Computing Golden Threads and Sticky knowledge

Golden Threads:

- Digital Literacy: Are responsible, competent, confident and creative users of information and communication technology.
- Information Technology: Can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems.
- Computer Science: Can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation and can analyse problems using these.

Sticky Knowledge linked to the Golden Threads

Buttercups – Reception

	Autumn	Spring	Summer
Digital Literacy	Recognising that a range of technology is used in places such as homes and schools	When using the internet alongside an adult, or independently, learning what to do if they come across something that worries them or makes them feel uncomfortable	Learning to log in and log out
Information Technology	Using a simple online paint tool to create digital art	Participating in group image searches, led by the teacher	Representing data through sorting and categorising objects in unplugged scenarios
Computer Science	Learning how to explore and tinker with hardware to develop familiarity and introduce relevant vocabulary	Using logical reasoning to read simple instructions and predict the outcome	Learning that an algorithm is a set of instructions to carry out a task, in a specific order

Poppy – Year 2

	Cycle 1			Cycle 2		
Digital Literacy		Understanding that personal			When using the internet to search	

		information should not be shared on the internet.			for images, learning what to do if they come across something online that worries them or makes them feel uncomfortable	
Information Technology	Developing word processing skills, including altering text, copying and pasting and using keyboard shortcuts					Learning how computers are used in the wider world Identifying where digital content can have advantages over paper when storing and manipulating data
Computer Science			Understanding what a computer is and that it's made up of different components	Learning what decomposition and abstraction is		

Willow – Year 3/4

	Cycle 1			Cycle 2		
Digital Literacy		Learning to be a responsible digital citizen; understanding their responsibilities to treat others			Recognising that information on the Internet might not be true or correct and that some sources are more	

		respectfully and recognising when digital behaviour is unkind			trustworthy than others	
Information Technology				Build a webpage and content	Understand how search engines work.	Understanding the vocabulary associated with databases: field, record, data
Computer Science	Learning what a network, server and router does	Using decomposition and systematic approaches to explore code and algorithms to reason and create more specific versions	Understand code beneath websites			

Oakwood - Year 5/6

	Cycle 1			Cycle 2		
Digital Literacy		Considering their digital footprint and online reputation and future implications they may have			Learning about online bullying and where to seek advice	
Information Technology	Using logical thinking to explore software		Understanding how apps can access our personal	Learning about the Internet of Things		

	independently, iterating ideas and testing continuously		information and how to alter the permissions.	and how it has led to ‘big data’.		
Computer Science		Understanding the fetch, decode, execute cycle		Recognising that computers transfer data in binary and understanding simple binary addition		Debugging quickly and effectively to make a program more efficient