technical vocabulary all learners need to acquire and use in order to talk like a computational thinker. This will be modelled using flash cards, teacher talk using 'my turn your turn' and opportunities are made for children to practice using the vocabulary throughout lessons in both guided and independent practice. Suggested sentence stems are provided and used in order to scaffold responses. Opportunities for children to practise the skill of presentational talk will be further developed in computing through the use of mode B learning such as creating group presentations

or building a computer game using knowledge of coding. Through using Rosenshine's principles, learners have the opportunity to revisit and build on prior knowledge. Daily review is used at the beginning of every session in order to activate prior learning to attach new learning to. High-quality modelling of skills and language is offered to our children and scaffolds are provided for difficult tasks. Visual success criteria is provided for learners every lesson. Classroom working walls and knowledge organisers demonstrate prior learning, promote the vocabulary specific to current learning, worked modelled examples, success criteria and visual sentence stems.

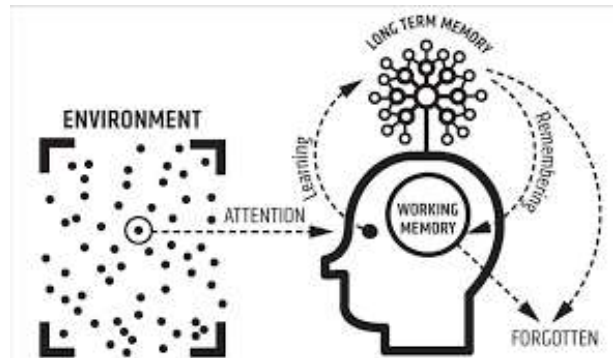| What do our lessons look like?			
Introduction	**Teacher Input**	**Pupil Activity**	**Ongoing Assessment**
Daily review	Introduce key vocabulary	Guided student practice	Questioning
	Present new materials using small steps	Independent practice	Check for understanding and address misconceptions
	Provide models	Use of scaffolds where needed	Reviews
	Provide scaffolds	Obtain high success rate	Daily, monthly, weekly reviews

How do we ensure that knowledge gained is transferred from the working memory into the long-term memory?

Rosenshine's principles in action (bridging research and classroom practice) is providing support and strategies to secure pedagogical understanding for staff.

Principles identified	What do we expect to see in our Computing lessons?
Daily Review	Daily review is used at the beginning of every computing lesson to activate previously taught skills, vocabulary and knowledge. Examples of this include: think, pair, share; call and response; flashcards of previously taught vocabulary; Google Jamboard and Padlet
Questioning	A variety of key questions are individually planned by teachers prior to delivering the lessons, using the computing progression grid. The questions progress through the units of work encouraging children to 'dive deeper' with their answers. Staff will also encourage 'say it again better' where applicable and use techniques such as cold calling, 'tell me how and why' and think, pair, share to ensure ALL children have opportunity to answer and subject specific language when responding orally. Hinge questions are used as a method of formative assessment allowing staff to check understanding and address misconceptions. Sentence stems are used to scaffold children's responses, these are both verbal and visual and are present for children to refer to throughout each lesson.
Sequence concepts and modelling	Modelling is provided by the teacher, support staff and peers. These models are high-quality and repeated many times with the children in different ways. Children are given time to practise the application of skills for as long as needed, through both guided and independent practice. Teachers model the subject specific vocabulary and sentence stems needed to answer questions and share ideas and opinions. Lesson plans are progressive, but broken down into small steps to support the acquisition of knowledge in to long term memory. Scaffolds are used to support all children in achieving the learning objective This might be in the form of adult support, displayed vocabulary and knowledge and sentence stems. Visual success criteria is provided for learners every lesson and this is dual coded with symbols to aid understanding for ALL learners.
Stages of practice	Close supervision during guided practice from the staff. Providing instant feedback to learners. Time for independent practice when the learners are ready to use and apply their skills, knowledge and understanding.