

Welcome to the Computing Curriculum map for Year 3

Curriculum Overview

YEAR 3	Text & Multimedia	Digital Research	Data Handling	Programming & Control	Digital Media	Communication & Collaboration
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Key stage 2

Pupils should be taught to:

- design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts
- use sequence, selection, and repetition in programs; work with variables and various forms of input and output
- use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs
- understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration
- use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content
- select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information
- use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

Please see below for specific computing modules.

Year 3 Computing- Autumn 1
'Text & Multimedia'

COMPUTING ELEMENT	LEARNING OBJECTIVES/SKILLS	SOFTWARE TOOLS	CROSS-CURRICULAR LINKS/NOTES
<p><u>Multimedia & Word Processing</u> <u>National Curriculum</u></p> <ul style="list-style-type: none"> ▪ select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information 	<ul style="list-style-type: none"> • I can evaluate a range of printed and electronic texts, appropriate to task e.g newspaper, poster, webpage, Photostory, and recognise key features of layout and design. • I can select and import graphics from digital cameras, graphics packages and the Internet. • I can select suitable sounds (including recording with a microphone) and visual effects. • I can organise and present information for a specific audience. • Through peer assessment and self evaluation, I can evaluate design and make changes. • I can recognise the difference and the advantages and disadvantages between electronic media and printed media and select key features when designing publications. <p>When word processing children should:</p> <ul style="list-style-type: none"> • use font sizes and effects appropriately to fit purpose of text • recognise key features of layout and design such as text boxes, columns, borders, WordArt • develop further basic drafting and editing skills • cut, copy and paste between applications • use spell checker • delete, insert and replace text using mouse or arrow keys. • I can begin to use more than two fingers to enter text. 	<p>Multimedia Packages:</p> <p>J2e5 (accessible via my.uso.im) Ks2 'Creative Toolkit' J2e5</p> <ul style="list-style-type: none"> - Create slides and add pictures, text, WordArt, Video. <p>Word processing Packages:</p> <ul style="list-style-type: none"> - Clicker6 - Microsoft Word <p>Microsoft Photostory (as whole class)</p> <ul style="list-style-type: none"> - Combines photos into a slideshow and allows sound, voice commentary and titles to be added. <p>Touch Typing Course:</p> <ul style="list-style-type: none"> - BBC Dance Mat Typing (www.bbc.co.uk/schools/typing) - 2type. <p><u>Differentiation</u> <i>(slightly easier to manipulate)</i></p> <p>2Create A Super Story A simple story editor that allows children to add pages and draw pictures to go with their story. Simple animations can then be chosen for the pictures.</p>	<p><u>CURRICULUM LINKS</u></p> <p>ENGLISH</p> <ul style="list-style-type: none"> • Analysing different genres of writing. • Pupils could use word processing to support their writing of stories, poems and non-fiction genres such as reports, newspaper reports, diary entries and points of view.

Year 3 Computing- Autumn 2
'Digital Research'

COMPUTING ELEMENT	LEARNING OBJECTIVES/SKILLS	HARDWARE/SOFTWARE	CROSS-CURRICULAR LINKS/NOTES
<p><u>Digital Research</u> <u>National Curriculum</u></p> <ul style="list-style-type: none"> ▪ use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content • use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. 	<ul style="list-style-type: none"> • I know that ICT enables access to a wider range of information and tools to help find specific information quickly. • I know that a website has a unique address. • I can identify some features of web pages e.g. graphics, hyperlinks, text. • I can navigate a web page to locate specific information. • I can begin to understand how search engines work and know that there are different search engines; some to search within sites, and some to search the wider Internet. • I can use a range of child friendly search engines to locate different media, e.g., text, images, sounds or videos. • I can develop key questions and key words to search for specific information to answer a problem, e.g., a question such as 'Where could we go on holiday?' would become a search for 'holiday destinations'. • I understand that some information found through searching is more relevant than others • I can save and retrieve accessed information through the use of Favourites, History, and Save As. • I can the information I find purposefully to complete specific tasks e.g. copy, paste and edit relevant information (ref. Text and multimedia unit). • I can talk about and describe the process of finding specific information. 	<p>Espresso Can access information through the main menu or search feature.</p> <p>Internet Explorer/Chrome Save addresses in 'favourites' for the children to use. (Has to be done on individual computers). By the end of the unit, the children should be saving in 'favourites' themselves.</p> <p>Child-friendly Search Engines www.swiggle.org.uk www.kidrex.org www.safesearchkids.com (google-based) www.searchypants.com (Teacher can create a search list)</p> <p>my.uso.im Teacher can save links here for children to access.</p> <p>Clicker6 Text can be imported and Clicker6 will read it. Key words can be identified and a dictionary feature is available.</p> <p>Use text/images found on the internet within the programs taught last half term.</p>	<p><u>CURRICULUM LINKS</u></p> <p>ENGLISH</p> <ul style="list-style-type: none"> • Analysing different genres of writing. • Pupils could use their research to help them write reports, information leaflets. • Summarising information in their own words. <p>MATHS</p> <ul style="list-style-type: none"> • Reading and understanding data/mathematical language (where appropriate). • Identifying the number of search results. <p>HISTORY</p> <ul style="list-style-type: none"> • Collecting accurate research from different sources. <p>GEOGRAPHY</p> <ul style="list-style-type: none"> • Find and analyse different types of maps. <p>SCIENCE</p> <ul style="list-style-type: none"> • Research the properties of different materials.

Year 3 Computing- Spring 1
'Data Handling'

COMPUTING ELEMENT	LEARNING OBJECTIVES/SKILLS	HARDWARE/SOFTWARE	CROSS-CURRICULAR LINKS/NOTES
<p><u>Data Handling</u> <u>National Curriculum</u></p> <ul style="list-style-type: none"> select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information 	<p><u>Databases</u></p> <ul style="list-style-type: none"> I know that collecting and storing information in an organised way helps them find answers to questions I know that information on record cards is divided into fields and that a set of record cards is called a file I know that information can be held as numbers, choices (such as yes/no) or words. I know that information can be taken from pictures or text. I know that ICT can be used to store and sort information I can add a record to a file in a computer database I can answer simple questions by matching the contents of a single field I can answer simple questions by ordering records by a key field and then taking the top or bottom record I can use a database to produce bar charts I can use a database to sort and classify information and to present my findings 	<p>Black Cat Information Magic <i>A database creator.</i> <i>Different levels of differentiation.</i></p> <p>2investigate <i>Look at ready-made databases.</i> <i>Use this program to create the database.</i></p>	<p><u>CURRICULUM LINKS</u></p> <p>ENGLISH</p> <ul style="list-style-type: none"> Summarising information in their own words. Answering questions based on the information given. <p>MATHS</p> <ul style="list-style-type: none"> Reading and understanding data/mathematical language (where appropriate). Knowing that information can be held as numbers. Solve one-step and two-step questions. Accurately inputting data.

Year 3 Computing- Spring 2 'Programming & Control'

COMPUTING ELEMENT	LEARNING OBJECTIVES/SKILLS	HARDWARE/SOFTWARE	CROSS-CURRICULAR LINKS/NOTES
<p><u>Programming & Control National Curriculum</u></p> <ul style="list-style-type: none"> design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts use sequence, selection, and repetition in programs; work with variables and various forms of input and output use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs 	<p><u>Introduction to 'Programming & Control'</u></p> <p><u>Lesson 1</u></p> <ul style="list-style-type: none"> I know that an 'algorithm' is a specific set of instructions used to control a function. I can follow a simple algorithm. I know that algorithms have to be accurate in order to work properly. <p><u>Lesson 2</u></p> <ul style="list-style-type: none"> I can begin to understand how computers process commands. I know my actions can move an object on screen. I can change variables to accomplish specific goals. <p><u>Lesson 3-5</u></p> <ul style="list-style-type: none"> I can use sequence, selection, and repetition in programs; I can work with variables and various forms of input and output I can use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs <p><u>Throughout</u> I can use logical reasoning to explain how some simple algorithms work.</p>	<p>Teachers - You will need to spend some time learning how to manipulate the software yourself before teaching the lessons.</p> <p><u>Lesson 1</u> <i>Non-computer based.</i> <i>Experiment with giving/receiving instructions in order to successfully carry out a task.</i></p> <p><u>Lesson 2</u> Chrome</p> <ul style="list-style-type: none"> ➤ Go to my.uso.im > j2e.com ➤ J2Code - visual <p><u>Lesson 3 +</u> Chrome</p> <ul style="list-style-type: none"> ➤ Go to my.uso.im > j2e.com ➤ J2Code – visual ➤ Select Level 1 	<p><u>CURRICULUM LINKS</u></p> <p>ENGLISH</p> <ul style="list-style-type: none"> Accurately giving oral instructions, written instructions and understanding instructions. Write a recount. <p>MATHS</p> <ul style="list-style-type: none"> Knowing that information can be held as numbers. Solve one-step and two-step questions. Accurately inputting numbers. Identifying and using angles. Make the sprites move in perpendicular/parallel lines.

Year 3 Computing- Summer 1 'Digital Media'

COMPUTING ELEMENT	LEARNING OBJECTIVES/SKILLS	HARDWARE/SOFTWARE	CROSS-CURRICULAR LINKS/NOTES
<p><u>DIGITAL MEDIA</u> <u>National Curriculum</u></p> <ul style="list-style-type: none"> select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information 	<p><u>1-2 Lessons</u> Photography</p> <ul style="list-style-type: none"> I know how to take images appropriately and responsibly with consideration for other peoples' views. I can use a digital camera effectively and upload my images to a computer. I can select specific areas of a photo, and crop unwanted parts of the photo. <p><u>1 lesson</u> Images</p> <ul style="list-style-type: none"> I can acquire, retrieve and store images from scanners and the internet. I am aware of the implications of copyright. I can use ICT to source, generate and amend ideas for their work, e.g., searching the Internet for images by a specific artist. I can modify images in a paint program using various tools for a purpose. <p><u>2-3 lessons</u></p> <ul style="list-style-type: none"> I can create a sequence of images to form a short animation or slideshow. <i>(combination of photos and found images)</i> 	<p>Talk about what makes a good photo The children could bring in a photo that they/a family member have taken to talk about what makes a good photo/the types of photos you can take.</p> <p><u>Digital Cameras</u></p> <ul style="list-style-type: none"> You will need to borrow digital cameras from other classes so that the children can take their photos in small groups. <p><u>Microsoft Paint</u> Teach the children how to crop/undo/save.</p> <p><u>Child-friendly Search Engines</u> www.swiggle.org.uk www.kidrex.org www.safesearchkids.com (google-based) Google may be used but only under <u>strict adult supervision</u> and children need reminding about reliable sources of information/e-safety.</p> <p><u>Microsoft Powerpoint</u></p> <ul style="list-style-type: none"> Insert images. Re-size Add a caption 	<p><u>CURRICULUM LINKS</u></p> <p>ENGLISH</p> <ul style="list-style-type: none"> Pupils could use their photos to add to pieces of writing Eg . newspaper reports, book reviews, diary entries. <p>MATHS</p> <ul style="list-style-type: none"> Describe the position of a picture. Rotate image a given number of degrees. <p>HUMANITIES/SCIENCE</p> <p>Complete a slideshow on a particular them (relating to your topic). Include both photos the children have taken and images from the internet. Eg. plants or the tudors.</p>

Year 3 Computing- Summer 2 'Communication & Collaboration'

COMPUTING ELEMENT	LEARNING OBJECTIVES/SKILLS	HARDWARE/SOFTWARE	CROSS-CURRICULAR LINKS/NOTES
<p><u>Communication & Collaboration</u> <u>National Curriculum</u></p> <ul style="list-style-type: none"> understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration. use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. 	<p><u>Recap E-Safety</u></p> <ul style="list-style-type: none"> I understand the need to keep personal information and passwords private in order to protect myself when communicating online. I know how to respond if asked for personal details or in the event of receiving unpleasant communications. I recognise that cyber bullying is unacceptable and will be sanctioned. I know how to report an incident of cyber bullying. <p><u>Blogging (1-2 lessons)</u></p> <ul style="list-style-type: none"> I understand that messages can quickly be sent electronically over distances and that people can reply to them. I know what a 'blog' is. I can make purposeful contributions to a blog. I can make purposeful comments on a blog. 	<p><u>MUST USE CHROME</u></p> <p><u>J2Webby (Blogging)</u> (accessible through my.uso.im) Children 'upload their work to the school blog for others to look at and give feedback (verbal feedback will do)</p> <ul style="list-style-type: none"> You will need to teach them how click on the J2Webby button when they have finished to send it to a moderation area. A teacher must moderate each piece of work in the moderation area before publishing. (in J2Launch). <p><i>Teachers must keep on top of moderating blog posts and comments so that the children do not lose interest.</i></p> <p><u>JiT/J2E5 (Accessible through my.uso.im)</u> Use these programs for creating work that can be published to the school blog. Encourage classes to collaborate so they can comment on eachother's blogs.</p>	<p><u>CURRICULUM LINKS</u></p> <p>ENGLISH <i>Blogging is great for promoting writing.</i></p> <ul style="list-style-type: none"> Use the school blog to publish book reviews, poems, letters & other pieces of writing for children to offer feedback on. <p>GEOGRAPY</p> <ul style="list-style-type: none"> Share information/facts about Cuba