

# 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	
KNOWLEDGE	Technology Around	Technology Around	Technology Around	Internet Safety	Internet Safety	Internet Safety	Internet Safety	
14, 10 11 52552	Us	Us	Us	What is the world	Recap what the	Use search engines	Recap the validity	
	What is the ICT	Identifying	Identify the uses	wide web?	internet is. Identify	effectively. Validity	reliability of	
	Suite? Rules of ICT	technology in	of technology in	Understand the	different functions	and reliability of	websites. How	
	suite. Parts of a	school. Identifying	school. Identify	different functions	and purpose of the	websites. Trolling.	websites are	
	computer. Computer	technology at home.	uses of technology	of the internet. Use	internet. Staying	Accountability	ranked. Recap	
	safety.	Identifying a	beyond school.	search engines	safe when gaming -	online. Spam.	accountability	
	Using Technology	computer and its	Labelling and	effectively. The	different forms of	Variety of ways to	online. Spam –	
	Mouse control skills	parts. Articulate	explaining a	internet as a	communication.	report concerns to	including click bate.	
	- moving the curser.	rules for using	computer and its	network which	Recognise	about content and	Staying safe on	
	Create picture using	technology	parts.	offers	acceptable and	contact.	social media.	
	Skidoodle. Logging	responsibly.	Using Technology	opportunities for	unacceptable	PSHCE	Variety of ways to	
	on and off.	Understand how to	Logging on and off	communication and	behaviour. Variety	Relationships online,	report concerns to	
		use technology	as a Year 2. Recap	collaboration.	of ways to report	personal boundaries	about content and	
		safely.	turning on and	Identifying devices	concerns to about	online- how to	contact.	
		Using Technology	shutting down.	that use the	content and	respond safely and	PSHCE	
		Logging on and off	Recap accessing a	internet in and	contact.	appropriately to	Catfishing,-	
		as a Year 1. Turning	variety of programs	outside of school.	PSHCE	adults online, social	recognise risks.	
		on a computer and	including Education	Recap personal	Relationships online,		Manipulating and	

City. Recap mouse information and the risks of media, personal shutting down. reliability of Accessing Education skills and use mouse importance of communicating data. sources. City. Mouse skills -Using Technology Using Technology to use shape tools keeping it private. online, recognise left and right and line tools to Recap what a Recap the different Recap what it is to how an online button. Features of create a picture on know someone relationship is search engine is. search engines making them feel. Variety of search a keyboard. online and decide programs such as online. Use Location of keys. Colour Magic and technology safely, Report and seek engines online and which one to use Collect and input Microsoft word. respectfully and advice deciding which one and how the Add shade and responsibly. Who to to use and how the websites will be data using 2Graph Using Technology colour. Proficient at websites will be Coding report concerns to Recap what a ranked. What is an finding letter, about content and search engine is. ranked Coding algorithm? What is punctuation, enter, contact in and Variety of search Codina Recap prior coding. space bar and back outside of school. engines online and Recap prior coding. Use skills to build a program? Importance of space keys on a **PSHCE** deciding which one Work with variables programmes that Relationships online, precise instructions keyboard. Use shift to use. and various forms meet a variety of when programming. and esc keys. stranger danger, Codina of input and output. needs. Critically Organise and Recap prior coding. Use logical evaluate own work managing time, manipulate primary impact of bullying, Solve problems by reasoning to explain and suggest and secondary data responding to decomposing them how some simple improvements. using 2Graph and behaviour witnessed into smaller parts. algorithms work and Create procedures to hide complexity Microsoft Excel. or experienced. Use logical to detect and Coding privacy, advice, reasoning to explain correct errors in in programs. algorithms and Embed confidence respect online, selfhow some simple with creating simple algorithms work and respect programs. programs. Debug Using Technology to detect and simple programs. Recap what a correct errors in search engine is. algorithms. Variety of search engines online. Coding Design, write and debug programs that accomplish specific goals including controlling or simulating physical systems. Use sequence, selection and repetition in programs.

#### **SKILLS**

# Technology Around Us

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.

# Using Technology

Use a mouse by moving the curser and to play age appropriate games. Use a mouse to create a basic picture.

Using Technology 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

#### show popularity. Coding

objects and use this

to create a graph to

Articulate what would happen if the program what not precise or in the correct order. Use Beebot to follow instructions precisely.

Using Technology 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

> Coding 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

graph or table on the computer.

Internet Safety 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.

Using Technology 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. Coding

Use Studio Code -

Course C to Design, recapping previous write and debug programs that accomplish specific Use Studio Code goals - including controlling or simulating physical systems. Use sequence, selection and repetition in programmes.

Sequencing -

Programming with

Angry Birds,

Course D to recap prior coding and solve problems by decomposing them into smaller parts.

Using Technology

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

vocabulary.

Codina

Use logical reasoning to explain how some simple algorithms work and

to detect and

Internet Safety Internet Safety

Keeping safe when Understanding how to evaluate the gaming online. validity and Knowing what is acceptable and reliability of unacceptable websites, Spam. behaviour. Variety Variety of ways to of ways to report report concerns to concerns to about about content and content and contact. contact.

Using Technology 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

such as: application, banner, bookmarks, clickbait, cookie. favourites, hack,

vocabulary when

using the internet

history, phishing and spam, as well as recapping previous vocabulary.

## Codina

Use Studio Code -Course E to recap prior coding and work with variables and various forms

Internet Safety Understand how

websites are ranked. Be discernina in evaluating digital content. Staying safe on social media.

Variety of ways to report concerns to about content and contact.

Using Technology

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.

Coding

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

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,	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.
			Me. Nested Loops –	~

SPRING	EYFS	KEY STA	IGE ONE	E ONE KEY STAG		AGE TWO	
	YEAR R	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
KNOWLEDGE	Internet Safety	Internet Safety	Internet Safety	Internet Safety	Internet Safety	Internet Safety	Internet Safety
141 15 11 5555	What is the	Accessing the	Recap various ways	Recap how to use	Recap how to use	Recap validity,	Recap catfishing
	internet? What do	internet.	of accessing the	the internet safely.	the internet safely	reliability, trolling,	and staying safe on
	the children have	Devices that use	internet. Recap the	Maintaining a	with a particular	spam and	social media. Recap
	access to that uses	the internet. The	importance of	healthy relationship	focus on gaming and	accountability	who to report
	the internet?	role of the internet	keeping personal	online and knowing	online relationships.	online. Recap who to	concerns to both in
	Understand that	in everyday life.	information private.	how to and who to	Recap who to report	report concerns to	person and online
	you need to keep	What is personal	Who can you have	report concerns	concerns to both in	both in person and	and promote a
	yourself safe when	information/data?	contact with online?	too.	person and online.	online and advocate	healthy balance of
	you are using the	Keep personal	That feelings can	Communication	Communication	doing so.	being online.
	internet just like in	information private.	be hurt by actions			Communication	Communication

real life. Where to That not everything Emailing- access Emailing- As year 3 Emailing-Emailing- As online and that own outlook account but attaching a prego if you need help you see on the people may act Understand and use previous and create differently online. saved document. BC and CC function. a class address or are concerned. internet is true. and send simple Understand what book to send group Using Technology Where to go for Inappropriate Coding email. Recap prior coding. Become proficient help and support. content or contact Coding spam is in relation emails. Identify Recap design, write Solve increasingly to emails and how to spam and move into in mouse control Using Technology on the internet. harder problems by hand eye Proficient in using a Where to go for and debug programs recognise it. a spam folder. How coordination. mouse. Understand help and support. that accomplish decomposing them Coding to report spam. Using Technology specific goals into smaller parts. Recap prior coding. Coding that a computer can Coding To get something to Recap prior coding. including controlling Use logical Work with variables create text. Create Continue to become perform a function, simple text using more proficient or simulating reasoning to explain and various forms Use skills to build you need to need to Microsoft Word using a keyboard. physical systems. how some simple of input and output. programmes that Adjust size, font, algorithms work and Use logical meet a variety of give it instructions. using letter, Use sequence, punctuation, enter, colour, bold, italic, selection and to detect and reasoning to explain needs. Critically underline of text. how some space bar and back repetition in more correct errors in evaluate own work and suggest space keys. Recap how to save complication algorithms. algorithms work and Save and retrieve a and retrieve a programs. to detect and improvements. document. Take a document. Retrieve Create procedures correct errors in to hide complexity digital photo using a a digital photo. algorithms and camera and storing Manipulate a digital in programs. programs. photo. it on a computer. Understand the role Coding Create simple of a search engine (including online). programs. Use this to safely search for images. Copy and paste images from a search engine and from a saved document. Coding Confident in debugging simple programs. Use logical reasoning to predict the behaviour of simple programs.

#### **SKILLS**

Internet Safety Children understand that they use the internet at school and at home. They know where to report concerns and who to ask for help. Using Technology Children become more proficient using a mouse to complete simple programs on a computer which require hand eye coordination.

#### Coding

Simple programming (forwards, backwards, left and right) using: Beebot and 2Go.

Internet Safety Accessing the internet.

Keeping personal information private. Where to go for help and support. Using Technology Proficient in using a mouse across a variety of programs.

Understanding the functions of the left and right hand sides. Use this to access and close apps and programs as well as draw accurately to create a digital

image. Understand that a computer can create text. Compare this writing on a computer to writing on paper, 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.

Coding

# Internet Safety

Knowing the difference between knowing someone online and knowing someone in real life. Identifying inappropriate content or contact on the internet. Where to go for help and support. Using Technology 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. Coding Use Studio Code -Pre-reader to

create simple

programs, debug

simple programs and

Internet Safety 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.

Communication Log onto personal

outlook account. Send a simple email including a subject and address. Open and delete an email. Print an Email.

#### Coding

Binary Bracelets

and

Use Studio Code -Course C to Design, write and debua programs that accomplish specific goals - including controlling or simulating physical systems. Use sequence, selection and repetition in programmes. Events - Build a Flappy Game, and Mini-Project: Chase Game. Data -Picturing Data,

Internet Safety

Keeping safe when gaming online. Knowing what is acceptable and unacceptable behaviour. Variety of ways to report concerns to about content and contact

# Communication

Recap logging on and previous skills. Attach word document and pictures to email. Send multiple files. Change theme of email page. Send email to multiple addresses.

Codina 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 correct errors in algorithms. Loops -Loops in Ice Age, Drawing Shapes with Loops and Nested Loops in Maze.

# Internet Safety

Understanding how to evaluate the validity and reliability of websites, Spam. Variety of ways to report concerns to about content and contact. Communication

Recap logging on and previous skills. Use the 'bc' and 'cc' function when sending emails. Understand spam and how to spot potential spam/ junk emails.

#### Coding

Use Studio Code -Course E to recap prior coding and 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 programmes. Functions -Functions in Minecraft and Functions with Artist, Conditional -

## Internet Safety

Understand how websites are ranked. Be discernina in evaluating digital content. Staying safe on social media. Variety of ways to report concerns to about content and contact.

#### Communication

Recap all previous knowledge. Create a class address book of email addresses and own email groups. Identify spam or junk and know how to move this into a iunk folder and report it.

#### Coding

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 suggest improvements. Create procedures to hide complexity in programs. Variables - Lots of

Use Studio	Code - predict the	End of Course	Conditional -	Conditionals in	Sprites, Counting
Pre-read	der to behaviour of simple	Project.	Looking Ahead with	Minecraft: Voyage	Variables and
create s	imple programs. Loops -		Minecraft, If/Else	Aquatic,	Mini Project:
progra	ms. Ocean Scene with		with Bee,	Conditionals with	Collector Games.
Sequencing	g - Learn loops, Drawing		While Loops in	the Farmer,	Data and
to Drag an	d Drop, Gardens with loops		Farmer, Until Loops	Functions with	Simulations -
Sequencia	ng with Events - On the		in Maze and	Harvester and End	Simulating
Scro	t. Move with Events		End of Course	of Course Project.	Experiments,
Use Lego	Knights and A Royal Battle		Project.		Outbreak,
Kingdom to	create with Events.				AI for Oceans and
simple pro	ograms				End of Course
combin	ning				Project.
commands	to make				
longer seq	uences.				

SUMMER	EYFS	KEY STA	GE ONE	KEY STAGE TWO				
	YEAR R	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	
KNOWLEDGE				Internet Safety Recap how to use the internet safely. Maintaining a healthy relationship online and knowing how to and who to report concerns too. Using Technology Understanding how to use Microsoft Word to present data and information.	Internet Safety 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. Using Technology Recap Microsoft Word and apply knowledge to Microsoft PowerPoint.	Internet Safety Recap validity, reliability, trolling, spam and accountability online. Recap who to report concerns to both in person and online and advocate doing so. Using Technology Recap Microsoft Word and PowerPoint and begin to look at Microsoft Excel.	Internet Safety 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. Using Technology Recap all Microsoft programs. Design and create content using Microsoft Word, PowerPoint and Excel.	

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

# IMPACT (END POINTS)

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

create simple	systems. They use	correct errors in	and debugging simple
programs.	sequence, selection and	algorithms and	programs.
	repetition in programs.	programs.	

<sup>\*</sup> PSHCE Internet Safety is taught during PSHCE lessons alongside ICT Internet Safety.