Computing
at Shirley Junior School

SHIRLEY JUNIOR SCHOOL

KINDNESS.
RESPECT.
INTEGRITY.

VISION

In Computing at Shirley Junior School, pupils are being equipped for life in a world where technology is changing the lives of everyone. We intend for children to leave our school being able to **embrace and utilise new technology** in a socially responsible and safe way in order to flourish. More than that though, we want our children, through their computing lessons, to develop their use of all of our school's learning values, including, but not limited to, aspiration, reflection and curiosity. Children are exposed to a wide range of software that allows them to develop a proficiency in being **autonomous**, independent users of computing technologies. These are embedded into our wider curriculum and used throughout the school to enhance learning in all subject areas as part of our embedded creative curriculum. Children have many opportunities to use **logical reasoning** to **design**, **write** and **debug** programmes; applying their developing skills of **sequencing**, **selection** and **repetition**. Safety online is a topic that is discussed regularly throughout the year so that our pupils have the tools of discernment and the power of knowledge to resolve the inevitable issues they will face in the online world.

Strands

Computer Science

Digital Literacy

Information Technology

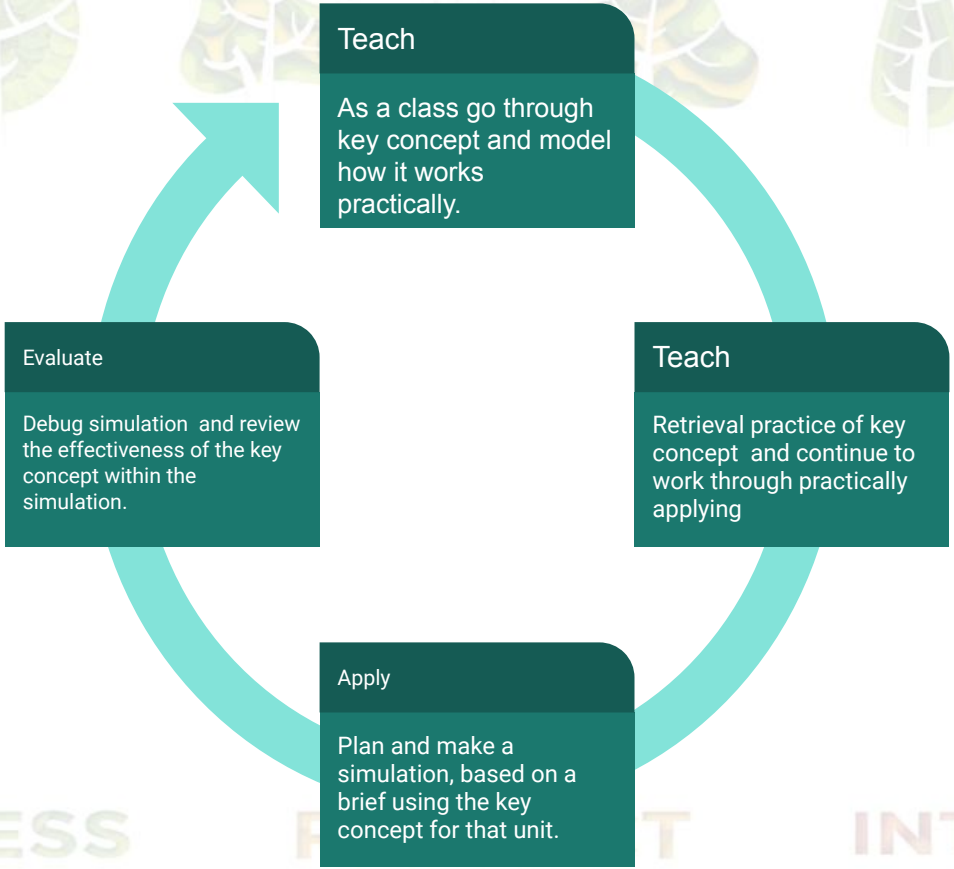
Coding

Web search

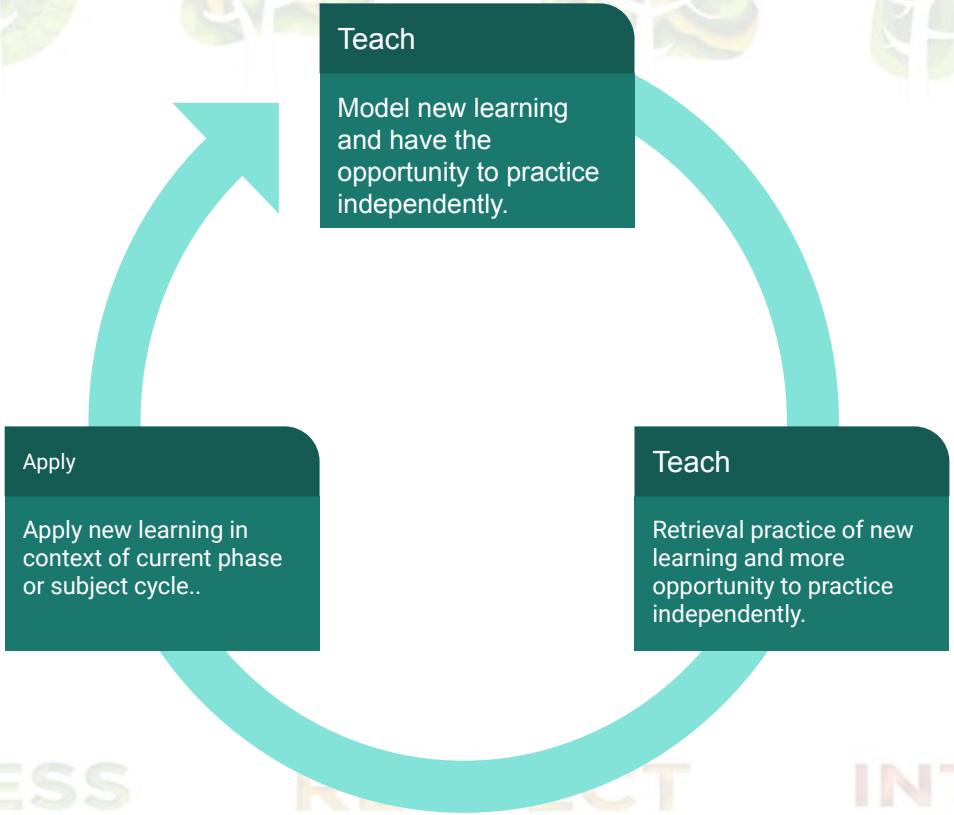
Internet safety

Communication Multimedia

How we are Computer Scientists

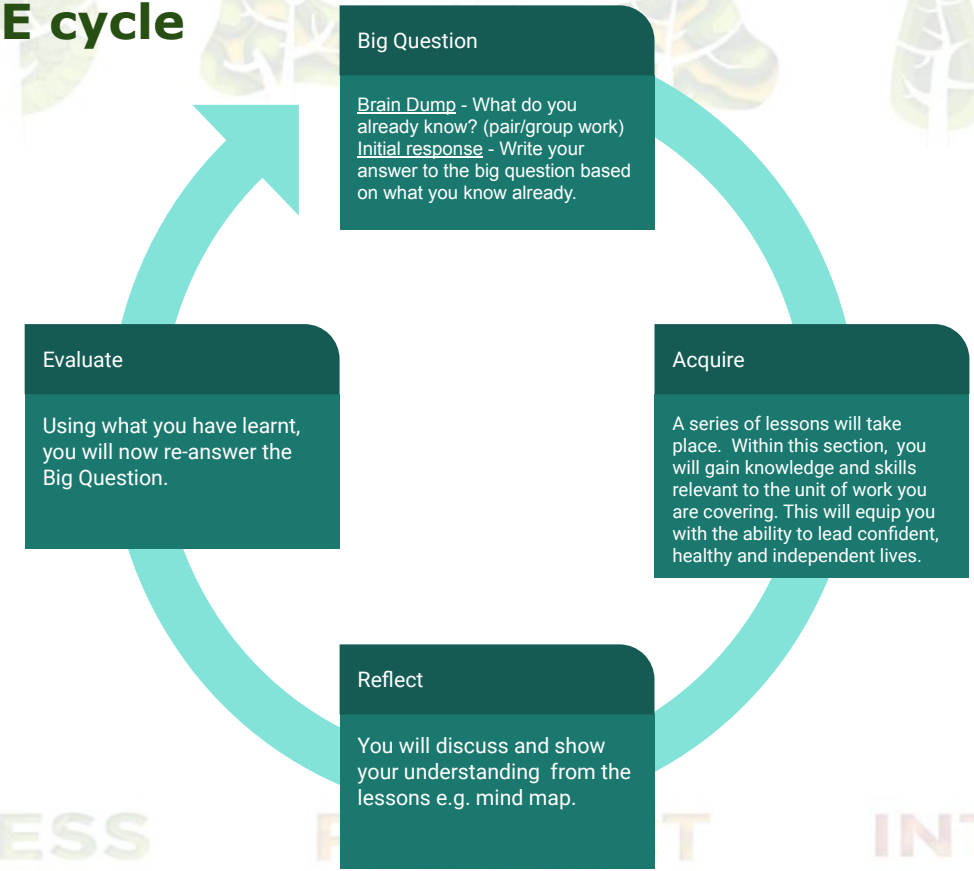


How we learn about Information Technology and digital literacy (web search)



How we learn Digital Literacy (e-safety)

Follows the PSHE cycle



Knowledge progression

Strands	3	4	5	6
Computer Science (Computational thinking and Programming)	I can use sequence to create an animation.	I can use and adjust variables to store information.	I can control objects' properties using numerical inputs.	I can use more complex variables to store information.
	I can use conditional selection to control objects within an animation.	I can create repeating selections using loops.	I can apply random selections to simulations.	I can use code to detect the parameters of other objects in a simulation.
Information Technology (Multimedia)	I can use images I have taken to match real locations on a map.	I can add images I have taken to a map to present to a different audience.	I can add additional data alongside images on the map.	I can add more complex data to the map.
		I can select appropriate images from the internet for a video	I can take my own photos to add to a video.	I can critique and edit a video I have created.
			I can use computer aided design (CAD) to create a design initially drafted on paper	I can use CAD to create 3D representations of designs to be viewed from various angles and focusing on specific intricate details.
Information Technology (Communication)	I can use a given programme to record data I have collected.	I can use a given programme to interpret data I have collected.	I can select appropriate programmes to record and interpret data in various forms including charts and graphs, adding explanation within the programme.	I can select appropriate programmes to record and interpret data, presenting it different programmes.
	I can use digital technologies to communicate ideas in the context of musical composition.			I can use digital technologies to create, edit and communicate creative ideas in the context of musical composition.

Knowledge progression – cont.

Digital Literacy (Using the WWW)	I can find more specific facts for given topics by using fewer, more specific key words.	I can use web search to find a range of information to compare and ensure it agrees.	I can use BOOLEAN searches to get more specific results.	I can use the idea of ranked searches to find appropriate information - not being reliant on the first searches that appear.
Skills vocabulary	Sequence If statement Condition Selection key words facts	Variable Repeat Loop Nested compare reliable	Properties Random Simulation boolean if/and	Parameters Detect Variables ranked commercial

Knowledge progression - Digital Literacy (e-safety)

	3	4	5	6
Self-image and identity and Online reputation	I can explain what identity is and how some might change their identity online. I can explain how to search for information online about others and who to ask if I'm not sure about what information to share	I can explain how someone's online identity might be different to their realworld identity and the reasons for this. I can explain how to find out information about others by searching and how this information can be copied and shared.	I can explain how online identity can be copied, modified or althered and demonstrate how to make responsible choices about identity. I can search for information online and summarise the information found and how this information can be used to make judgements about people.	I can identify and evaluate online content and reflect on my emotional response to this, asking for help if needed. I can explain the ways to build a positive reputation online and how to protect this reputation.
Online relationships	I can explain how knowing someone and trusting someone online will differ and that how I act online can affect people's feelings.	I can explain how to be safe while having fun online and how we should consider others' feelings when sharing content.	I can explain different forms of communicating online and how this can be used collaboratively and in support of others.	I can describe how sharing content can be positive or negative and how it can't be guaranteed that it is kept private.
Online bullying	I can explain how to behave appropriately online and what bullying looks like when it happens online.	I can recognise when someone is upset or angry online, how content posted can affect people's feelings and how bullying can be done through a range of media.	I can describe the difference between real-world bullying and online bullying and how to access help and support if this happens to me.	I can describe how to capture evidence of bullying and report it online in different contexts.
Managing online information	I can explain that not everything on the internet is a fact and not all opinions are fair or true.	I can explain that information on the internet can vary in accuracy and that it can sometimes be intentionally misleading.	I can explain the benefits and limitations of different search technologies and how to evaluate the content they provide, including how they have different agendas.	I can offer examples of information online that are an opinion and what influence, manipulation and persuasion are.

Knowledge progression - Digital Literacy (esafety) cont.

Healthy, well-being and lifestyle (Active and Healthy week)	I can explain why spending too much time using technology can have a negative impact and explain why some activities have an age restriction.	I can explain how using technology can be positive or negative distraction from other things and when limiting time using it might be useful.	I can describe ways technology can have a positive or negative effect on health and wellbeing and explain why some games take payment for additional content.	I can describe different ways that age is regulated and assess and action strategies to reduce the impact of technology on health.
Privacy and security (Autumn 1 - Setting up routines)	I can describe strategies for keeping information private and who I can trust.	I can explain why internet use is never fully private and what is meant by digital age of consent.	I can demonstrate how to create a strong password and how some apps collect and share private information with others.	I csn explain how to store passwords securely and the importance of keeping software up to date.
Copyright and ownership (Digital Literacy)	I can explain why copying someone else's work from the internet without permission isn't fair and can explain what problems this might cause.	I can explain why I need to consider who owns it and whether I have the right to reuse it and I can give some simple examples of content which I must not use without permission from the owner	I can assess and justify when it is acceptable to use the work of others and I can give examples of content that is permitted to be reused and know how this content can be found online.	I can demonstrate the use of search tools to find and access online content which can be reused by others and I can demonstrate how to make references to and acknowledge sources I have used from the internet.

KINDNESS RESPECT INTEGRITY

Overview

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 3	Healthy Me! I can use a given programme to record data I have collected.	Southampton through time I can use images I have taken to match real locations on a map. Digital Literacy (Esafety)	Let it shine I can use sequences to create an animation.	Walk like an Egyptian I can find more specific facts for given topics by using fewer, more specific key words.	FWMD I can use digital technologies to create, edit and communicate creative ideas in the context of musical composition. Digital Literacy (Esafety)	Shirley Cruises I can use conditional selection to control objects within an animation.
Year 4	Better than stone I can use web search to find a range of information to compare and ensure it agrees. Digital Literacy (Esafety)	Ticket to Ride I can use and adjust variables to store information	Roman invasion I can create repeating selections using loops.	Rags to Riches I can use a given programme to interpret data I have collected.	Eruption and disruption I can select appropriate images from the internet for a video Esafety	Wild I can use images I have taken to a map to present to an different audience.
Year 5	Space Roamers I can use computer aided design (CAD) to create a design initially drafted on paper CSI Shirley Digital Literacy (Esafety)	A Kingdom United? I can use BOOLEAN searches to get more specific results. I can control objects' properties using numerical inputs.	There's no planet B I can take my own photos to add to a video. I can select appropriate programmes to record and interpret data in various forms including charts and graphs, adding explanation within the programme.	Boy @ the back Digital Literacy (Esafety) - Identity	Power of water I can add additional data alongside images on the map. I can apply random selections to simulations.	All the fun at the fair Apply CAD Digital Literacy (Esafety)
Year 6	Secret Spitfires Digital Literacy (Esafety) I can use the idea of ranked searches to find appropriate information - not being reliant on the first searches that appear.	A fair Christmas for all I can use CAD to create 3D representations of designs to be viewed from various angles and focusing on specific intricate details. I can select appropriate programmes to record and interpret data, presenting it in different programmes.	Wolves I can critique and edit a video I have created.		The Race for Equality Digital Literacy (Esafety) I can use the idea of ranked searches to find appropriate information - not being reliant on the first searches that appear. (Continued)	It's a wrap I can use more complex variables to store information. I can use code to detect the parameters of other objects in a simulation.

EVERY CHANCE Opportunities
EVERY DAY Understanding
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