



# ALDINGBOURNE SCHOOL PROGRESSION MAP



## SUBJECT: COMPUTING

### INTENT

We provide an exciting and engaging computing curriculum to all children which equips them to use computational thinking and creativity to understand and change the world. They put their knowledge to use through programming and have the skills to be digitally literate, equipping them to become active participants in a digital world.

AUTUMN	EYFS	KEY STAGE ONE		KEY STAGE TWO			
	YEAR R	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
<b>KNOWLEDGE</b>	<p><b>Technology Around Us</b> What is the ICT Suite? Rules of ICT suite. Parts of a computer. Computer safety.</p> <p><b>Using Technology</b> Mouse control skills - moving the cursor. Create picture using Skidoodle. Logging on and off.</p>	<p><b>Technology Around Us</b> Identifying technology in school. Identifying technology at home. Identifying a computer and its parts. Articulate rules for using technology responsibly. Understand how to use technology safely.</p> <p><b>Using Technology</b> Logging on and off as a Year 1. Turning on a computer and</p>	<p><b>Technology Around Us</b> Identify the uses of technology in school. Identify uses of technology beyond school. Labelling and explaining a computer and its parts.</p> <p><b>Using Technology</b> Logging on and off as a Year 2. Recap turning on and shutting down. Recap accessing a variety of programs including Education</p>	<p><b>Internet Safety</b> What is the world wide web? Understand the different functions of the internet. Use search engines effectively. The internet as a network which offers opportunities for communication and collaboration. Identifying devices that use the internet in and outside of school. Recap personal</p>	<p><b>Internet Safety</b> Recap what the internet is. Identify different functions and purpose of the internet. Staying safe when gaming - different forms of communication. Recognise acceptable and unacceptable behaviour. Variety of ways to report concerns to about content and contact.</p> <p><b>PSHCE</b> Relationships online,</p>	<p><b>Internet Safety</b> Use search engines effectively. Validity and reliability of websites. Trolling. Accountability online. Spam. Variety of ways to report concerns to about content and contact.</p> <p><b>PSHCE</b> Relationships online, personal boundaries online- how to respond safely and appropriately to adults online, social</p>	<p><b>Internet Safety</b> Recap the validity reliability of websites. How websites are ranked. Recap accountability online. Spam - including click bate. Staying safe on social media. Variety of ways to report concerns to about content and contact.</p> <p><b>PSHCE</b> Catfishing,- recognise risks. Manipulating and</p>

		<p>shutting down. Accessing Education City. Mouse skills - left and right button. Features of a keyboard. Location of keys. Collect and input data using 2Graph</p> <p><b>Coding</b> What is an algorithm? What is a program? Importance of precise instructions when programming.</p>	<p>City. Recap mouse skills and use mouse to use shape tools and line tools to create a picture on programs such as Colour Magic and Microsoft word. Add shade and colour. Proficient at finding letter, punctuation, enter, space bar and back space keys on a keyboard. Use shift and esc keys. Organise and manipulate primary and secondary data using 2Graph and Microsoft Excel.</p> <p><b>Coding</b> Embed confidence with creating simple programs. Debug simple programs.</p>	<p>information and the importance of keeping it private. Recap what it is to know someone online. Use technology safely, respectfully and responsibly. Who to report concerns to about content and contact in and outside of school.</p> <p><b>PSHCE</b> <b>Relationships online, stranger danger, managing time, impact of bullying, responding to behaviour witnessed or experienced, privacy, advice, respect online, self-respect</b></p> <p><b>Using Technology</b> Recap what a search engine is. Variety of search engines online.</p> <p><b>Coding</b> Design, write and debug programs that accomplish specific goals - including controlling or simulating physical systems. Use sequence, selection and repetition in programs.</p>	<p><b>risks of communicating online, recognise how an online relationship is making them feel. Report and seek advice</b></p> <p><b>Using Technology</b> Recap what a search engine is. Variety of search engines online and deciding which one to use.</p> <p><b>Coding</b> Recap prior coding. Solve problems by decomposing them into smaller parts. Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms.</p>	<p><b>media, personal data.</b></p> <p><b>Using Technology</b> Recap what a search engine is. Variety of search engines online and deciding which one to use and how the websites will be ranked.</p> <p><b>Coding</b> Recap prior coding. 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>	<p><b>reliability of sources.</b></p> <p><b>Using Technology</b> Recap the different search engines online and decide which one to use and how the websites will be ranked.</p> <p><b>Coding</b> Recap prior coding. Use skills to build programmes that meet a variety of needs. Critically evaluate own work and suggest improvements. Create procedures to hide complexity in programs.</p>
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SKILLS	Technology Around Us	Using Technology	Using Technology	Internet Safety	Internet Safety	Internet Safety	Internet Safety
	<p>Children understand where the ICT Suite is and how to conduct themselves in the ICT Suite. Name, locate and understand the functions of the parts of a computer. Understand how to use a computer safely.</p> <p><b>Using Technology</b> Use a mouse by moving the cursor and to play age appropriate games. Use a mouse to create a basic picture.</p>	<p>Logging on and off as a Year 1. Turning on a computer and shutting down. Accessing Education City. Mouse skills - left and right button. Locate and select the correct key on a keyboard. Collect data, counting number or objects and use this to create a graph to show popularity.</p> <p><b>Coding</b> Articulate what would happen if the program what not precise or in the correct order. Use Beebot to follow instructions precisely.</p>	<p>Articulate how to use technology safely and the different functions of the parts of a computer. Use a keyboard to create text using letter, punctuation, enter, space bar, back space and shift keys. Use the esc key when appropriate. Children can use data given to them or their own data to input it into a program (2Graph and Microsoft Excel). They can present the data in a variety of ways depending on the desired results. They can store their data as a graph or table on the computer.</p> <p><b>Coding</b> Use Studio Code - Pre-reader to create simple programs and debug simple programs. Sequencing - Programming with Angry Birds, Programming with Rey and BB-8 and</p>	<p>Identify devices that use the internet. Use technology, including the internet, safely and responsibly. Who to report concerns to about content and contact in and outside of school.</p> <p><b>Using Technology</b> Use a variety of search engines to find specific images. Understand the meaning of key vocabulary when using the internet such as: copyright, download, filter, scroll up, scroll down, toolbar and type in.</p> <p><b>Coding</b> Use Studio Code - Course C to Design, write and debug programs that accomplish specific goals - including controlling or simulating physical systems. Use sequence, selection and repetition in programmes. Sequencing - Programming with Angry Birds,</p>	<p>Keeping safe when gaming online. Knowing what is acceptable and unacceptable behaviour. Variety of ways to report concerns to about content and contact.</p> <p><b>Using Technology</b> Use a variety of search engines to find answers to specific questions. Understand the meaning of key vocabulary when using the internet such as: address, browse, browser, firewall, homepage, offline, online, URL, virus, webpage, website, wifi and WWW as well, as recapping previous vocabulary.</p> <p><b>Coding</b> Use Studio Code - Course D to recap prior coding and solve problems by decomposing them into smaller parts. Use logical reasoning to explain how some simple algorithms work and to detect and</p>	<p>Understanding how to evaluate the validity and reliability of websites. Spam. Variety of ways to report concerns to about content and contact.</p> <p><b>Using Technology</b> Use a variety of search engines to find websites and evaluating their reliability and validity. Use a search engine effectively only using carefully chosen key words or phrases and not full sentences. Understand the meaning of key vocabulary when using the internet such as: application, banner, bookmarks, clickbait, cookie, favourites, hack, history, phishing and spam, as well as recapping previous vocabulary.</p> <p><b>Coding</b> Use Studio Code - Course E to recap prior coding and work with variables and various forms</p>	<p>Understand how websites are ranked. Be discerning in evaluating digital content. Staying safe on social media. Variety of ways to report concerns to about content and contact.</p> <p><b>Using Technology</b> Recap using a variety of search engines to find websites and evaluating their reliability and validity. Recap how to use a search engine effectively. Understand the meaning of key vocabulary when using the internet such as: hyperlink, LAN and network, as well as previously taught vocabulary.</p> <p><b>Coding</b> Use Studio Code - Course F to recap prior coding and use skills to build programs that meet a variety of needs. Critically evaluate own work and</p>

			Programming with Harvester. Loops - Loops with Scrat and Loops with Laurel. Use Lemmings to create simple programs with longer sequencing and debug simple programs.	Debugging in Maze, Collecting Treasure with Laurel and Creating Art with Code. Loops - Loops with Rey and BB-8, Harvesting Crops with Loops and Mini-Project: Sticker Art.	correct errors in algorithms. Sequencing - Introduction to Online Puzzles and Debugging with Laurel. Events - Events in Bounce, Build a Star Wars Game and Dance Part.	of input and output. Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programmes. Sprites - Swimming Fish with Sprite Lab, Hello World and Mini-Project: About Me. Nested Loops - Drawing with Loops, Fancy Shapes using Nested Loops and Mini-Project: Design a snowflake.	suggest improvements. Create procedures to hide complexity in programs. Sprites - Introducing Sprite Lab, Making Sprites, Sprites in Action and Mini-Project: Virtual Pet. Variables - Text and prompts and Mini-Project: User Input Programs.
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SPRING	EYFS	KEY STAGE ONE		KEY STAGE TWO			
	YEAR R	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
<b>KNOWLEDGE</b>	<b>Internet Safety</b> What is the internet? What do the children have access to that uses the internet? Understand that you need to keep yourself safe when you are using the internet just like in	<b>Internet Safety</b> Accessing the internet. Devices that use the internet. The role of the internet in everyday life. What is personal information/data? Keep personal information private.	<b>Internet Safety</b> Recap various ways of accessing the internet. Recap the importance of keeping personal information private. Who can you have contact with online? That feelings can be hurt by actions	<b>Internet Safety</b> Recap how to use the internet safely. Maintaining a healthy relationship online and knowing how to and who to report concerns too. <b>Communication</b>	<b>Internet Safety</b> Recap how to use the internet safely with a particular focus on gaming and online relationships. Recap who to report concerns to both in person and online. <b>Communication</b>	<b>Internet Safety</b> Recap validity, reliability, trolling, spam and accountability online. Recap who to report concerns to both in person and online and advocate doing so. <b>Communication</b>	<b>Internet Safety</b> Recap catfishing and staying safe on social media. Recap who to report concerns to both in person and online and promote a healthy balance of being online. <b>Communication</b>

	<p>real life. Where to go if you need help or are concerned.</p> <p><b>Using Technology</b> Become proficient in mouse control hand eye coordination.</p> <p><b>Coding</b> To get something to perform a function, you need to need to give it instructions.</p>	<p>That not everything you see on the internet is true, Where to go for help and support.</p> <p><b>Using Technology</b> Proficient in using a mouse. Understand that a computer can create text. Create simple text using Microsoft Word - using letter, punctuation, enter, space bar and back space keys. Save and retrieve a document. Take a digital photo using a camera and storing it on a computer.</p> <p><b>Coding</b> Create simple programs.</p>	<p>online and that people may act differently online. Inappropriate content or contact on the internet. Where to go for help and support.</p> <p><b>Using Technology</b> Continue to become more proficient using a keyboard. Adjust size, font, colour, bold, italic, underline of text. Recap how to save and retrieve a document. Retrieve a digital photo. Manipulate a digital photo. Understand the role of a search engine (including online). Use this to safely search for images. Copy and paste images from a search engine and from a saved document.</p> <p><b>Coding</b> Confident in debugging simple programs. Use logical reasoning to predict the behaviour of simple programs.</p>	<p>Emailing- access own outlook account and send simple email.</p> <p><b>Coding</b> Recap design, write and debug programs that accomplish specific goals - including controlling or simulating physical systems. Use sequence, selection and repetition in more complication programs.</p>	<p>Emailing- As year 3 but attaching a pre-saved document.</p> <p><b>Coding</b> Recap prior coding. Solve increasingly harder problems by decomposing them into smaller parts. Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms.</p>	<p>Emailing- Understand and use BC and CC function. Understand what spam is in relation to emails and how to recognise it.</p> <p><b>Coding</b> Recap prior coding. Work with variables and various forms of input and output. Use logical reasoning to explain how some algorithms work and to detect and correct errors in algorithms and programs.</p>	<p>Emailing- As previous and create a class address book to send group emails. Identify spam and move into a spam folder. How to report spam.</p> <p><b>Coding</b> Recap prior coding. Use skills to build programmes that meet a variety of needs. Critically evaluate own work and suggest improvements. Create procedures to hide complexity in programs.</p>
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		Use Studio Code - Pre-reader to create simple programs. Sequencing - Learn to Drag and Drop, Sequencing with Scrat. Use Lego Knights Kingdom to create simple programs combining commands to make longer sequences.	predict the behaviour of simple programs. Loops - Ocean Scene with loops, Drawing Gardens with loops. Events - On the Move with Events and A Royal Battle with Events.	End of Course Project.	Conditional - Looking Ahead with Minecraft, If/Else with Bee, While Loops in Farmer, Until Loops in Maze and End of Course Project.	Conditionals in Minecraft: Voyage Aquatic, Conditionals with the Farmer, Functions with Harvester and End of Course Project.	Sprites, Counting Variables and Mini Project: Collector Games. Data and Simulations - Simulating Experiments, Outbreak, AI for Oceans and End of Course Project.
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SUMMER	EYFS	KEY STAGE ONE		KEY STAGE TWO			
	YEAR R	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6

<b>KNOWLEDGE</b>				<b>Internet Safety</b> Recap how to use the internet safely. Maintaining a healthy relationship online and knowing how to and who to report concerns too. <b>Using Technology</b> Understanding how to use Microsoft Word to present data and information.	<b>Internet Safety</b> Recap how to use the internet safely with a particular focus on gaming and online relationships. Recap who to report concerns to both in person and online. <b>Using Technology</b> Recap Microsoft Word and apply knowledge to Microsoft PowerPoint.	<b>Internet Safety</b> Recap validity, reliability, trolling, spam and accountability online. Recap who to report concerns to both in person and online and advocate doing so. <b>Using Technology</b> Recap Microsoft Word and PowerPoint and begin to look at Microsoft Excel.	<b>Internet Safety</b> Recap catfishing and staying safe on social media. Recap who to report concerns to both in person and online and promote a healthy balance of being online. <b>Using Technology</b> Recap all Microsoft programs. Design and create content using Microsoft Word, PowerPoint and Excel.

<p><b>SKILLS</b></p>				<p><b>Internet Safety</b> Identify devices that use the internet. Use technology, including the internet, safely and responsibly. Who to report concerns to about content and contact in and outside of school.</p> <p><b>Using Technology</b> Recap how to open, save and retrieve work. Insert picture from file and the internet. Format pictures, changing size and position. Add Wordart. Add a border to a page. Add a border to a picture. Use alignment functions with text. Add a background. Use print preview function and print. Insert a table. Add columns and rows to a table. Centre the information in a table. Format a table by changing the position. Copy and paste one document into another.</p>	<p><b>Internet Safety</b> Keeping safe when gaming online. Knowing what is acceptable and unacceptable behaviour. Variety of ways to report concerns to about content and contact.</p> <p><b>Using Technology</b> As Year 3 plus, to make a page bigger using the percentage function. Crop a picture. To watermark, washout and black/white a picture. To send a picture to the background. To use the spell check function. To shape word art. Navigate a table using the arrow keys. Change the colour and thickness of the lines of a table.</p>	<p><b>Internet Safety</b> Understanding how to evaluate the validity and reliability of websites. Spam. Variety of ways to report concerns to about content and contact.</p> <p><b>Using Technology</b> PowerPoint - As Year 4 plus, centre the information in a table. Format a table by changing the position. Animation. Sound effects. Themes and transitions. Excel - Calculate cell, column, formula(e), model row spreadsheet sum table.</p>	<p><b>Internet Safety</b> Understand how websites are ranked. Be discerning in evaluating digital content. Staying safe on social media. Variety of ways to report concerns to about content and contact.</p> <p><b>Using Technology</b> PowerPoint - As Year 5 plus, insert video and hyperlink. Excel - As Year 5 plus, use the above to calculate using the four operations and represent data.</p>
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# IMPACT (END POINTS)

EYFS	KEY STAGE ONE		KEY STAGE TWO			
YEAR R	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
<p>A Reception Class child can recognise that a range of technology is used at school. They understand that they use the internet at school and at home and who to ask for help if they are concerned. They can navigate their way around a computer using the mouse to play games which require hand eye coordination, create a picture as well as logging on and off.</p>	<p>A Year 1 child can identify technology at school and at home. They can log on and off as a Year 1, turn on and shut down a computer and access a variety of programmes. They are proficient at using a mouse and developing their keyboard skills. They use technology purposefully to create and store work and understand the importance of keeping themselves safe when using technology, especially when on the internet. They understand the importance of keeping personal information private and where to seek help and support if they are concerned. They understand what an algorithm is and what a program is and the importance of precise, unambiguous instruction. They can</p>	<p>A Year 2 child can recognise common uses of information technology beyond school. They are becoming accustomed to the organisation of a quirky keyboard and can find the letter, punctuation, enter, space bar, back space, caps lock, shift and esc keys. They can create and adjust size, font and colour of text. They can organise, manipulate, store and retrieve data/work. They know what is inappropriate content and contact online and where to seek help and support. They can debug simple programs and use logical reasoning to predict the behaviour of simple programmes.</p>	<p>A Year 3 child can understand different functions of the internet and the opportunities for communication and collaboration. They can identify devices that use the internet. They use technology safely, respectfully and responsibly. They can use a variety of search engines. They understand different relationships online and strategies to try to manage their time online. They know who to report concerns. They can log in to their own email account. They can open, write, send, delete and print and email. They can use Word to create and display content. They can design, write and debug programs that accomplish specific goals - including controlling or simulating physical</p>	<p>A Year 4 child can identify different functions and purposes of the internet. They have strategies to stay safe when gaming online and recognise acceptable and unacceptable behaviour and know a variety of ways to report concerns. They can use a variety of search engines and show a preference when searching. They can attach a document to an email. They can send an email to multiple addresses. They can proficiently use Word to create and display content as well as PowerPoint. They can solve problems by decomposing them into smaller parts. Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms.</p>	<p>A Year 5 child understands how to identify the validity and reliability of website as well as the system of ranking online. They understand that they are accountable for themselves online and to ensure they have personal boundaries when online. They understand spam and trolling and the effects of such. They can use the 'bc' and 'cc' function when emailing. They know how to identify junk/spam emails. They can proficiently use Word and PowerPoint to create and display content as well as Excel. They work with variables and various forms of input and output. They use logical reasoning to explain how some simple algorithms work and to detect and</p>	<p>A Year 6 child understands how to keep safe online, including on social media. They understand that spam can come in a variety of forms. They know precautions to prevent themselves from being catfished. They show preference when searching and browsing online and are comfortable to with terminology. They create an email address book. They know how to report spam. They understand computer networks, including the internet and be able to use them safely, respectfully and responsibly. They can proficiently use Word, PowerPoint and Excel to create and display content. They can use block code proficiently and use written code when designing, writing</p>

	create simple programs.		systems. They use sequence, selection and repetition in programs.		correct errors in algorithms and programs.	and debugging simple programs.
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\* PSHCE Internet Safety is taught during PSHCE lessons alongside ICT Internet Safety.