



# Danegrove Primary School

## Computing Overview by Year Group



**Intent:** Computing at Danegrove School prepares all our children to develop their skills and knowledge in order for them to participate in a rapidly changing world. Computers and ipads are used for a range of purposes including, data processing, word processing, animation and film creation. Our children often use the computer to publish their stories and poems and print these for display or to share them with others. They will also become familiar with code through practical activities and use of software packages. Safe practise using technology is encouraged throughout the school through our online safety sessions.

Repeated Themes: **E-Safety, Digital Literacy, Information Technology (Creative Use), Computer Science**

Year Group	Autumn		Spring		Summer	
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<b>Topics</b>	EYFS: Technology is used in places such as homes and schools. They select and use technology for particular purposes.					
<b>EYFS</b>	<p style="text-align: center;"><b>Autumn 1</b> <b>Privacy and Security</b> <b>Purple Mash (2BeSafe: Being Safe in a Digital World / Unplugged)</b></p> <ul style="list-style-type: none"> <li>To identify some simple examples of my personal information e.g., name, address, birthday, age and location.</li> <li>To describe the people that they can trust and can share this information with and explain why they trust them.</li> </ul> <p style="text-align: center;"><b>Autumn 2</b> <b>Managing Online Information</b> <b>Purple Mash (2BeSafe: Being Safe in a Digital World / Unplugged)</b></p> <ul style="list-style-type: none"> <li>To talk about how the internet can be used to find things out and the devices that could be used.</li> <li>To give examples of how to find information (e.g., search engine, voice searching).</li> </ul> <p style="text-align: center;"><b>Autumn 2</b> <b>Programming – Early Programming skills</b></p> <ul style="list-style-type: none"> <li>To give simple directional instructions using arrows to move an object.</li> <li>To predict what might happen.</li> </ul> <p><b>(Busy Things: Mouse and Keyboard Skills and ICT Tools; or Purple Mash: General Computing Skills)</b></p>		<p style="text-align: center;"><b>Spring 1</b> <b>Self -image and identity/online relationships</b> <b>Purple Mash (2BeSafe: Being Safe in a Digital World / Unplugged)</b></p> <ul style="list-style-type: none"> <li>To recognise that both online and in real life they can say 'no'/please stop/I'll tell/I'll ask to somebody who asks me to do something that makes them feel sad, embarrassed or upset.</li> <li>To recognise some ways that the internet can be used to communicate and to give examples of how they might use technology to communicate with people they know.</li> </ul> <p style="text-align: center;"><b>Safer Internet Day</b> <b>Whole School Assembly</b></p> <p style="text-align: center;"><b>Spring 1</b> <b>Early Word-processing/Typing</b></p> <ul style="list-style-type: none"> <li>To be able to use a mouse, and/or touch screen to target and select options on screen.</li> </ul> <p><b>(Busy Things: Mouse and Keyboard Skills and ICT Tools; or Purple Mash: General Computing Skills)</b></p> <p style="text-align: center;"><b>Spring 2</b> <b>Online Bullying</b> <b>Purple Mash (2BeSafe: Being Safe in a Digital World / Unplugged)</b></p> <ul style="list-style-type: none"> <li>To describe ways that some people can be unkind online and offer an example of how this can make others feel.</li> </ul> <p style="text-align: center;"><b>Spring 2</b></p>		<p style="text-align: center;"><b>Summer 1</b> <b>Health, Wellbeing and lifestyle</b> <b>Purple Mash (2BeSafe: Being Safe in a Digital World / Unplugged)</b></p> <ul style="list-style-type: none"> <li>To identify rules that can help keep them safe and healthy in and beyond the home when using technology and to give some simple examples.</li> </ul> <p style="text-align: center;"><b>Summer 1</b> <b>Programming – A simple robot to follow simple instructions.</b></p> <ul style="list-style-type: none"> <li>To follow simple oral algorithms.</li> <li>To input a simple sequence of commands to control a Bee-Bot with little support.</li> </ul> <p style="text-align: center;"><b>(Unplugged and Bee-Bots)</b></p> <p style="text-align: center;"><b>Summer 2</b> <b>Online Reputation and Copyright and Ownership</b> <b>Purple Mash (2BeSafe: Being Safe in a Digital World / Unplugged)</b></p> <ul style="list-style-type: none"> <li>To identify ways that information can be put onto the internet.</li> <li>To know that work created by an individual belongs to them and when it is named, others will know it belongs to them.</li> </ul> <p style="text-align: center;"><b>Summer 2</b> <b>Word Processing/Photography</b></p> <ul style="list-style-type: none"> <li>To type letters with increasing confidence using a keyboard or tablet.</li> <li>To take a photo and use it in an app.</li> </ul>	

		<p><b>Programming – A simple robot to follow simple instructions.</b></p> <ul style="list-style-type: none"> <li>To follow simple oral algorithms (outdoor learning).</li> <li>To input a simple sequence of commands to control a Bee-Bot with support. <b>(Bee-Bots)</b></li> </ul>	<ul style="list-style-type: none"> <li>To dictate short, clear sentences into a digital device. <b>(iPads or Purple Mash: General Computing Skills)</b></li> </ul>
<b>Topics</b>	<b>Around the World</b>	<p><b>Sp1: : Toys</b> <b>Sp2: The Natural World</b></p>	<b>Seaside</b>
<b>Year 1</b>	<p><b>Autumn 1</b> <b>Privacy and Security</b> <b>Purple Mash (2BeSafe: Being Safe in a Digital World / Unplugged)</b></p> <ul style="list-style-type: none"> <li>To recognise more detailed examples of information that is personal e.g., home address, family names and school attended.</li> <li>To describe the people that they can trust and can share this information with and explain why they are trusted.</li> <li>To identify ways that they can put information on the internet.</li> <li>To describe the information that should not be put online without asking a trusted adult.</li> </ul> <p><b>Autumn 1</b> <b>Coding</b> <b>(Purple Mash 1.7/unplugged)</b></p> <ul style="list-style-type: none"> <li>To understand and write simple algorithms.</li> <li>To understand that algorithms can be implemented as programs on digital devices.</li> <li>To give oral Instructions to find key locations on the map of the local area/locations around the school.</li> </ul> <p><b>Autumn 2</b> <b>Managing Online Information</b> <b>Purple Mash (2BeSafe: Being Safe in a Digital World / Unplugged)</b></p> <ul style="list-style-type: none"> <li>To understand the schools acceptable use policy (AUP).</li> <li>To use the internet to find things out using simple key words in search engines (could be linked to research on a curriculum topic).</li> <li>To describe and demonstrate how to get help from a trusted adult or helpline if they found content that makes them uncomfortable, sad worried or frightened.</li> </ul>	<p><b>Spring 1</b> <b>Self -image and identity/online relationships</b> <b>Purple Mash (2BeSafe: Being Safe in a Digital World / Unplugged)</b></p> <ul style="list-style-type: none"> <li>To recognise that there may be people online who could make them feel sad, embarrassed or upset and know when and how to speak to a trusted adult.</li> <li>To use the internet with adult support to communicate with people they know. <b>(Unplugged)</b> <b>Safer Internet Day</b> <b>Whole School Assembly</b></li> </ul> <p><b>Spring 1</b> <b>Coding</b> <b>(Purple Mash 1.7)</b></p> <ul style="list-style-type: none"> <li>To understand and write simple algorithms.</li> <li>To understand that algorithms can be implemented as programs on digital devices.</li> <li>To change the directions when needed.</li> <li>To use a range of different software on the iPad to code using simple directional language. <b>(Bee-Bots, create mats, Purple Mash 1.7)</b></li> </ul> <p><b>Spring 2</b> <b>Online Bullying</b> <b>Purple Mash (2BeSafe: Being Safe in a Digital World / Unplugged)</b></p> <ul style="list-style-type: none"> <li>To explain why it is important to be considerate and kind to people online.</li> <li>To describe and give examples how to behave online in ways that do not upset others.</li> </ul> <p><b>Spring 2</b> <b>Animation</b> <b>(Purple Mash 1.6)</b></p>	<p><b>Summer 1</b> <b>Health, Wellbeing and lifestyle</b> <b>Purple Mash (2BeSafe: Being Safe in a Digital World / Unplugged)</b></p> <ul style="list-style-type: none"> <li>To explain and give examples of the rules to keep them safe when using technology both in and beyond the home.</li> </ul> <p><b>Summer 1</b> <b>Coding</b> <b>(Purple Mash 1.7)</b></p> <ul style="list-style-type: none"> <li>To create a simple sequence of instructions so that the Bee-bot can move around a topic themed picture e.g., sea-side.</li> <li>To use a sequence in the program to locate and fix errors. <b>(Bee-Bots/create mats)</b></li> </ul> <p><b>Summer 2</b> <b>Purple Mash (2BeSafe: Being Safe in a Digital World / Unplugged)</b> <b>Online Reputation and Copyright and Ownership</b></p> <ul style="list-style-type: none"> <li>To recognise that information can stay online and could be copied.</li> <li>To describe what information they should not put online without asking a trusted adult first.</li> </ul> <p><b>Summer 2</b> <b>Databases/Groups and Sorting</b> <b>(Purple Mash 1.2)</b></p> <ul style="list-style-type: none"> <li>To create a list of the flowers in and around the school.</li> <li>To use a simple branching database to sort the list flowers based on one criterion e.g., wild and common.</li> <li>To enter data into a pre-made database.</li> </ul>

	<p style="text-align: center;"><b>Autumn 2</b> <b>Pictograms</b> <b>(Purple Mash 1.3)</b></p> <ul style="list-style-type: none"> <li>To collect, organise simple data relating to the daily/weekly weather.</li> <li>To create a simple digital pictogram to map the weather patterns over the course of the week.</li> <li>To make and discuss comparisons.</li> </ul>	<ul style="list-style-type: none"> <li>To create an animation of the Natural World, e.g., dinosaurs, using their pictures, to tell a story with more than one scene.</li> <li>To add filters to enhance the animation of the character using tools e.g., paint, fill.</li> <li>To understand that the work can be saved and opened when needed.</li> <li>To create digital photos and create a simple presentation on the topic using labels to identify objects.</li> </ul>	
<b>Year 2: Topics</b>	<p style="text-align: center;"><b>Aut 1: Great fire of London</b> <b>Aut 2: Famous for more than 5 minutes</b></p>	<p style="text-align: center;"><b>Sp1: How to bring a penguin home</b> <b>Sp2: Weather</b></p>	<p style="text-align: center;"><b>Sum 1: How do our houses differ? (Africa)</b> <b>Sum 2: How do our houses differ? (Queens)</b></p>
<b>Year 2</b>	<p style="text-align: center;"><b>Autumn 1</b> <b>Privacy and Security</b> <b>Purple Mash (2BeSafe: Being Safe in a Digital World / Unplugged)</b></p> <ul style="list-style-type: none"> <li>To describe why other people's work belongs to them.</li> <li>To recognise that content on the internet may belong to other people.</li> <li>To learn to respect people privacy online.</li> <li>To explain how information put online about me can last for a long time.</li> <li>To know who to talk to if I think someone has made a mistake about putting something online.</li> <li>To understand that the information on the internet can be viewed by everyone.</li> </ul> <p style="text-align: center;"><b>Autumn 1</b> <b>Painting</b> <b>(Purple Mash 2.6)</b></p> <ul style="list-style-type: none"> <li>To use the different tools on the paint software.</li> <li>To create their own version of the painting (linked to artist or topic) using the paint tool.</li> <li>To save their work and ensure that all children have saved their work.</li> <li>To print out finished pieces and share.</li> <li>To use the paint tools to fill, edit and add text to their image.</li> </ul> <p style="text-align: center;"><b>Autumn 2</b> <b>Managing Online Information</b> <b>Purple Mash (2BeSafe: Being Safe in a Digital World / Unplugged)</b></p>	<p style="text-align: center;"><b>Spring 1</b> <b>Self-image and identity/online relationships</b> <b>Purple Mash (2BeSafe: Being Safe in a Digital World / Unplugged)</b></p> <ul style="list-style-type: none"> <li>To explain how other people's identity online can be different to their identity in real life.</li> <li>To describe ways in which people might make themselves look different online.</li> <li>To give examples of issues online that might make them feel sad, worried, uncomfortable or frightened and give examples of how they might get help.</li> <li>To use the internet to communicate with people they don't know well (e.g. email a pen pal in another school/ country).</li> </ul> <p style="text-align: center;"><b>Safer Internet Day</b> <b>Whole School Assembly</b></p> <p style="text-align: center;"><b>Spring 1</b> <b>Presenting ideas/ Effective Searching</b> <b>(Purple Mash 2.5 / 2.8)</b></p> <ul style="list-style-type: none"> <li>To create a poster on a hero or heroine using an appropriate search engine to obtain information.</li> <li>Save and insert/copy and paste an image into Microsoft word.</li> <li>To use text to add facts about their significant person or linked to current topic.</li> <li>To use login details to access their profile.</li> <li>To navigate the app using the tools.</li> <li>To open, save and retrieve work.</li> <li>To develop key board skills, including editing text.</li> </ul>	<p style="text-align: center;"><b>Summer 1</b> <b>Health, Wellbeing and lifestyle</b> <b>Purple Mash (2BeSafe: Being Safe in a Digital World / Unplugged)</b></p> <ul style="list-style-type: none"> <li>To explain simple guidance for using technology in different environments and settings.</li> <li>To say how those rules/guides can help them.</li> </ul> <p style="text-align: center;"><b>Summer 1</b> <b>Databases/Questioning</b> <b>(Purple Mash 2.4)</b></p> <ul style="list-style-type: none"> <li>To create a list of the flowers and plants in and around the school.</li> <li>To sort the data into alphabetical and numerical order.</li> <li>To use a simple branching database to sort the list based on different criteria e.g., wild and common, evergreen, deciduous.</li> <li>To answer questions e.g., yes/no and more or less.</li> </ul> <p style="text-align: center;"><b>Summer 2</b> <b>Online Reputation and Copyright and Ownership</b> <b>Purple Mash (2BeSafe: Being Safe in a Digital World / Unplugged)</b></p> <ul style="list-style-type: none"> <li>To describe why other people's work belongs to them.</li> <li>To recognise that content on the internet may belong to other people.</li> </ul> <p style="text-align: center;"><b>Summer 2</b> <b>Spreadsheets</b> <b>(Purple Mash 2.3)</b></p>

	<ul style="list-style-type: none"> <li>To understand the schools acceptable use policy (AUP)</li> <li>To use keywords in search engines.</li> <li>To demonstrate how to navigate a simple webpage to get to information I need (e.g. home, forward, back buttons; links, tabs and sections).</li> <li>To explain what voice activated searching is and how it might be used (e.g., Alexa, Google Now, Siri).</li> <li>To explain the difference between things that are imaginary, 'made up' or 'make believe' and things that are 'true' or 'real'.</li> <li>To explain why some information they find online may not be true</li> <li>To understand that not to click on adverts that may appear.</li> </ul> <p style="text-align: center;"><b>Autumn 2</b> <b>Coding</b> <b>(Purple Mash 2.1)</b></p> <ul style="list-style-type: none"> <li>To create a sequence of instructions so that the sprite can move around the template of choice using simple blocks.</li> <li>To use a sequence in the program to locate and fix errors.</li> </ul>	<p style="text-align: center;"><b>Spring 2</b> <b>Online Bullying</b> <b>Purple Mash (2BeSafe: Being Safe in a Digital World / Unplugged)</b></p> <ul style="list-style-type: none"> <li>To give examples of bullying behaviour and how it could look online.</li> <li>To understand how bullying can make someone feel.</li> <li>To talk about how someone can/would get help about being bullied online or offline.</li> <li>To treat other online with respect.</li> </ul> <p style="text-align: center;"><b>Spring 2</b> <b>Coding</b></p> <ul style="list-style-type: none"> <li>To use a series of instructions, on the programmable probots (cars) to move the cars around the scenarios on the computers.</li> <li>To upload the data from the probots to the probotix software.</li> </ul> <p style="text-align: center;"><b>(Probotix 2)</b></p>	<ul style="list-style-type: none"> <li>To understand what a spreadsheet is used for.</li> <li>To understand what a spreadsheet looks like.</li> <li>To be able to navigate around a spreadsheet and enter data and images.</li> <li>To learn new vocabulary related to spreadsheets.</li> </ul>
<b>Year 3: Topics</b>	<b>Autumn: Stoneage to the Iron Age</b>	<b>Spring 1: Deserts</b> <b>Spring 2: Ancient Egypt</b>	<b>Summer 1: Ancient Egypt</b> <b>Summer 2: Rivers</b>
<b>Year 3</b>	<p style="text-align: center;"><b>Autumn 1</b> <b>Privacy and Security</b> <b>Purple Mash (2BeSafe: Being Safe in a Digital World / Unplugged)</b></p> <ul style="list-style-type: none"> <li>To give reasons why they should only share information with people they choose to and can trust.</li> <li>To explain that if they are not sure or feel pressured, they should ask a trusted adult.</li> <li>To understand and can give reasons why passwords are important.</li> <li>To describe simple strategies for creating and keeping passwords private.</li> <li>To describe how connected devices can collect and share information with others.</li> </ul> <p style="text-align: center;"><b>Autumn 1</b> <b>Touch Typing</b></p>	<p style="text-align: center;"><b>Spring 1</b> <b>Self-image and identity/online relationships</b> <b>Purple Mash (2BeSafe: Being Safe in a Digital World / Unplugged)</b></p> <ul style="list-style-type: none"> <li>To explain what is meant by the term 'identity'.</li> <li>To explain how they can represent themselves in different ways online.</li> <li>To explain ways in which and why they might change their identity depending on what they are doing online (e.g., gaming; using an avatar; social media).</li> <li>To describe ways people who have similar likes and interests can get together online.</li> <li>To give examples of technology-specific forms of communication (e.g. emoji, acronyms, text speak).</li> <li>To explain some risks of communicating online with others they don't know well.</li> </ul>	<p style="text-align: center;"><b>Summer 1</b> <b>Health, Wellbeing and lifestyle</b> <b>Purple Mash (2BeSafe: Being Safe in a Digital World / Unplugged)</b></p> <ul style="list-style-type: none"> <li>To explain why spending too much time using technology can sometimes have a negative impact on them.</li> <li>To give some examples of activities where it is easy to spend a lot of time engaged (e.g. games, films, videos).</li> <li>To know that some video games are not appropriate for their age.</li> </ul> <p style="text-align: center;"><b>Summer 1</b> <b>Research project on the Egyptians</b></p> <ul style="list-style-type: none"> <li>To create an eBook with text, images and sound.</li> </ul>

**(Purple Mash 3.4)**

- To further develop familiarity with the keyboard.
  - To establish correct typing posture and technique.
- To build confidence and accuracy in touch typing.

**Autumn 2**

**Managing Online Information**

**Purple Mash (2BeSafe: Being Safe in a Digital World / Unplugged)**

- To understand the schools acceptable use policy (AUP).
- To use key phrases in search engines.
- To explain what autocomplete is and how to choose the best suggestion.
- To explain how the internet can be used to sell and buy things.
- To explain the difference between a 'belief', an 'opinion' and a 'fact'.
- To search using child appropriate search engines.

**Autumn 2**

**Microsoft Office**

**(Purple Mash 3.9)**

- To explore the basics of Office.
- To develop confidence with power-point, document creation, saving, editing, and retrieving.
- To add a voice over for the power-point presentations.
- To create a presentation linked to their topic.

**(National Centre for Computing Education/ Microsoft)**

- To explain how theirs and other people's feelings can be hurt by what is said or written online.
- To explain why they should be careful who they trust online and what information they can trust them with.
- To explain why they can take back their trust in someone or something if they feel nervous, uncomfortable or worried.
- To explain what it means to 'know someone' online and why this might be different from knowing someone in real life.
- To explain what is meant by 'trusting someone online' and to explain why this is different from 'liking someone online'.

**Safer Internet Day  
Whole School Assembly**

**Spring 1**

**Coding: Sequencing sounds**

**(Purple Mash 3.1)**

- To create a game where they will create their background.
- To be able to understand that more than one program can happen at once and debug and correct any errors / make improvements.
- To be able to evaluate and assess their work and that of their peers.

**(National Centre for Computing Education – using Scratch;  
Purple Mash – 2Code)**

**Spring 2**

**Online Bullying**

**(Purple Mash (2BeSafe: Being Safe in a Digital World / Unplugged)**

- To explain what bullying is and can describe how people may bully others.
- To describe rules about how to behave online and how they can follow them.
- To describe how to respond to online bullying via different platforms.

**Spring 2**

**Simulations**

**(Purple Mash 3.7 using 2simulate)**

- To create a simulation.

- To design and make a front cover and create content for the e-Book.
- To include a table and a graph to show important feature.

**(Book Creator, Adobe Spark Page)**

**Summer 2**

**Online Reputation and Copyright and Ownership**

**Purple Mash (2BeSafe: Being Safe in a Digital World / Unplugged)**

- To recognise they need to be careful before they share anything about themselves or others online.
- To recognise who they should ask if they are not sure if they should put something online.
- To recognise that some work online belongs to others.

**Summer 2**

**Coding: Events and actions in programmes**

**(Purple Mash 3.1)**

- To create a game where they will create their background.
- To be able to understand that more than one program can happen at once and debug and correct any errors / make improvements.
- To be able to evaluate and assess their work and that of their peers.
- To extend the instruction set to include a wider range of commands.

**(National Centre for Computing Education – using Scratch;  
Purple Mash – 2Code)**

		<ul style="list-style-type: none"> <li>To improve stop motion animation clips with techniques like onion skinning.</li> <li>To use simulation tools in presenting software to create simple animations.</li> </ul> <p>(National Centre for Computing Education, Stop Motion, Purple Mash: 2Simulate)</p>	
<b>Year 4: Topics</b>	<b>Passport through Europe</b>	<b>Ancient Greece/Romans</b>	<b>Extreme Earth</b>
<b>Year 4</b>	<p><b>Autumn 1</b> <b>Privacy and Security</b> (Purple Mash (2BeSafe: Being Safe in a Digital World / Unplugged))</p> <ul style="list-style-type: none"> <li>To explain what a strong password is.</li> <li>To describe strategies for keeping personal information private, depending on context.</li> <li>To explain that others online can pretend to be them or other people, including their friends.</li> <li>To suggest reasons why they might do this.</li> <li>To can explain how internet use can be monitored.</li> </ul> <p><b>Autumn 1</b> <b>Coding</b> (Purple Mash 4.1)</p> <ul style="list-style-type: none"> <li>To create a background and sprites using the paint tool.</li> <li>To create an animation using more than one sprite.</li> <li>To write a program using different conditions to move a sprite e.g., using if block to perform a specified action.</li> </ul> <p>(Scratch, J2Code, Code4Life)</p> <p><b>Autumn 2</b> <b>Managing Online Information</b> (Purple Mash (2BeSafe: Being Safe in a Digital World / Unplugged))</p> <ul style="list-style-type: none"> <li>To understand the schools acceptable use policy (AUP).</li> <li>To analyse information and differentiate between ‘opinions’, ‘beliefs’ and ‘facts’.</li> <li>To understand what criteria have to be met before something is a ‘fact’.</li> </ul>	<p><b>Spring 1</b> <b>Self -image and identity/online relationships</b> (Purple Mash (2BeSafe: Being Safe in a Digital World / Unplugged))</p> <ul style="list-style-type: none"> <li>To describe strategies for safe and fun experiences in a range of online social environments.</li> <li>To give examples of how to be respectful to others online.</li> <li>To explain how their online identity can be different to the identity they present in ‘real life’.</li> <li>To describe the right decisions about how they interact with others and how others perceive them.</li> <li>To understand information, put online stays online digital footprint).</li> </ul> <p><b>Safer Internet Day</b> <b>Whole School Assembly</b></p> <p><b>Spring 1</b> <b>Hardware</b> (Purple Mash 4.8/unplugged)</p> <ul style="list-style-type: none"> <li>Name the different parts of a desktop computer.</li> <li>Know what the functions of the different parts of a computer are.</li> <li>Create a leaflet to show the function of computer parts using Microsoft publisher.</li> </ul> <p><b>Spring 1 and 2</b> <b>Effective searching (Purple Mash 4.7)</b> <b>Presenting (with Microsoft PowerPoint or Google Slides)</b></p> <ul style="list-style-type: none"> <li>To create a poster (linked to Romans or Greeks) using a range of different tools available e.g., insert and edit picture and edit, edit text, insert and edit table, insert text box.</li> </ul>	<p><b>Summer 1</b> <b>Health, Wellbeing and lifestyle</b> (Purple Mash (2BeSafe: Being Safe in a Digital World / Unplugged))</p> <ul style="list-style-type: none"> <li>To explain how using technology can distract them from other things that they might do or should be doing.</li> <li>To identify times or situations when they might need to limit the amount of time they use technology.</li> <li>To suggest strategies to help them limit this time.</li> <li>To know that video games have a rating and understand why.</li> </ul> <p><b>Summer 1</b> <b>Film Making/Animation</b> (Purple Mash 4.6)</p> <ul style="list-style-type: none"> <li>Create a documentary/animation linked to extreme earth.</li> </ul> <p><b>Summer 2</b> <b>Online Reputation and Copyright and Ownership</b> (Purple Mash (2BeSafe: Being Safe in a Digital World / Unplugged))</p> <ul style="list-style-type: none"> <li>To describe how others can find out information about them by looking online.</li> <li>To explain ways that some of the information about them online could have been created, copied or shared by others.</li> <li>To know what copyright means.</li> </ul> <p><b>Summer 2</b> <b>Databases and Spreadsheets</b></p> <ul style="list-style-type: none"> <li>To analyse data using a spreadsheet of different measurements e.g., from earthquakes from around the world.</li> </ul>

	<ul style="list-style-type: none"> <li>● To describe how to search for information within a wide group of technologies (e.g. social media, image sites, video sites).</li> <li>● To describe some of the methods used to encourage people to buy things online (e.g. advertising offers; in-app purchases, pop-ups) and can recognise some of these when they appear online.</li> <li>● To explain that some people they ‘meet online’ (e.g. through social media) may be computer programmes pretending to be real people.</li> <li>● To explain why lots of people sharing the same opinions or beliefs online does not make those opinions or beliefs true.</li> <li>● To use appropriate search engines to find information and answer questions.</li> </ul> <p style="text-align: center;"><b>(Interland)</b></p> <p style="text-align: center;"><b>Autumn 2</b> <b>Coding</b> <b>(Purple Mask 4.1)</b></p> <ul style="list-style-type: none"> <li>● To create a background, sprites and props using the paint tool.</li> <li>● To programme it and add sound.</li> <li>● To create an animation using more than one sprite.</li> <li>● To write a program using different conditions and negative numbers to move a sprite e.g., using if block to perform a specified action.</li> </ul>	<ul style="list-style-type: none"> <li>● To locate information and search effectively using safe search engines.</li> <li>● To store digitally (pupil drive or google classroom) and to retrieve from stored location and recommence work seamlessly.</li> </ul> <p style="text-align: center;"><b>(Microsoft PowerPoint or Google slides)</b></p> <p style="text-align: center;"><b>Spring 2</b> <b>Online Bullying</b> <b>(Purple Mash (2BeSafe: Being Safe in a Digital World / Unplugged))</b></p> <ul style="list-style-type: none"> <li>● To identify some online technologies where bullying might take place.</li> <li>● To describe ways people can be bullied through a range of media (e.g. image, video, text, chat).</li> <li>● To explain why they need to think carefully about how content they post might affect others, their feelings and how it may affect how others feel about them (their reputation).</li> <li>● To know that images of friends cannot be uploaded without permission.</li> </ul> <p style="text-align: center;"><b>Spring 2</b> <b>Coding</b></p> <ul style="list-style-type: none"> <li>● To use programming software to design an obstacle course for a Roman gladiator character.</li> <li>● To test and debug as they go ensuring it works smoothly.</li> <li>● To create a background, sprites and props using the paint tool.</li> <li>● To create an animation using more than one sprite.</li> <li>● To write a program using different conditions to move a sprite e.g., using if block to perform a specified action.</li> </ul> <p style="text-align: center;"><b>(Scratch, Raspberry Pi, National Centre for Computing Education using Scratch)</b></p>	<ul style="list-style-type: none"> <li>● To present and sort data using a range of graphs.</li> <li>● Interpret the data presented and identify trends.</li> </ul> <p style="text-align: center;"><b>(Microsoft Excel)</b></p>
<p><b>YEAR 5</b> <b>Topics</b></p>	<p style="text-align: center;"><b>Anglo-Saxons and The Vikings</b></p>	<p style="text-align: center;"><b>Space and Rainforests</b></p>	<p style="text-align: center;"><b>The Mayans</b></p>

## Year 5

### Autumn 1

#### Privacy and Security

(Purple Mash (2BeSafe: Being Safe in a Digital World / Unplugged))

- To create and use strong and secure passwords.
- To explain how many free apps or services may read and share their private information (e.g., friends, contacts, likes, images, videos, voice, messages, location) with others.
- To explain how and why some apps may request or take payment for additional content (e.g. in-app purchases) and explain why they should seek permission from a trusted adult before purchasing.

### Autumn 1 and 2

#### Coding

(Purple Mash 5.1)

- To create programs using hour of code or scratch by decomposing them into smaller parts.
- To use selection in programs and conditions in repetition (Inc. forever) and selection (if then...else) commands.
- To predict an outcome evaluate my work and identify errors.

### Autumn 2

#### Managing Online Information

(Purple Mash (2BeSafe: Being Safe in a Digital World / Unplugged))

To understand the schools acceptable use policy (AUP).

- To use different search technologies including the school network.
- To be carry out key searches using key words and evaluate results.
- To evaluate digital content and can explain how to make choices from search results.
- To explain key concepts including: data, information, fact, opinion belief, true, false, valid, reliable and evidence.
- To understand the difference between online mis-information (inaccurate information distributed by accident) and dis-information (inaccurate information deliberately distributed and intended to mislead).
- To explain what is meant by 'being sceptical'.

### Spring 1

Self-image and identity/online relationships  
(Purple Mash (2BeSafe: Being Safe in a Digital World / Unplugged))

- To explain that there are some people they would like to communicate with online who may want to do them or their friends harm.
- To recognise that this is not their fault.
- To make positive contributions and be part of online communities.
- To describe some of the communities in which they are involved and describe how they collaborate with others positively.
- To explain how identity online can be copied, modified or altered.
- To demonstrate responsible choices about their online identity.

Safer Internet Day  
Whole School Assembly

### Spring 1

#### Microsoft Office

(Purple Mash 5.8)

- To explore Microsoft Office.
- To use an appropriate search engine effectively using key words to narrow search.
- To develop confidence with PowerPoint, document creation, saving/ editing/ retrieving.
- To include hyperlinks and images.
- To create a PowerPoint presentation on a planet of their choice.

(Microsoft)

### Spring 2

#### Online Bullying

(Purple Mash (2BeSafe: Being Safe in a Digital World / Unplugged))

- To recognise when someone is upset, hurt or angry online.
- To describe how to get help for someone that is being bullied online and assess when they themselves need to do or say something or tell someone.
- To explain how to block abusive users.

### Summer 1

#### Health, Wellbeing and lifestyle

(Purple Mash (2BeSafe: Being Safe in a Digital World / Unplugged))

To describe ways technology can affect healthy sleep and can describe some of the issues.

- To describe some strategies, tips or advice to promote healthy sleep with regards to technology.

### Summer 1

#### Film Making/creating media

- To create an advert using multi-media.
- To include voice overs and popular music.
- To edit a picture to remove items, add backgrounds using relevant software e.g., Photoshop.
- To use a 3D drawing app to create a realistic representation of real objects. (purple Mash 5.6)
- To use cutaway and split screen tools in iMovie.
- To improve green screen clips (if relevant) using crop and resize and explore more creative ways to use the tool – e.g., wearing green clothes and the masking tool.

(National Centre for Computing Education, Raspberry Pi)

### Summer 2

#### Online Reputation and Copyright and Ownership

(Purple Mash (2BeSafe: Being Safe in a Digital World / Unplugged))

- To search for information about an individual online and create a summary report of the information they find.
- To describe ways that information about people online can be used by others to make judgments about an individual.
- To define the term copyright and learn about its effects such as viruses and copyright laws.
- To know that hyperlinks are not copyright.

### Summer 2

#### Spreadsheets and Databases

(Purple mash 5.3 and 5.4)

	<ul style="list-style-type: none"> <li>To give examples of when and why it is important to be 'sceptical'.</li> <li>To explain what is meant by a 'hoax'.</li> <li>To explain why I need to think carefully before they forward anything online.</li> <li>To explain why some information they find online may not be honest, accurate or legal.</li> <li>To explain why information that is on a large number of sites may still be inaccurate or untrue.</li> <li>To assess how this might happen (e.g. the sharing of misinformation either by accident or on purpose).</li> </ul>	<ul style="list-style-type: none"> <li>To explain how they would report online bullying on the apps and platforms that they use and the importance of saving evidence.</li> <li>To describe the helpline services who can support them and what they would say and do if they needed their help (e.g. ChildLine).</li> <li>To understand the consequences of online bullying.</li> </ul> <p style="text-align: center;"><b>Spring 2</b> <b>Coding</b> <b>Coding- Game design</b> <b>(Purple mash 5.5)</b></p> <ul style="list-style-type: none"> <li>To build 3D worlds e.g., space/multi-level design and programme characters to move. They will create a world, add characters and build paths.</li> <li>To use combinations of inputs and outputs.</li> <li>To predict the effects of changing variables.</li> <li>Evaluate a partner's game.</li> <li>To create a game using an appropriate software.</li> <li>To use selection in programs and conditions in repetition (inc forever) and selection (if then...else) commands.</li> <li>To use more complex variables including random variables and a combination of inputs.</li> <li>To predict an outcome, evaluate my work and identify errors.</li> </ul> <p><b>(Kodu, Purple Mash, National Centre for Computing)</b></p>	<ul style="list-style-type: none"> <li>Use excel spreadsheets to input and evaluate variables linked to fair trade chocolate.</li> <li>To be using filter and sort functions, formulae, graphing and presenting data.</li> <li>To copy formulae to create tables of results.</li> <li>Present data well, labelling the axes and title e.g., bar charts and pie charts.</li> </ul> <p style="text-align: center;"><b>(Excel, 2calculate)</b></p>
<b>Year 6: Topics</b>	<b>Kingdom of Benin/Slavery</b>	<b>Docklands</b>	<b>WW2</b>
<b>Year 6</b>	<p style="text-align: center;"><b>Autumn 1</b> <b>Privacy and Security</b> <b>(Purple Mash (2BeSafe: Being Safe in a Digital World / Unplugged))</b></p> <ul style="list-style-type: none"> <li>To use different passwords for a range of online services.</li> <li>To describe effective strategies for managing those passwords (e.g. password managers, acronyms, stories).</li> <li>To know what to do if their password is lost or stolen.</li> <li>To explain what app permissions are and can give some examples from the technology or services they use.</li> </ul>	<p style="text-align: center;"><b>Spring 1</b> <b>Self -image and identity/online relationships</b> <b>(Purple Mash (2BeSafe: Being Safe in a Digital World / Unplugged))</b></p> <ul style="list-style-type: none"> <li>To describe ways in which the media can shape ideas about gender.</li> <li>To identify messages about gender roles and make judgements based on them.</li> <li>To challenge and explain why it is important to reject inappropriate messages about gender online.</li> <li>To describe issues online that might make them or others feel sad, worried, uncomfortable or frightened.</li> </ul>	<p style="text-align: center;"><b>Summer 1</b> <b>Health, Wellbeing and lifestyle</b> <b>(Purple Mash (2BeSafe: Being Safe in a Digital World / Unplugged))</b></p> <ul style="list-style-type: none"> <li>To describe common systems that regulate age-related content (e.g. PEGI, BBFC, and parental warnings) and describe their purpose.</li> <li>To assess and action different strategies to limit the impact of technology on my health (e.g. night shift mode, regular breaks, correct posture, sleep, diet and exercise).</li> <li>To explain the importance of self-regulating their use of technology.</li> </ul>

- To describe simple ways to increase privacy on apps and services that provide privacy settings e.g., https and a padlock.
- To describe ways in which some online content targets people to gain money or information illegally.
- To describe strategies to help them identify such content (e.g. scams, phishing).

**Autumn 2**  
**Managing Online Information**  
**(Purple Mash (2BeSafe: Being Safe in a Digital World / Unplugged))**

- To understand the schools acceptable use policy (AUP).
- To use search technologies effectively and to know common website extensions.
- To explain how search engines work and how results are selected and ranked.
- To demonstrate the strategies that they would apply to be discerning in evaluating digital content (validity).
- To describe how some online information can be opinion/bias and can offer examples.
- To explain how and why some people may present 'opinions' as 'facts'.
- To define the terms 'influence', 'manipulation' and 'persuasion' and explain how they might encounter these online (e.g. advertising and 'ad targeting').
- To demonstrate strategies to enable them to analyse and evaluate the validity of 'facts'
- To explain why using these strategies are important.
- To identify, flag and report inappropriate content.

**Autumn 1 and 2**  
**Coding**  
**(National Centre for Computing Education using Scratch/Purple Mash 6.1 using 2code)**

- To write precise algorithms including repetition and selection and decompose code for effective debugging.
- To include multiple procedures and variables in their variables.

- To know and can give examples of how they might get help, both on and offline.
- To explain why they should keep asking until they get the help I need.
- To show an understanding of their responsibilities for the well-being of others in their online social group.
- To explain how impulsive and rash communications online may cause problems (e.g. flaming, content produced in live streaming).
- To demonstrate how they would support others (including those who are having difficulties) online.
- To demonstrate ways of reporting problems online for both themselves and their friends.

**Safer Internet Day**  
**Whole School Assembly**

**Spring 1**  
**Networks**  
**(Purple Mash 6.6)**

- To explore how networks work, understand computer networks including the internet, learn how they provide multiple services, such as the World Wide Web and explore the opportunities they offer for communication and collaboration.
- To create a blog where they can add images, sounds, videos and personalise it for themselves. They will use it to keep a record of what they are doing in the classroom, or to share (via cloud or network) their thoughts and opinions with school community.

**Spring 2**  
**Online Bullying**  
**(Purple Mash (2BeSafe: Being Safe in a Digital World / Unplugged))**

- To describe how to capture bullying content as evidence (e.g., screen-grab, URL, profile) to share with others who can help them.
- To identify a range of ways to report concerns both in school and at home about online bullying.
- To understand the term 'grooming' how this takes place online.

- To demonstrate the strategies to use to do this (e.g. monitoring my time online, avoiding accidents).

**Summer 1**  
**Creating Spreadsheets/Databases**  
**(Purple Mash 6.3)**

- Use excel spreadsheets to input, and evaluate variables.
- To be using filter and sort functions, formulae, graphing and presenting data.
- To copy formulae to create tables of results.
- To use auto filter to retrieve the information and create graphs such as bar charts, pie charts and scatter graphs.
- Present data well, labelling the axes and title.
- To choose the appropriate form of graph to represent the information searched from the database.

**(Suggested Software: Excel or other relevant software)**

**Summer 2**  
**Online Reputation and Copyright and Ownership**  
**(Purple Mash (2BeSafe: Being Safe in a Digital World / Unplugged))**

- To explain how they are developing an online reputation which will allow other people to form an opinion of them.
- To describe some simple ways that help build a positive online reputation.
- To know how to select copyright free images and sounds.

**Summer 2**  
**Film Making**

- To produce a short documentary (e.g., of London, of a specific time, during the last 50 years).
- To create videos using a range of media - green screen, animations, film and image.
- To use the green screen masking tool with more than one character. To add animated subtitles to their film to further enhance their creation.

**(National Centre for Computing Education, Raspberry Pi)**

	<ul style="list-style-type: none"> <li>To predict and evaluate the effects of changing variables.</li> </ul> <p><b>(National Centre for Computing Education, Scratch, Purple Mash 2code, Raspberry Pi)</b></p>	<ul style="list-style-type: none"> <li>To know a variety of solutions for dealing with cyber bullying.</li> <li>To understand the impact of sending inappropriate content online including other people's images without permission.</li> </ul> <p style="text-align: center;"><b>Spring 2</b> <b>E-Book</b></p> <ul style="list-style-type: none"> <li>To use book creator to create an e-book to share with a younger audience.</li> <li>To include, edit and adapt photos/digital drawings, insert sound, hyperlinks, videos (where needed).</li> <li>To use a 3D drawing app to include realistic objects.</li> <li>To consider the presentation of the text.</li> <li>To develop higher level text editing skills.</li> </ul> <p><b>(National Centre for Computing Education, E-book creator)</b></p>	
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Suggested E-Safety resources – Bandrunner, Thinkuknow, Interland, BBC own it, CEOP, Common Sense Media, LGFL, Purple Mash Be safe in a Digital World

Suggested Animation resources: Stop Motion, I can Animate, Puppet Pals, Stop, Frame animator through LGFL, Purple Mash 2Animate

Suggested E-Book resources - To Create a Story (on PC), e-book creator, ibooks. Purple Mash

Suggested coding software – Scratch, Hour of Code, Code for Life, Kodu, Python, Lightbot, J2Code, Espresso, Busythings, Probotix, logo, Purple Mash 2Code

Suggested paint tools – J2code, Purple Mash 2Paint

Useful sites: National Centre for Computing/ Raspberry Pi