Dothill Progression Mapping

Computing

Respect   Happiness   Responsibility   *Creativity*   HONESTY   **Enthusiasm**   Confidence   Kindness   **Cooperation**   *fairness*

	Year Three	Year Four
Substantive knowledge **Computer science** (Algorithms and programming, data, systems)	✓ I know what is meant by debugging. ✓ I know what repetition is. ✓ I know that 'scratch' is a programming environment. ✓ I know the difference between an infinite loop and a count-controlled loop.	✓ I know what is meant by debugging. ✓ I know what repetition is. ✓ I know what a sequence of instructions entails. ✓ I know the difference between an infinite loop and a count-controlled loop.
Substantive knowledge **Information Technology** (Digital artefact and computing contexts)	✓ I know how to identify input and output devices. ✓ I know how digital devices can change the way that we work. ✓ I know how digital devices can be connected. ✓ I know how text and images convey information. ✓ I know that text and layout can be edited. ✓ I know how different layouts can suit different purposes.	✓ I know how networked devices make up the internet. ✓ I know how content can be added and accessed on the World Wide Web (WWW). ✓ I know how the content of the WWW is created by people. ✓ I know the difference between text and images. ✓ I know what copy means. ✓ I know what paste means. ✓ I know that sound can be recorded. ✓ I know the difference between the input and output devices used to record and play sound. ✓ I know what a podcast is.

Substantive knowledge **Digital literacy** (Mechanics, searching/ selecting information, and e-safety)	**Computing systems and networks: Connecting Computers** ✓ I know how digital devices function. **Self-image and identity** ✓ I know what is meant by the term 'identity'. **Online reputation** ✓ I know why you need to be careful before sharing anything personal. **Health, well-being and lifestyle** ✓ I know what is meant by a healthy balance online. **Managing online information** ✓ I know what autocomplete is. ✓ I know that the internet can be used to sell and buy things. ✓ I know the difference between a 'belief', an 'opinion' and a 'fact'. ✓ I know that not all opinions shared may be accepted as true or fair by others.	**Computing systems and networks: The Internet** ✓ I know that the internet is a network of networks. ✓ I know that the World Wide Web is part of the internet which contains websites and web pages. **Online bullying** ✓ I know different ways people can be bullied through a range of media (e.g. image, video, text, chat) ✓ I know when someone is upset, hurt or angry online. **Online relationships** ✓ I know strategies for safe and fun experiences in a range of online social environments (e.g. livestreaming, gaming platforms) **Privacy and security** ✓ I know that internet use is never fully private and is monitored, e.g. adult supervision. ✓ I know what the digital age of consent is and the impact this has on online services asking for consent. **Copyright and ownership** ✓ I know not to use content without permission from the owner, e.g. videos, music, images.
Disciplinary knowledge **Computer science** (Algorithms and programming, data, systems)	✓ I can make design choices for my artwork. ✓ I can combine sound commands. ✓ I can build a sequence of commands. ✓ I can give basic logo commands. ✓ I know how to move a screen turtle.	✓ I can program a computer by typing commands. ✓ I can explain the effect of changing a value of a command. ✓ I can write an algorithm to produce a given outcome. ✓ I know how to refine the algorithm in my design. ✓ I know how to identify repetition in everyday tasks. ✓ I can explain the relationship between an event and an action. ✓ I can develop my program by adding features.
Disciplinary knowledge **Information Technology** (Digital artefact and computing contexts)	✓ I can explain how a computer network can be used to share information. ✓ I can recognise the physical components of a network. ✓ I can choose appropriate page settings. ✓ I can add content to a desktop publishing publication. ✓ I can consider the benefits of desktop publishing.	✓ I can plan and record appropriate content for a podcast. ✓ I can edit, trim, and align voice recordings. ✓ I know how to combine sound effects, background music and existing voice recordings. ✓ I can describe how networks physically connect to other networks. ✓ I can outline how websites can be shared via the World Wide Web (WWW). ✓ I can evaluate the consequences of unreliable content.

Disciplinary knowledge **Digital literacy** (Mechanics, searching/ selecting information, and e-safety)	✓ I can identify input and output devices. ✓ I can explain how a computer network can be used to share information. ✓ I can recognise the physical components of a network. ✓ I understand why someone might change their identity depending on what they are doing online (e.g. gaming; using an avatar; social media) and why ✓ I can give examples of what anyone may or may not be willing to share about themselves online. ✓ I can explain the need to be careful before sharing anything personal. ✓ I can explain simple guidance for using technology in different environments and settings e.g. accessing online technologies in public places and the home environment. ✓ I know how to use key phrases in search engines to gather accurate information online.			✓ I can evaluate the consequences of unreliable content; not everything on the World Wide Web is true. ✓ I can explain why I need to think carefully about how content I post might affect others, their feelings and how it may affect how others feel about them (their reputation). ✓ I know how to be respectful to others online and describe how to recognise healthy and unhealthy online behaviours. ✓ I know how to keep my personal information private, depending on context. ✓ I can describe how some online services may seek consent to store information about me; I know how to respond appropriately and who I can ask if I am not sure. ✓ When searching on the internet for content to use, I can explain why I need to consider who owns information on websites and whether I have the right to reuse it.		
Vocabulary **Computer Science**	Sound Command	Sequence Block	Sprite Debug	Code snippet Forwards Backwards	Repeat Infinite loops Count-controlled loops	Program Decomposition Algorithm
Vocabulary **Information Technology**	Animation Stop-frame animation Frames Onion-skin	Repeat Copy Paste Alter/edit	Movement Flip-book	Text Image Templates Orientation Content copyright-free images	soundwave audio-recording record podcast audio	voice background music trim edit
Vocabulary **Digital Literacy**	hare Created Copied Reputation Digital personality	Anonymity Identity Autocomplete Belief Opinion	Fact Fake news Positive Negative	Online bullying Banter Teasing Chat Image Video	Behaviour Support Share Personal information Password Confidentiality	Digital age of consent Monitored Trusted adult Permission Owner Content