

Dothill Progression Mapping



Computing

Respect Happiness Responsibility Creativity HONESTY Enthusiasm Confidence Kindness Cooperation fairness

	Year Five	Year Six
Substantive Knowledge Computer science (Algorithms and programming, data, systems)	<ul style="list-style-type: none"> ✓ I know that programs need testing. ✓ I know what an input device is (e.g. keyboard) ✓ I know what an output device is (e.g. speakers, printers) ✓ I know that computers link together to create a network. ✓ I know what is meant by selection and conditions. 	<ul style="list-style-type: none"> ✓ I know that a variable is something that is changeable. ✓ I know what an input device is (e.g. keyboard) ✓ I know what an output device is (e.g. speakers, printers) ✓ I know that systems require input and output device. ✓ I know different variables. ✓ I know that a loop can stop when a condition is met.
Substantive Knowledge Information Technology (Digital artefact and computing contexts)	<ul style="list-style-type: none"> ✓ I know that computers can be connected together to form systems. ✓ I know the role of computer systems in our lives. ✓ I know how to use a search ✓ I know why the order of results is important, and to whom. ✓ I know that video is a media format. ✓ I know how to use a digital device to record video. ✓ I know how to store, retrieve, and export my recording to a computer. ✓ I know how to remove unwanted content and reorder clips. ✓ I know how to find copyright-free images online. 	<ul style="list-style-type: none"> ✓ I know how data is transferred across the internet. ✓ I know how sharing information online can help people to work together. ✓ I know how we communicate using technology. ✓ I know what a website is. ✓ I know that websites are written in HTML. ✓ I know some common features of a webpage. ✓ I know what is meant by copyright. ✓ I know what a navigation path is. ✓ I know what a hyperlink is.

<p>Substantive Knowledge Digital literacy</p> <p>(Mechanics, searching/ selecting information, and e-safety)</p>	<p>Computing systems and networks: Sharing information</p> <ul style="list-style-type: none"> ✓ I know that computers can be connected together to form systems. <p>Self-image and identity</p> <ul style="list-style-type: none"> ✓ I know how my identity online can be copied, modified or altered. <p>Online reputation</p> <ul style="list-style-type: none"> ✓ I know ways that information about anyone online can be used by others to make judgments about an individual and why these may be incorrect. <p>Health, well-being and lifestyle</p> <ul style="list-style-type: none"> ✓ I know that some apps and games may request or take payment for additional content (e.g. in-app purchases, lootboxes) and know the importance of seeking permission from a trusted adult before purchasing. <p>Managing online information</p> <ul style="list-style-type: none"> ✓ I know the benefits and limitations of using different types of search technologies e.g. voice-activation search engine. ✓ I know what fake news is, and how it may affect someone's emotions and behaviour. ✓ I know what is meant by a 'hoax'. I can explain why someone would need to think carefully before they share. ✓ I know what is meant by 'being sceptical', and can give examples of when/why it is important to be 'sceptical'. ✓ I know what a stereotype is. 	<p>Computing systems and networks: Communication</p> <ul style="list-style-type: none"> ✓ I know that searches online need to be refined to achieve the best results. <p>Online bullying</p> <ul style="list-style-type: none"> ✓ I know how someone would report online bullying in different contexts. <p>Online relationships</p> <ul style="list-style-type: none"> ✓ I know how sharing something online may have an impact either positively or negatively. ✓ I know how to be kind and show respect for others online including the importance of respecting boundaries, regarding what is shared about them online and how to support them if others do not. <p>Privacy and security</p> <ul style="list-style-type: none"> ✓ I know effective ways people can manage passwords (e.g. storing them securely or saving them in the browser). ✓ I know what to do if a password is shared, lost or stolen. ✓ I know simple ways to increase privacy on apps and services that provide privacy settings. ✓ I know that online services have terms and conditions that govern their use. <p>Copyright and ownership</p> <ul style="list-style-type: none"> ✓ I know what is meant by plagiarism.
<p>Disciplinary Knowledge Computer science</p> <p>(Algorithms and programming, data, systems)</p>	<ul style="list-style-type: none"> ✓ I can control the flow of the program. ✓ I can identify and modify conditions in a program. ✓ I can implement my algorithm to create the first section of my program. 	<ul style="list-style-type: none"> ✓ I know how to control a simple circuit connected to a computer. ✓ I can identify a condition and an action in my project. ✓ I can use selection (an if...then...' statement) to direct the flow of a program. ✓ I know how to test and debug my project. ✓ I can experiment with different physical inputs. ✓ I can explain that a variable has a name and a value. ✓ I know how to improve a game by using variables. ✓ I can identify ways that my game could be improved. ✓ I can use an operand (e.g. <=>) in an if, then statement.
<p>Disciplinary Knowledge Information Technology</p> <p>(Digital artefact and computing contexts)</p>	<ul style="list-style-type: none"> ✓ I can capture video using a range of filming techniques. ✓ I can create a storyboard to outline scenes in my video content. ✓ I can describe how search engines select results. ✓ I can explain how search results are ranked. 	<ul style="list-style-type: none"> ✓ I can explain the importance of internet addresses. ✓ I can evaluate different ways of working together online. ✓ I can evaluate different methods of online communication. ✓ I can analyse an existing website and consider its structure. ✓ I can consider the ownership and use of images (copyright). ✓ I can recognise the need to preview pages. ✓ I can recognise the implications of linking to content owned by other people.

<p>Disciplinary Knowledge Digital literacy</p> <p>(Mechanics, searching/ selecting information, and e-safety)</p>	<ul style="list-style-type: none"> ✓ I can describe the input, process, and output of a digital system ✓ I can recognise the role of computer systems in our lives. ✓ I know how to use a search engine and that searches are ranked. ✓ I can make responsible choices about having an online identity, depending on context. ✓ I can search for information about an individual online and summarise the information found. ✓ I know how technology can affect health and well-being both positively (e.g. mindfulness apps) and negatively. ✓ I can recognise the benefits and risks of accessing information about health and well-being online and how we should balance this with talking to trusted adults and professionals. ✓ I can evaluate digital content and can explain how to make choices about what is trustworthy e.g. differentiating between adverts and search results. ✓ I can explain key concepts including information, reviews, fact, opinion belief, validity, reliability and evidence. ✓ I can identify ways the internet can draw us to information for different agendas, e.g. website notifications, pop-ups, targeted ads. ✓ I can describe ways of identifying when online content has been commercially sponsored or boosted, (e.g. by commercial companies or by vloggers, content creators, influencers) 			<ul style="list-style-type: none"> ✓ I can choose methods of communication to suit particular purposes. ✓ I know how to capture bullying content as evidence (e.g. screengrab, URL, profile) to share with others who can help me. ✓ I can describe how things shared privately online can have unintended consequences for others. e.g. screen-grabs. ✓ I can describe how and why people should keep their software and apps up to date, e.g. auto updates. ✓ I can describe ways in which some online content targets people to gain money or information illegally; I can describe strategies to help me identify such content (e.g. scams, phishing). ✓ I can use search tools to find and access online content which can be reused by others. ✓ I know how to make references to and acknowledge sources I have used from the internet. 		
<p>Vocabulary Computer Science</p>	<p>'If...then...else' Selection Conditions Input/output device</p>	<p>Modify Control Outcome</p>	<p>Algorithm Crumble</p>	<p>Micro:bit Input/output device Condition-controlled loop</p>	<p>Infinite loop Count-controlled loop Sensor</p>	<p>Control Variable</p>
<p>Vocabulary Information Technology</p>	<p>Video Editing Retrieve Export</p>	<p>Modify Input Process Output</p>	<p>Computer system Search engine Web crawlers</p>	<p>Data Addresses Communication Collaboration</p>	<p>Data packet Networks Navigation path Hyperlink</p>	<p>Copyright Fair use Content</p>
<p>Vocabulary Digital Literacy</p>	<p>Share Created Copied Reputation Digital personality Anonymity Autocomplete</p>	<p>Belief Opinion Fact Analyse Judgement In-app purchases Sceptical</p>	<p>Pop-ups Notifications Validity Fake news Influence Manipulation Stereotype</p>	<p>Online bullying Banter Teasing Chat Image Video Behaviour Support Share Helpline services</p>	<p>Abusive users Block Personal information Password Confidentiality Digital age of consent Monitored Trusted adult Strong password Geolocation</p>	<p>Scams Phishing Illegal Permission Owner Content Referenced Acknowledgement Plagiarism</p>