

# SUBJECT LEADER IMPACT - COMPUTING

Presentation for staff and  
Governors  
Sarah Igoe

*“Enabling life in all its fullness”*

**“I came that you may have life, life in all its fullness” (John10:10)**

Our **Core Christian values** for our school are: *Perseverance, Creativity, Trust and Friendship.*



**The most important thing about Computing is connecting with others**

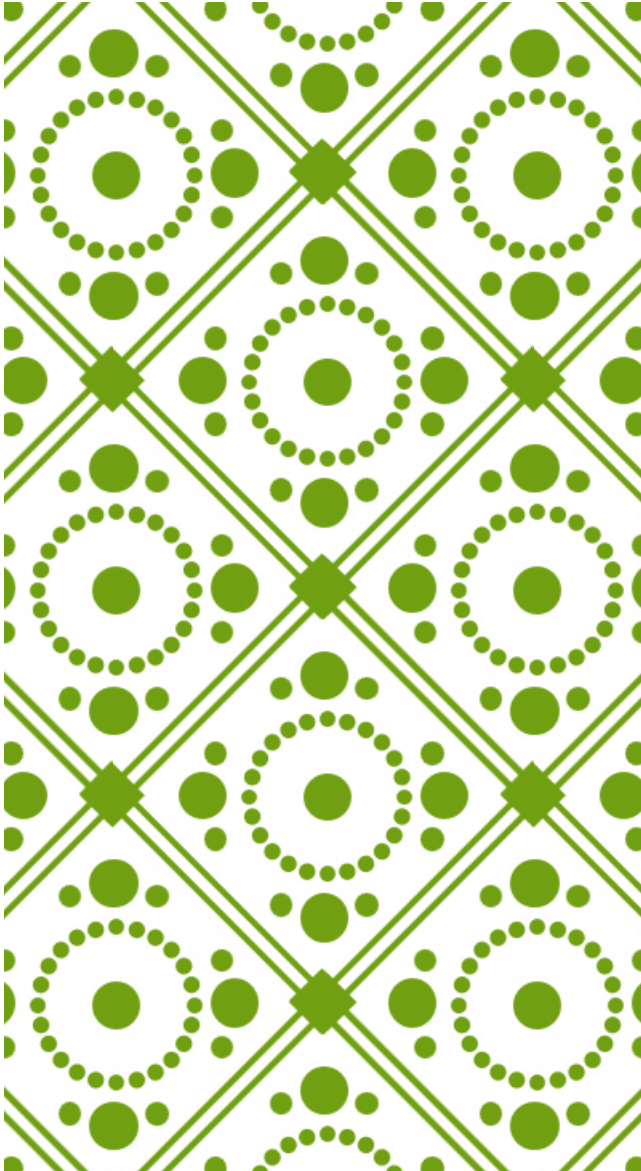
**We are informed about e-safety**

**We are confident in digital literacy**

**We are masters of technology**

**And it helps us to see a rapidly changing world through technology's eyes**

**But most important thing about Computing is connecting with others**



- Policy updated and on website: Yes
- Website updated: in process (with Sarah)
- (intent poem, updated policy, photos, pupil voice/feedback, links to progression docs/ vocab/ parental links etc)
- Ofsted outstanding schools and research into a scheme to support high quality primary computing in all year groups.

I have used this scheme to update our school policy and progression skills to ensure teachers have guidance for assessment.

E-safety taught regularly in all year groups, policy updated

Acceptable internet usage updated and circulated with staff

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# COMPUTING

# PUPIL VOICE



Phonics



Beebot learning – direction linked to maths



Coding



Multiplication screening check



SENd supporting and challenging learning

# PUPIL VOICE

Y1 Using the beebots was great fun, when it went the wrong way we had to work out why and change it. It was a bit tricky at first.

Y3 It was really exciting as we only get them out once in a while. I liked moving up through the levels and it was a little bit tricky at times. I liked using it at home.

# IMPLEMENTATION

YEAR	STRAND						Progression of skills and knowledge
	Programming	Computational thinking	Creativity	Computer networks	Communication/collaboration	Productivity	
	Planning, writing and testing computer programs for digital devices, from floor turtles to tablets.	Some of the computer science foundations – particularly algorithms, logical reasoning and decomposing problems into smaller parts.	Creating and refining original content using digital tools across a range of media.	Using and understanding the internet, the web and search engines, effectively and safely.	Making the most of computers and the internet for communicating with one or many, and working together on projects.	Collecting and analysing data and information using computers; organising, manipulating and presenting this to an audience.	
<b>1</b>	ENHANCED Unit 1.1 – We are treasure hunters	ENHANCED Unit 1.2 – We are TV chefs	ENHANCED Unit 1.3 – We are painters	NEW Unit 1.4 – We are collectors	ENHANCED Unit 1.5 – We are storytellers	ENHANCED Unit 1.6 – We are celebrating	
<b>2</b>	ENHANCED Unit 2.1 – We are astronauts	NEW Unit 2.2 – We are games' testers	NEW Unit 2.3 – We are photographers	ENHANCED Unit 2.4 – We are researchers	ENHANCED Unit 2.5 – We are detectives	ENHANCED Unit 2.6 – We are zoologists	
<b>3</b>	ENHANCED Unit 3.1 – We are programmers	NEW Unit 3.2 – We are bug fixers	ENHANCED Unit 3.3 – We are presenters	NEW Unit 3.4 – We are network engineers	ENHANCED Unit 3.5 – We are communicators	ENHANCED Unit 3.6 – We are opinion pollsters	
<b>4</b>	NEW Unit 4.1 – We are software developers	NEW Unit 4.2 – We are toy designers	ENHANCED Unit 4.3 – We are musicians	NEW Unit 4.4 – We are html editors	ENHANCED Unit 4.5 – We are co-authors	ENHANCED Unit 4.6 – We are meteorologists	
<b>5</b>	NEW Unit 5.1 – We are game developers	NEW Unit 5.2 – We are cryptographers	ENHANCED Unit 5.3 – We are artists	ENHANCED Unit 5.4 – We are web developers	ENHANCED Unit 5.5 – We are bloggers	ENHANCED Unit 5.6 – We are architects	
<b>6</b>	NEW Unit 6.5 – We are mobile app developers	NEW Unit 6.2 – We are project managers	NEW Unit 6.6 – We are marketers	NEW Unit 6.1 – We are app planners	NEW Unit 6.4 – We are interface designers	NEW Unit 6.3 – We are market researchers	

YEAR 1	
National Curriculum Requirements at KS1	
Pupils should be taught: <ul style="list-style-type: none"> <li>• Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions</li> <li>• Create and debug simple programs</li> <li>• Use logical reasoning to predict the behaviour of simple programs</li> </ul>	<ul style="list-style-type: none"> <li>• Use technology purposefully to create, organise, store, manipulate and retrieve digital content</li> <li>• Recognise common uses of information technology beyond school</li> <li>• Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.</li> </ul>

Programme of study, skills and vocabulary					
Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
'We are treasure hunters'	'We are TV chefs'	'We are digital artists'	'We are collectors'	'We are storytellers'	'We are detectives'
Computer Science	Information Technology Digital Literacy	Information Technology	Computer Science	Computer Science Digital Literacy Information Technology	Digital Literacy Information Technology
<ul style="list-style-type: none"> <li>• I can follow and give instructions to move around a large space</li> <li>• I can record a set of instructions for a toy</li> <li>• I can program a toy to move by giving one instruction at a time</li> <li>• I can program a toy to move by giving a set of instructions</li> <li>• I can create a program to move a toy to a particular location</li> <li>• I understand input, program and output in the context of a robotic toy</li> <li>• I can debug a program (recognising mistakes in the input)</li> </ul>	<ul style="list-style-type: none"> <li>• I can sequence and correctly order steps</li> <li>• I can use technology purposefully to create a digital video</li> <li>• I can save my video to the computer</li> <li>• I can predict and reason what will happen when following a simple program</li> <li>• I can correct a sequence by identifying missing steps</li> </ul>	<ul style="list-style-type: none"> <li>• I can use a paint program to create an illustration</li> <li>• I can edit an image</li> <li>• I can combine multiple illustrations in to single document</li> <li>• I can export a document in a portable format</li> <li>• I know what to do if I find inappropriate images</li> <li>• I can find relevant illustrations on the web</li> <li>• I can make improvements to an image making paint software</li> <li>• I can retrieve previously saved work</li> <li>• I can give constructive feedback to other pupils</li> </ul>	<ul style="list-style-type: none"> <li>• I can search for images using online galleries</li> <li>• I can copy an image from the web and paste it into a presentation</li> <li>• I can move images in a presentation</li> <li>• I know what to do if I discover bad images</li> <li>• I can organise images into groups</li> <li>• I can identify the difference between clip art and digital photographs</li> <li>• I can resize images</li> <li>• I know that I should not post personal information or photos to the web</li> <li>• Use binary (yes/no) questions to identify images from their collections</li> <li>• Add text labels</li> </ul>	<ul style="list-style-type: none"> <li>• I can plan and rehearse the sound effects needed in an audio book</li> <li>• I can plan and rehearse the dialogue needed in an audio book</li> <li>• I can record sound effects using a digital audio recorder/software</li> <li>• I can record dialogue directly to a computer</li> <li>• I will be able to retrieve previously saved work</li> <li>• I can review and improve sound effect recordings</li> <li>• I can review and improve dialogue recordings</li> <li>• I can give constructive feedback to other pupils</li> </ul>	<ul style="list-style-type: none"> <li>• I can record audio or written notes from an email or attachment.</li> <li>• I can explain why it is important to type email address correctly</li> <li>• I can read emails</li> <li>• I can compose and respond to emails.</li> <li>• I can understand headers of an email.</li> <li>• I can proofread emails before sending</li> <li>• I can identify the two parts of an email address</li> </ul>

# PROGRESSION OF SKILLS

## Computing in EYFS

Learning in EYFS is based upon the children's interests and therefore planning is flexible and adaptable. Children have daily opportunities to use technology, to solve problems and produce creative outcomes. In particular, children use the interactive white board to enhance daily learning. They develop early programming skills by using Beebots and capture their play through photos and videos using cameras. Children take part in regular internet safety discussions throughout the year.

Year 1	E-Safety	Programming	Handling Data	Multimedia	Technology in our lives
	<ul style="list-style-type: none"> <li>•I can keep my password private.</li> <li>•I can tell you what personal information is.</li> <li>•I can tell an adult when I see something unexpected or worrying online.</li> <li>•I can talk about why it's important to be kind and polite.</li> <li>•I can recognise an age appropriate website.</li> <li>•I can agree and follow sensible e-Safety rules</li> </ul>	<ul style="list-style-type: none"> <li>•I can give instructions to my friend and follow their instructions to move around.</li> <li>•I can describe what happens when I press buttons on a robot.</li> <li>•I can press the buttons in the correct order to make my robot do what I want.</li> <li>•I can describe what actions I will need to do to make something happen and begin to use the word algorithm.</li> <li>•I can begin to predict what will happen for a short sequence of instructions.</li> <li>•I can begin to use software/apps to create movement and patterns on a screen.</li> <li>•I can use the word debug when I correct mistakes when I program</li> </ul>	<ul style="list-style-type: none"> <li>•I can talk about the different ways in which information can be shown.</li> <li>•I can use technology to collect information, including photos, video and sound.</li> <li>•I can sort different kinds of information and present it to others.</li> <li>•I can add information to a pictograph and talk to you about what I have found out.</li> </ul>	<ul style="list-style-type: none"> <li>•I can be creative with different technology tools.</li> <li>•I can use technology to create and present my ideas.</li> <li>•I can use the keyboard or a word bank on my device to enter text.</li> <li>•I can save information in my folder on the common drive and retrieve it again</li> </ul>	<ul style="list-style-type: none"> <li>•I can recognise the ways we use technology in our classroom.</li> <li>•I can recognise ways that technology is used in my home and community.</li> <li>•I can use links to websites to find information.</li> <li>•I can begin to identify some of the benefits of using technology.</li> </ul>



# SWITCHED ON COMPUTING

Support teachers with lesson plans, step-by-step teaching slides and CPD videos.

Check pupils' knowledge and understanding and identify gaps in learning with self-marking, online quizzes at the end of each unit.

Measure impact and track pupil progress against learning expectations in each unit and across the curriculum with a quick and easy tracking document.

Training videos as part of the resources, can be shared with the class too. This means the process of learning new skills can be collaborative.



# ASSESSMENT

Power of 10 – Monitoring attainment in relation to their reading, writing maths attainment

Working to support staff to recognise and feel confident in awarding ARE+ /GD attainment to pupils

Some year groups have noticeable lower GD achievement – new scheme will help with judging assesment.

Year Group	Computing	Computing	Computing	Computing	Computing	Computing
Year 1	ARE+	ARE+	ARE+	ARE+	ARE+	ARE+
Year 2	ARE	ARE	ARE	ARE	ARE	ARE
Year 3	GD	GD	GD	GD	GD	GD
Year 4	ARE	ARE	ARE	ARE	ARE	ARE
Year 5	GD	GD	GD	GD	GD	GD
Year 6	ARE+	ARE+	ARE+	ARE+	ARE+	ARE+
Year 7	ARE	ARE	ARE	ARE	ARE	ARE
Year 8	GD	GD	GD	GD	GD	GD
Year 9	ARE	ARE	ARE	ARE	ARE	ARE
Year 10	GD	GD	GD	GD	GD	GD
Year 11	ARE	ARE	ARE	ARE	ARE	ARE
Year 12	GD	GD	GD	GD	GD	GD
Year 13	ARE	ARE	ARE	ARE	ARE	ARE
Year 14	GD	GD	GD	GD	GD	GD
Year 15	ARE	ARE	ARE	ARE	ARE	ARE
Year 16	GD	GD	GD	GD	GD	GD
Year 17	ARE	ARE	ARE	ARE	ARE	ARE
Year 18	GD	GD	GD	GD	GD	GD
Year 19	ARE	ARE	ARE	ARE	ARE	ARE
Year 20	GD	GD	GD	GD	GD	GD
Year 21	ARE	ARE	ARE	ARE	ARE	ARE
Year 22	GD	GD	GD	GD	GD	GD
Year 23	ARE	ARE	ARE	ARE	ARE	ARE
Year 24	GD	GD	GD	GD	GD	GD
Year 25	ARE	ARE	ARE	ARE	ARE	ARE
Year 26	GD	GD	GD	GD	GD	GD
Year 27	ARE	ARE	ARE	ARE	ARE	ARE
Year 28	GD	GD	GD	GD	GD	GD
Year 29	ARE	ARE	ARE	ARE	ARE	ARE
Year 30	GD	GD	GD	GD	GD	GD
Year 31	ARE	ARE	ARE	ARE	ARE	ARE
Year 32	GD	GD	GD	GD	GD	GD
Year 33	ARE	ARE	ARE	ARE	ARE	ARE
Year 34	GD	GD	GD	GD	GD	GD
Year 35	ARE	ARE	ARE	ARE	ARE	ARE
Year 36	GD	GD	GD	GD	GD	GD
Year 37	ARE	ARE	ARE	ARE	ARE	ARE
Year 38	GD	GD	GD	GD	GD	GD
Year 39	ARE	ARE	ARE	ARE	ARE	ARE
Year 40	GD	GD	GD	GD	GD	GD
Year 41	ARE	ARE	ARE	ARE	ARE	ARE
Year 42	GD	GD	GD	GD	GD	GD
Year 43	ARE	ARE	ARE	ARE	ARE	ARE
Year 44	GD	GD	GD	GD	GD	GD
Year 45	ARE	ARE	ARE	ARE	ARE	ARE
Year 46	GD	GD	GD	GD	GD	GD
Year 47	ARE	ARE	ARE	ARE	ARE	ARE
Year 48	GD	GD	GD	GD	GD	GD
Year 49	ARE	ARE	ARE	ARE	ARE	ARE
Year 50	GD	GD	GD	GD	GD	GD
Year 51	ARE	ARE	ARE	ARE	ARE	ARE
Year 52	GD	GD	GD	GD	GD	GD
Year 53	ARE	ARE	ARE	ARE	ARE	ARE
Year 54	GD	GD	GD	GD	GD	GD
Year 55	ARE	ARE	ARE	ARE	ARE	ARE
Year 56	GD	GD	GD	GD	GD	GD
Year 57	ARE	ARE	ARE	ARE	ARE	ARE
Year 58	GD	GD	GD	GD	GD	GD
Year 59	ARE	ARE	ARE	ARE	ARE	ARE
Year 60	GD	GD	GD	GD	GD	GD
Year 61	ARE	ARE	ARE	ARE	ARE	ARE
Year 62	GD	GD	GD	GD	GD	GD
Year 63	ARE	ARE	ARE	ARE	ARE	ARE
Year 64	GD	GD	GD	GD	GD	GD
Year 65	ARE	ARE	ARE	ARE	ARE	ARE
Year 66	GD	GD	GD	GD	GD	GD
Year 67	ARE	ARE	ARE	ARE	ARE	ARE
Year 68	GD	GD	GD	GD	GD	GD
Year 69	ARE	ARE	ARE	ARE	ARE	ARE
Year 70	GD	GD	GD	GD	GD	GD
Year 71	ARE	ARE	ARE	ARE	ARE	ARE
Year 72	GD	GD	GD	GD	GD	GD
Year 73	ARE	ARE	ARE	ARE	ARE	ARE
Year 74	GD	GD	GD	GD	GD	GD
Year 75	ARE	ARE	ARE	ARE	ARE	ARE
Year 76	GD	GD	GD	GD	GD	GD
Year 77	ARE	ARE	ARE	ARE	ARE	ARE
Year 78	GD	GD	GD	GD	GD	GD
Year 79	ARE	ARE	ARE	ARE	ARE	ARE
Year 80	GD	GD	GD	GD	GD	GD
Year 81	ARE	ARE	ARE	ARE	ARE	ARE
Year 82	GD	GD	GD	GD	GD	GD
Year 83	ARE	ARE	ARE	ARE	ARE	ARE
Year 84	GD	GD	GD	GD	GD	GD
Year 85	ARE	ARE	ARE	ARE	ARE	ARE
Year 86	GD	GD	GD	GD	GD	GD
Year 87	ARE	ARE	ARE	ARE	ARE	ARE
Year 88	GD	GD	GD	GD	GD	GD
Year 89	ARE	ARE	ARE	ARE	ARE	ARE
Year 90	GD	GD	GD	GD	GD	GD
Year 91	ARE	ARE	ARE	ARE	ARE	ARE
Year 92	GD	GD	GD	GD	GD	GD
Year 93	ARE	ARE	ARE	ARE	ARE	ARE
Year 94	GD	GD	GD	GD	GD	GD
Year 95	ARE	ARE	ARE	ARE	ARE	ARE
Year 96	GD	GD	GD	GD	GD	GD
Year 97	ARE	ARE	ARE	ARE	ARE	ARE
Year 98	GD	GD	GD	GD	GD	GD
Year 99	ARE	ARE	ARE	ARE	ARE	ARE
Year 100	GD	GD	GD	GD	GD	GD

# IMPACT SO WHAT?!

How have I made a difference? Evidence from golden file

1. Assessment points and data- annual so made end of unit for regularity-comparison between areas taught
2. Research into scheme of learning has meant we know have a clear progression of skills and learning for all year groups. We can now work towards more ARE+/GD attainment points.
3. All children were able to engage with Home learning throughout lockdown due to school laptops being made available to disadvantaged families.
4. New screen in hub allowing additional resources/support for small group work. Ensuring finger on the pulse and all children are able to make progress.

# REFLECTION

Covid:

Aware children had spent a long period of time using technology to access learning, some maybe using technology a lot through the day with no school

Laptop refurbishment – we have had a very generous donation of 16 Dell laptops, through further funding and grants we have been able to get a further 16 laptops. This means we will have 2 full sets of laptops allowing 2 classes to have one between 2 for learning.

These laptops have taken time to set up on the network and have all suitable software installed. Covid restrictions have slowed this process

A new scheme (Switched on Computing) has been carefully researched, trialed and then shared with staff. This will allow for progression of skills to be clearly covered in all year groups and will also help more pupils to achieve a higher attainment.