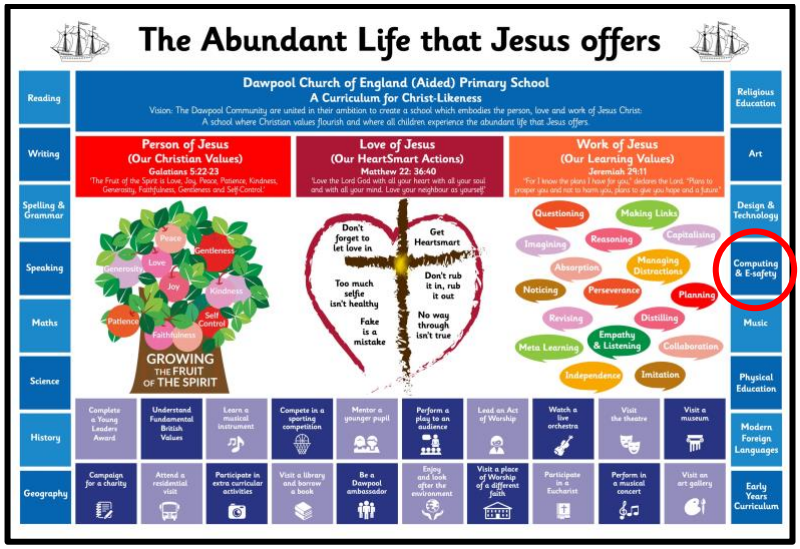
Dawpool C.E. (Aided) Primary School

DAWPOOL

A Dawpool Computer-User

Computing & E-safety



Vision Statement

'The Dawpool community are united in their ambition to create a school which embodies the **person, love and work** of **Jesus Christ**: a school which enables **Christian values to flourish** and where all children may experience the **abundant life that Jesus offers**.'

'The Fruit of the Spirit is Love, Joy, Peace, Patience, Kindness, Generosity, Faithfulness, Gentleness and Self-Control' (Galatians 5: 22-23).

Dawpool C.E (Aided) Primary School
School Lane
Thurstaston
Wirral
CH61 0HH

0151 648 3412
schooloffice@dawpool.wirral.sch.uk
www.dawpool-ce.eschools.co.uk
@DawpoolCofE

How does Computing contribute to the 'Abundant Life'?

Computing prepares pupils to participate in a rapidly changing world in which work and other activities are increasingly transformed by access to varied and developing technology. Pupils use computers to find, explore, analyse, exchange and present information responsibly, creatively and with discrimination. They learn how to employ computers to enable rapid access to ideas and experiences from a wide range of people, communities and cultures. Increased capability in the use of computers promotes initiative and independent learning, with pupils being able to make informed judgements about when and where to use computers to best effect, and to consider its implications for home and work both now and in the future.

Dawpool's Vision for Computing

On completion of the Computing curriculum at Dawpool, pupils will have:

- *Used a range of applications and devices with increasing confidence.*
- *Developed practical skills in the use of information technology and the ability to use them to communicate ideas throughout the curriculum.*
- *Considered the capabilities and limitations of information technology and the implications and consequences of its use.*
- *Practical experience of coding and programming.*
- *Experience of collecting, organising and manipulating data.*
- *Understood how to connect with others safely and respectfully and the need to act within the law and with integrity.*

National Curriculum for Computing

The National Curriculum for Computing at Key Stages 1 and 2 can be downloaded from the 'Curriculum' tab of the Dawpool school website.

Key stage 1

Pupils should be taught to:

- understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions
- create and debug simple programs
- use logical reasoning to predict the behaviour of simple programs

- use technology purposefully to create, organise, store, manipulate and retrieve digital content
- recognise common uses of information technology beyond school
- 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.

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.

A Foundation Stage Computer User

A Foundation Stage Computer User	
Class	**Development Matters Statements**
Foundation 1	There are no specific Development Matters statements or Early Learning Goals for Computing.
Foundation 2	

Term	Topic	Activities which may be included. Please note the nature of the EYFS means planning changes daily.
Autumn Term	**Getting to Know You**	• Through HeartSmart, children will be taught about safe use of technology and why it is important. • Children will be shown how to use age-appropriate apps on the iPad. • Children will use the painting tools to create their own pictures. • Children will use the camera to take pictures, then use apps to change the images. • During topics, we will use the internet to research the topic. Children will be shown how the internet can be used to find out information. We will discuss the different ways it can help us. • Children will have access to different types of technology within the classroom; CD players, talking pegs, recordable books, i-pads, programmable toys, microphones and stopwatches.
Spring Term	**Superheroes**	
Summer Term	**Disney Around the World**	

A Year 1 Computer User at Dawpool

Year 1 algorithms and programming

- I can create a series of instructions.
- I can plan a journey for a programmable toy.

Year 1 information technology

- I can create digital images.
- I can open digital content.
- I can save digital content.
- I can use a website.
- I can use an IPad or tablet
- I can record sounds and play back (for example, recording stories, weather reports)

Year 1 digital literacy

- I can use technology safely.
- I know that passwords help to keep my information private

log in	**username**	**password**	**avatar**
my work	**topics**	**log out**	**open**
save	**notification**	**tools**	**sort**
criteria	**pictogram**	**data**	**collate**
instruction	**computer**	**program**	**direction**
rewind	**left turn**	**right turn**	**forwards**
backwards	**challenge**	**arrow**	**debug**
algorithm	**undo**	**animation**	**font**
sound effect	**E-book**	**file**	**action**
character	**command**	**coding**	**input**
sound	**output**	**object**	**stop command**
clicked	**arrow key**	**back space**	**cell**
clip art	**cursor**	**delete key**	**column**

row	spreadsheet	technology	

A Year 2 Computer User at Dawpool

Year 2 algorithms and programming

- I can use a range of instructions (e.g. direction, angles, turns).
- I can test and amend a set of instructions.
- I can find errors and amend. (debug)
- I can write a simple program and test it.
- I can predict what the outcome of a simple program will be (logical reasoning).
- I understand that algorithms are used on digital devices.
- I understand that programs require precise instructions.

Year 2 information technology

- I can organise digital content.
- I can retrieve and manipulate digital content.
- I can navigate the web to complete simple searches.
- Digital literacy
- I use technology respectfully.
- I know where to go for help if I am concerned.
- I know how technology is used in school and outside of school.

Coding	Online Safety	Spreadsheets	Questioning
action, character, command, algorithm, code block, debug / debugging, design mode, code design, bug, command, input, properties, timer, object, repeat, scale, when clicked, when key	search, display board, internet, sharing, email, attachment, digital footprint,	backspace, count tool, copy and paste, columns, rows, move cell tool, delete key, speak tool, equals tool, cells, image toolbox, lock tool, spreadsheet	pictogram, collate, avatar, binary tree, database, question, data

Effective Searching	Creating Pictures	Making Music	Presenting Ideas
internet, search, search engine	impressionism, share, surrealism, pointillism, palette, template	bpm, instrument, soundtrack, tempo, volume, sound effects, music, digitally, composition, sound effects (sfx)	Concept map (mind map), node, quiz, narrative, audience, non-fiction, presentation, animated

A Year 1 & 2 *Safe* Computer User at Dawpool

Year 1 & 2 knowledge and understanding

- I understand the different methods of communication (e.g. email, online forums etc).
- I know you should only open email from a known source.
- I know the difference between email and communication systems such as blogs and wikis.
- I know that websites sometimes include pop-ups that take me away from the main site.
- I know that bookmarking is a way to find safe sites again quickly.
- I have begun to evaluate websites and know that everything on the internet is not true.
- I know that it is not always possible to copy some text and pictures from the internet.
- I know that personal information should not be shared online.
- I know I must tell a trusted adult immediately if anyone tries to meet me via the internet.

Year 1 & 2 skills

- I follow the school's safer internet rules.
- I can use the search engines agreed by the school.
- I know what to do if I find something inappropriate online or something I am unsure of (including identifying people who can help; minimising screen; online reporting using school system etc).

- I can use the internet for learning and communicating with others, making choices when navigating through sites.
- I can send and receive email as a class.
- I can recognise advertising on websites and learn to ignore it.
- I can use a password to access the secure network.

A Year 3 Computer User at Dawpool

Year 3 algorithms and programming

- I can design a sequence of instructions, including directional instructions.
- I can write programs that accomplish specific goals.
- I can work with various forms of input.
- I can work with various forms of output.

Year 3 information technology

- I can use a range of software for similar purposes.
- I can collect information.
- I can design and create content.
- I can present information.
- I can search for information on the web in different ways.
- I can manipulate and improve digital images.

Year 3 digital literacy

- I use technology respectfully and responsibly.
- I know different ways I can get help if I am concerned.
- I understand what computer networks do and how they provide multiple services.
- I can discern where it is best to use technology and where it adds little or no value.

Cyber bullying	**Password**	**Digital footprint**	**Search engine**
Username	**Action**	**Algorithm**	**Bug**
Code block	**Code design**	**Command**	**Output**

Input	Repeat	Variable	Selection
Copy and paste	Columns	Cells	Rows
Equals tool	Spreadsheet	Delete key	Move cell tool
Top row keys	Bottom row keys	Home row keys	Space bar
Email	Communication	CC	Compose
Save to draft	Attachment	Data	Database
Simulation	Graph	Bar chart	Animation
Audio	Slide	Slideshow	Text box
Transition	Text formatting	Font	

A Year 4 Computer User at Dawpool

Year 4 algorithms and programming

- I can experiment with variables to control models.
- I can give an on-screen robot specific instructions that takes them from A to B.
- I can make an accurate prediction and explain why I believe something will happen (linked to programming).
- I can de-bug a program.

Year 4 information technology

- I can select and use software to accomplish given goals.
- I can collect and present data.
- I can produce and upload a pod cast.

Year 4 digital literacy

- I recognise acceptable and unacceptable behaviour using technology.

action	alert	algorithm	code

design	**control**	**command**	**debug**
flowchart	**input**	**simulation**	**variable**
repeat	**computer**	**virus**	**digital**
email	**malware**	**phishing**	**plagiarism**
spam	**formula**	**spreadsheet**	**tool**
animation	**video**	**sound**	**internet**
browser	**search**	**search engine**	**website**
monitor	**keyboard**	**mouse**	**pitch**
rhythm	**dynamics**	**melody**	**tempo**

A Year 3 & 4 *Safe* Computer User at Dawpool

Year 3 & 4 knowledge and understanding

- I understand the need for rules to keep me safe when exchanging learning and ideas online.
- I recognise that information on the internet may not be accurate or reliable and may be used for bias, manipulation or persuasion.
- I understand that the internet contains fact, fiction and opinion and begin to distinguish between them.
- I use strategies to verify information, e.g. cross-checking.
- I understand the need for caution when using an internet search for images and what to do if I find an unsuitable image.
- I understand that copyright exists on most digital images, video and recorded music.
- I understand the need to keep personal information and passwords private.
- I understand that if I make personal information available online it may be seen and used by others.
- I know how to respond if asked for personal information or feel unsafe about content of a message.
- I recognise that cyber bullying is unacceptable and will be sanctioned in line with the school's policy.
- I know how to report an incident of cyber bullying.
- I know the difference between online communication tools used in school and those used at home.

- I understand the need to develop an alias for some public online use.
- I understand that the outcome of internet searches at home may be different than at school.

Year 3 & 4 skills

- I follow the school's safer internet rules.
- I recognise the difference between the work of others which has been copied (plagiarism) and re-structuring and re-presenting materials in ways which are unique and new.
- I can identify when emails should not be opened and when an attachment may not be safe.
- I can explain and demonstrate how to use email safely.

A Year 5 Computer User at Dawpool

Year 5 algorithms and programming

- I can combine sequences of instructions and procedures to turn devices on and off.
- I can use technology to control an external device.
- I can design algorithms that use repetition & 2-way selection.

Year 5 information technology

- I can analyse information.
- I can evaluate information.
- I understand how search results are selected and ranked.
- I can edit a film.

Year 5 digital literacy

- I understand that you have to make choices when using technology and that not everything is true and/or safe.

Action	Alert	Algorithm	Bug
Command	Control	Input / Output	Repeat

Sequence	Variable	Online safety	Password
Reputable	Encryption	Identity theft	Plagiarism
Average	Columns	Cells	Equals tool
Formula	Formula Wizard	Rows	Spread sheet
Data	Animation	Customise	Interactive
Perspective	Playability	CAD	Modelling
Concept	Node	Cursor	Merge cells
Formatting	Text wrapping	Template	Font

A Year 6 Computer User at Dawpool

Year 6 algorithms and programming

- I can design a solution by breaking a problem up.
- I recognise that different solutions can exist for the same problem.
- I can use logical reasoning to detect errors in algorithms.
- I can use selection in programs.
- I can work with variables.
- I can explain how an algorithm works.
- I can explore 'what if' questions by planning different scenarios for controlled devices.

Year 6 information technology

- I can select, use and combine software on a range of digital devices.
- I can use a range of technology for a specific project.

Year 6 digital literacy

- I can discuss the risks of online use of technology.
- I can identify how to minimise risks.

Coding	control	average	**Databases**
action	object	count	audience
code design	selection	random tool	blog -post -page
debug	timer	advance mode	collaborative
function	sequence	cells	icon
output	**Online Safety**	dice	**Text Adventure**
simulation	phishing	formula wizard	concept map
command	password	rows	sprite
event	spoof website	timer	**Networks**
input	PEGI rating	Copy & paste	internet
flowchart	digital footprint	move cells tool	world wide web
repeat	**Spreadsheets**	spin tool	router
algorithm	column	equals tool	wireless
	formula	chart	local /wide area network LAN/WAN

A Year 5 & 6 *Safe* Computer User at Dawpool

Year 5 &6 knowledge and understanding

- I can discuss the positive and negative impact of the use of ICT in my own life, my friends and family.
- I understand the potential risk of providing personal information online.
- I recognise why people may publish content that is not accurate and understand the need to be critical evaluators of content.
- I understand that some websites and/or pop-ups have commercial interests that may affect the way the information is presented.
- I recognise the potential risks of using internet communication tools and understand how to minimise those risks (including scams and phishing).
- I understand that some material on the internet is copyrighted and may not be copied or downloaded.

- I understand that some messages may be malicious and know how to deal with this.
- I understand that online environments have security settings, which can be altered, to protect the user.
- I understand the benefits of developing a 'nickname' for online use.
- I understand that some malicious adults may use various techniques to make contact and elicit personal information.
- I know that it is unsafe to arrange to meet unknown people online.
- I know how to report any suspicions.
- I understand I should not publish other people's pictures or tag them on the internet without permission.
- I know that content put online is extremely difficult to remove.
- I know what to do if I discover something malicious or inappropriate.

Year 5 & 6 skills

- I follow the school's safer internet rules.
- I can make safe choices about the use of technology.
- I can use technology in ways which minimises risk. e.g. responsible use of online discussions, etc.
- I can create strong passwords and manage them so that they remain strong.
- I can independently, and with regard for e-safety, select and use appropriate communication tools to solve problems by collaborating and communicating with others within and beyond school.
- I can competently use the internet as a search tool.
- I can reference information sources.
- I can use appropriate strategies for finding, critically evaluating, validating and verifying information. e.g. using different keywords, skim reading to check relevance of information, cross checking with different websites or other non ICT resources.
- I can use knowledge of the meaning of different domain names and common website extensions (e.g. .co.uk; .com; .ac; .sch; .org; .gov; .net) to support validation of information.

Archived (2021-22): Education Recovery in Computing

In response to the COVID-19 pandemic, we have identified 3 overarching improvement priorities for education recovery:

- *Reading across the curriculum*
- *Teachers' subject, pedagogical and pedagogical content knowledge*

- *Quality First Teaching*

A focus on these 3 priorities will ensure that all pupils can access the full curriculum which is central to the '**Abundant Life that Jesus offers.**'

In addition to these 3 priorities, we have taken a **subject-specific approach** when prioritising what to teach.

In determining what to prioritise in the **computing curriculum**, we have focused on our **vision for computing** which outlines our aspirations for pupils in this subject. We have also considered the guidance produced by the DfE. The main aim of education recovery at Dawpool is to teach pupils what they need in order to make sense of later work in the curriculum. We have therefore identified the following priorities for the **computing curriculum**.

Pupils will:

- *Use computing devices and applications confidently and competently.*
- *Know how to use devices safely and responsibly.*
- *Develop their understanding of algorithms and sequencing*
- *Have practical experience of coding and programming.*