

Year 1 Computing Yearly Overview

Autumn/Spring/Summer

E-Safety

- Begin to understand what personal information is and who you can share it with
- Keep passwords private
- Begin to recognise who can see information stored in different places
- Recognise the difference between real and imaginary online experiences
- Know that not everyone is what they say they are online
- Make sure an adult knows what they are doing online
- Know what to do and who to tell when they see something unexpected or worrying online
- Recognise the internet is an exciting place to be but understand the need for a balance in how they spend their time
- Begin to recognise different ways to communicate online and understand the importance of always being kind and polite
- Understand that an adult needs to know when you are communicating with others online
- Understand there are a variety of sources of information and begin to understand the differences
- Recognise different types of content on websites (e.g. adverts, links)
- Know that something's may not be true or safe online
- Recognise age-appropriate websites, apps and games
- Know that sometimes pictures and words on the Internet cannot be copied because they belong to someone else

Key: Barefoot Activities

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<ul style="list-style-type: none"> • Consolidate mouse skills • Practise logging in using the class log in and password • Practice keyboard skills • Learn to login on PurpleMash and how 	<ul style="list-style-type: none"> • Continue to work on the mouse and keyboard skills • Switching a computer on/off, • Logging on/off, • Saving work, • Printing, • Copy and pasting 	<p>Programming</p> <ul style="list-style-type: none"> • Give instructions to my friend and follow their instructions <p><u>Head, Shoulders, Knees And Toes Algorithms (Send)</u></p> <ul style="list-style-type: none"> • Describe what 	<p>Programming</p> <ul style="list-style-type: none"> • Recap to check their understanding • Begin to use software to create movement and patterns on a screen 	<p>Technology in our lives</p> <ul style="list-style-type: none"> • Recognise ways that technology is used in my home and community. • Begin to identify some of the benefits of using technology. • Recognise ways that technology is used in my home and community. 	<p>Multimedia</p> <ul style="list-style-type: none"> • Be creative with different technology tools. • Save information in a special place and retrieve it again. • Use technology to create and present my ideas.

<p>to navigate the website</p>	<p>images/saving images. Resizing images.</p>	<p>happens when I press buttons on a robot</p> <ol style="list-style-type: none"> 1) Bee-Bots Tinkering Activity 2) Bee-Bots Basics Activity <ul style="list-style-type: none"> • Describe what actions I need to do to make something happen and Begin to predict what will happen for a short sequence of instructions Decomposition Unplugged Activity • Begin to use software/apps to create movement and patterns on a screen, use the word debug when I correct mistakes when I program. Scratch Tinkering Activity 	<p>Scratchjr Knock-Knock Joke Activity</p> <ul style="list-style-type: none"> • Use the word debug when I correct mistakes when I program 	<ul style="list-style-type: none"> • Recognise the ways we use technology in our classroom. • Use links to websites to find information. • Begin to identify some of the benefits of using technology. 	
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Year 2 Computing Yearly Overview

Autumn/Spring/Summer

E-Safety

- Begin to understand what personal information is and who you can share it with
- Keep passwords private
- Begin to recognise who can see information stored in different places
- Recognise the difference between real and imaginary online experiences
- Know that not everyone is what they say they are online
- Make sure an adult knows what they are doing online
- Know what to do and who to tell when they see something unexpected or worrying online
- Recognise the internet is an exciting place to be but understand the need for a balance in how they spend their time
- Begin to recognise different ways to communicate online and understand the importance of always being kind and polite
- Understand that an adult needs to know when you are communicating with others online
- Understand there are a variety of sources of information and begin to understand the differences
- Recognise different types of content on websites (e.g. adverts, links)
- Know that something's may not be true or safe online
- Recognise age-appropriate websites, apps and games
- Know that sometimes pictures and words on the Internet cannot be copied because they belong to someone else

Key: Barefoot Activities

<u>Autumn 1</u>	<u>Autumn 2</u>	<u>Spring 1</u>	<u>Spring 2</u>	<u>Summer 1</u>	<u>Summer 2</u>
<ul style="list-style-type: none"> • Using technology and the Internet • Understand what is a computer? • Use PowerPoint to create fact-files (this can be linked with the 	<ul style="list-style-type: none"> • Researching for information independently, • Creating documents using the Internet and publishing software (Word, Publisher, 	<p>Multimedia</p> <ul style="list-style-type: none"> • Use technology to present my ideas in different ways • Use the keyboard on my device to add / delete and space text for others to read • Save and open files on the device I use • Use variety of software such as good maps to find and locate different 		<p>Programming</p> <ul style="list-style-type: none"> • Bee bots - writing algorithms on flashcards then programming the beebots. Debug (fix) algorithms where necessary to achieve desired goal. • Give instructions to my friend and follow their instructions. <p><u>Crazy Character Algorithms</u></p>	

topic)	PowerPoint). <ul style="list-style-type: none">• Formatting the document appropriately to present information.• Use technology to organise and present my ideas in different ways• Save and open files on the device I use	locations	<ul style="list-style-type: none">• Tell you the order I need to do things to make something happen and talk about this as an algorithm.• Program a robot to do a particular task.• Watch a program execute and spot where it goes wrong so that I can debug it.• Tell you the order I need to do things to make something happen and talk about this as an algorithm.• Look at my friend's program and tell you what will happen. <p>Pizza Pickle Scratch Debugging</p>
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Year 3 Computing Yearly Overview

Autumn/Spring/Summer

E-Safety

- Keep personal information and passwords private
- Choose a secure password and screen name
- Make sure an adult knows what I am doing online and know how to report concerns
- Recognise excessive use of technology devices
- Begin to consider the need to protect devices from viruses
- Understand that any personal information shared online can be seen and used by others
- Know to use online tools to collaborate and communicate with others and know the importance of doing this responsibly
- Recognise the effect their writing or images might have on others
- Recognise that information on websites may not be accurate or reliable and may be used for manipulation, persuasion or promote bias
- Recognise the responsibility for making sure information shared online is reliable
- Recognise that websites can use different methods to advertise products
- Recognise age appropriate websites, apps and games
- Understand the need to identify whether material can be shared before using it in work
- Ask permission to use content created by others

Key: Barefoot Activities

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<ul style="list-style-type: none"> • Put programming commands into a sequence to achieve a specific outcome and Detect a problem in an algorithm which could result in unsuccessful programming 2d Shape Drawing Debugging • Plan and sequence instructions on a robot to make it achieve a specific outcome Bee-Bot Route Decomposition Activity (Send) • Keep testing my program and can recognise when I need to debug it 		<ul style="list-style-type: none"> • Topic Related (Poems and Vikings) • Create different effects with different technology tools • Combine a mixture of text, graphics and sound to share my ideas and learning. • Evaluate my work and improve its effectiveness • Collect data to answer a question • Talk about the different ways 		<p>Lets Create</p> <ul style="list-style-type: none"> • Using a variety of programs to create different patterns <u>(Link this to your Art Topic)</u> <u>2Simple/J2E logo</u> 	<ul style="list-style-type: none"> • Use search tools to find and use an appropriate website • Save and retrieve work on the Internet, the school network, or my own device. • Talk about the parts of a computer. • Describe the World

<ul style="list-style-type: none">• Describe the algorithm I will need for a simple task• Break an open-ended problem up into smaller parts	<p>data can be organised</p> <ul style="list-style-type: none">• Use a data logger to monitor changes and talk about the information it collects		<p>Wide Web as the part of the Internet that contains websites</p> <ul style="list-style-type: none">• Use search tools to find and use an appropriate website• About whether I can use images that I find online in my own work
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Year 4 Computing Yearly Overview

Autumn/Spring/Summer

E-Safety

- Keep personal information and passwords private
- Choose a secure password and screen name
- Make sure an adult knows what I am doing online and know how to report concerns
- Begin to understand why it is important to protect devices from viruses and malware.
- Understand that any personal information shared online can be seen and used by others
- Know how to use online tools to collaborate and communicate with others and know the importance of doing this responsibly
- Recognise the effects of their writing, comments or images might have on others
- Recognise that information on websites may not be accurate or reliable and may be used for manipulation, persuasion or promote bias
- Recognise the responsibility for making sure information shared online is reliable
- Recognise that websites can use different methods to advertise products
- Recognise age appropriate websites, apps and games
- Understand the need to identify whether material can be shared before using it in work
- Ask permission to use content created by others

Key: Barefoot Activities

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<ul style="list-style-type: none"> • 1 or 2 sessions on Hour of Code (Have a look at different ways to program i.e Block base programming etc. • Use a variety of tools to create a program Scratch, J2E <p><i>Scratch Tinkering Activity (please tailor this according to your class needs)</i></p> <ul style="list-style-type: none"> • Use an efficient procedure to simplify a program • Recognise an error in a program and debug it • Know that I need to keep testing my program while I am putting it together 		<ul style="list-style-type: none"> • Organise data in different ways • Collect data and identify where it could be inaccurate. • Use a datalogger to record and share my readings with my friends • Plan, create and search a database to answer questions • (This can be linked with your Science) 		<p>The Internet History of computers</p>	<ul style="list-style-type: none"> • Use photos, video and sound to create an atmosphere when presenting to different audiences • Explore new media to extend what i can achieve • Create, modify and present documents for a specific purpose • Give constructive

<ul style="list-style-type: none">• Recognise that an algorithm will help me sequence more complex programs• Recognise that an algorithm will me to sequence more complex problems• Recognise that using algorithms will also help solve problems in other learning such as maths <p>Scratch Game based on Timetables (See AH for more information)</p>			<p>feedback to my friends to help them improve their work and consider my own work in the same way</p> <ul style="list-style-type: none">• Check who owns photos, text and clipart
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Year 5 Computing Yearly Overview

Autumn/Spring/Summer

E-Safety

- Keep personal information and passwords private and know how to choose screen names and passwords for different purposes
- Understand appropriate and inappropriate use of the Internet
- Recognise when the use of technology devices becomes obsessive and be ready to ask for help
- Recognise their own right to be protected from the inappropriate use of technology by others and be ready to say no to inappropriate requests
- Understand how to protect devices
- Recognise the responsibility to report concerns and keep themselves and others safe
- Understand that any personal information they share online can be seen by others
- Use social networking websites appropriately, keeping an adult informed of any online activity
- Make good choices when presenting themselves online
- Understand how to protect yourself from cyber bullying or causing hurt to others
- Respect the rights of other users
- Recognise that websites have an author and some people may publish content that is not accurate
- Understand reasons why people might publish content that is not reliable
- Know how to check and critically evaluate information found online
- Recognise the consequences of using unreliable information
- Know that websites can collect data and that they can use this to make money and target their advertising
- Know how to check apps, games and websites are age appropriate
- Recognise that material on the internet belongs to someone else and know what can be downloaded to use in work

Key: Barefoot Activities

<u>Autumn 1</u>	<u>Autumn 2</u>	<u>Spring 1</u>	<u>Spring 2</u>	<u>Summer 1</u>	<u>Summer 2</u>
Programming <ul style="list-style-type: none"> • Introduction to Binary codes (use Twinkl) Scratch Projects (You may use step-by-step instructions from 'Code Club' website) • Refine a procedure using repeat commands to improve a program • Use 'if' and 'then' commands to select an action 		Data Handling <ul style="list-style-type: none"> • Choose an appropriate tool to help me collect data • Talk about mistakes in data and suggest how it could be checked • Present data in an appropriate way • Select, use and combine the appropriate technology tools to 		How does the internet work? <ul style="list-style-type: none"> • Describe different parts of the Internet • Use a search engine to find appropriate information and check its reliability • Recognise and evaluate 	Multimedia <ul style="list-style-type: none"> • Use text, photo, sound and video editing tools to refine my work • Select, use and combine the appropriate

<ul style="list-style-type: none"> • Decompose a problem into smaller parts to design an algorithm for a specific outcome and use this to write a program. • Use a variable to increase programming possibilities. • Use logical reasoning to detect and debug mistakes in a program. • Change an input to a program to achieve a different output • Logical thinking, imagination and creativity to extend a program. 	<p>create effects that will have an impact on others</p> <ul style="list-style-type: none"> • Review and improve my own work and support others to improve their work 	<p>different types of information I find on the World Wide Web</p> <p>Create a booklet on PurpleMash to present information collected on what is the Internet?</p>	<p>technology tools to create effects that will have an impact on others</p> <ul style="list-style-type: none"> • Use the skills I have already developed to create content using unfamiliar technology • Evaluate my work and improve its effectiveness •
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Year 6 Computing Yearly Overview

Autumn/Spring/Summer

E-Safety

- Keep personal information and passwords private and know how to choose screen names and passwords for different purposes
- Understand appropriate and inappropriate use of the Internet
- Recognise when the use of technology devices becomes obsessive and be ready to ask for help
- Recognise their own right to be protected from the inappropriate use of technology by others and be ready to say no to inappropriate requests
- Understand how to protect devices
- Recognise the responsibility to report concerns and keep themselves and others safe
- Understand that any personal information they share online can be seen by others
- Use social networking websites appropriately, keeping an adult informed of any online activity
- Make good choices when presenting themselves online
- Understand how to protect yourself from cyber bullying or causing hurt to others
- Respect the rights of other users
- Recognise that websites have an author and some people may publish content that is not accurate
- Understand reasons why people might publish content that is not reliable
- Know to check and critically evaluate information found online
- Recognise the consequences of using unreliable information
- Know that websites can collect data and that they can use this to make money and target their advertising
- Know how to check apps, games and websites are age appropriate
- Recognise that material on the internet belongs to someone else and know what can be downloaded to use in work

<u>Autumn 1</u>	<u>Autumn 2</u>	<u>Spring 1</u>	<u>Spring 2</u>	<u>Summer 1</u>	<u>Summer 2</u>
Data Handling <ul style="list-style-type: none"> • Plan the process needed to investigate the world around me including the use of a data logging device 	Multimedia <ul style="list-style-type: none"> • Talk about audience, atmosphere and structure when planning a particular outcome. • Confidently identify 	Programming You can choose from Lego WeDo or Microbits <ul style="list-style-type: none"> • Deconstruct a problem into smaller steps and can see how these are similar to solutions I have used 		<ul style="list-style-type: none"> • Talk about the way search results are selected and ranked. • Check the reliability of a website. • Tell you the Internet services we need for 	Green screen projects Use of sonic Pi to create sounds to add in their projects.

<p><i>and an online survey to gather data.</i></p> <ul style="list-style-type: none"> • Select the most effective tool to collect data for my investigation. • Check the data I collect for accuracy and plausibility. • Interpret the data I collect. • Present the data I collect in an appropriate way. • Select the most effective tool to collect data for my investigation. • Interrogate a database and present the outcomes to an investigation. 	<p>the potential of unfamiliar technology to increase my creativity.</p> <ul style="list-style-type: none"> • Combine a range of media for a digital presentation, recognising the contribution of each to achieve a particular outcome. • Confidently identify the potential of unfamiliar technology to increase my creativity. • Be digitally discerning when evaluating the effectiveness of my own work and the work of others. 	<p>before.</p> <ul style="list-style-type: none"> • Explain and program each of the steps in my algorithm. • Design an efficient program through the use of repeat procedures. • Use different inputs to control an onscreen action and predict what will happen. • Use a variable to achieve a required output including stopping a program. • Recognise errors in a program and link errors to a problem in the algorithm on which it is based. • Use different inputs (including sensors) to control a device or onscreen action and predict what will happen. • Explain and program each of the steps in my algorithm to achieve a planned outcome. • Evaluate the effectiveness and efficiency of my algorithm while I continually test the programming of that algorithm. • Use logical reasoning to detect and correct errors in a algorithms and programs 	<p>different purposes.</p> <ul style="list-style-type: none"> • Describe how information is transported on the Internet. • <i>Discover where a website is hosted.</i> • Describe the internet services required to create, share and evaluate a game • Use search engines to include appropriate facts and make use of appropriate resources within a game • Acknowledge the sources for resources used within a game 	
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