

Computing progression of skills



Early Years – Computing

Knowledge

To recognise that a range of technology is used in schools and at home

Know that information can be retrieved from computers

Know that a programmable robot will only follow the instructions given

Know not push the bee-bot, use the buttons

Sid's top tips for e-safety when using any computing device e.g. tablet, laptop or PC

To tell an adult if they get an "Oh oh" feeling and to shut the computer screen.

Know that an algorithm is a set of instructions

Key Skills

How to operate simple equipment e.g. turning on a remote control toy

To interact with age-appropriate computer software

To select and use technology for a particular purpose e.g. taking a photograph, listening to music, using a till in the role play etc

To complete a simple program on a computer

To program and programmable robot to move forwards and backwards

To talk about the technology they use and how they use it

To talk about how they stay safe at home and in school

Key Vocabulary

Computer science—

Algorithm— a step by step set of instructions to solve a problem e.g. a recipe

Debug—to find and remove errors. Bugs are just mistakes.

Code—code makes things happen on computers

Sequence—to do something in the correct order

Forward—Fd

Backwards—Bk

Left—Lt

Right—Rt

Program

Robot

Beebot

Key Vocabulary

E-safety

Hardware— e.g.PC and devices

Software—the programmes and games we use on the hardware.

Computer—PC

Laptop

Tablet

Technology

Camera

Mobile phone

Data—information

Internet—a network of computers linked all over the world

CHIS Skills Progression 2021/22

Subject area: Computing—Computer science, Digital Literacy, IT

Curriculum leader: Marion Taylor

	Year 1	Year 2
<p>Computer Science <i>Understand what algorithms are; how they are implemented as programmes on digital devices; and that programmes execute by following precise and unambiguous objectives.</i></p> <p><i>Create and debug simple programmes</i></p> <p><i>Use logical reasoning to predict the behaviour of simple programmes</i></p> <p><i>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.</i></p>	<p>Pupils should be taught to:</p> <ul style="list-style-type: none">· Follow simple instructions eg playing robots, country dancing (pre-Logo activities)· Breaking down instructions in to smaller components· Control a programmable robot in a linear simulation scenario, using Forward and Backward commands (arrows) and the Go command· Use trial and error to create a sequence of instructions to a move a programmable robot to a specified location· Use arrow keys or click on arrows to explore a scene or backdrop in a simple on-screen Logo program· Use trial and error to move an object to a destination in a scene or backdrop in a simple on-screen Logo program· Know that many everyday devices respond to commands· Use simple adventure games or simulations, being able to problem solve and starting to use logical reasoning	<p>Pupils should be taught to:</p> <ul style="list-style-type: none">· Plan and create a sequence of instructions to a move a programmable robot· Control a programmable robot, with a purpose· plan and create a sequence of logo instructions to move around a scene or backdrop in a simple on-screen Logo program, with a purpose· Plan, write, evaluate, and edit a sequence of instructions to move a programmable robot. Be able to decompose and debug· Start to explore other computer science programs e.g. scratch (block programming)· Use logical reasoning when problem solving and using adventure games· Start to use logical reasoning to predict the behaviour of simple programs

<p><u>Digital literacy</u></p> <p><i>Use technology purposefully to create, organise, store, manipulate and retrieve digital content</i></p> <p><i>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.</i></p>	<p>Pupils should be taught to</p> <ul style="list-style-type: none"> · Find and retrieve information with support · Follow internet safety rules and use pre-selected web pages · Insert text and graphics with support using two hands as appropriate · Utilise a variety of media in their presentations (with support) including art packages, cameras, digital video, sound recorders, images and text · Use a variety of digital devices independently including sound recorders, cameras, · Use simple animation software · Produce simple graphs and pictograms with support · Logon to the school network, print, load programs, save and retrieve work with support · Know that email exists and with support send a short email 	<p>Pupils should be taught to</p> <ul style="list-style-type: none"> · Find and retrieve information for a topic using favourites, bookmarks, hyperlinks and search engines under supervision · Discuss internet safety rules and how it could affect them · Import graphics and text, editing style, size, font etc. to make simple modifications to their work · Utilise a variety of media in their presentations including art packages, cameras, digital video, sound recorders, images and text and with support start to edit and manipulate presentations e.g. sequences, transitions, images, sound · Use music software to explore sounds and create and play their own compositions. With support evaluate and edit compositions · Independently add captions, sound and images to digital media · Produce their own graph, interpret and answer questions and be aware that graph types can be changed · Logon, print, load programs, save and retrieve independently. Describe their work and how they have used IT · Logon and out of an email account and blog. Be able to talk about the importance of password security
--	--	---

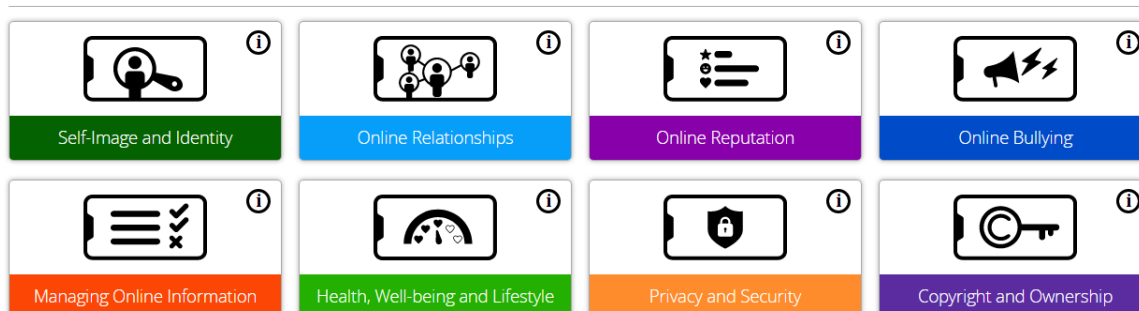
<p>IT <i>Recognise common uses of information technology beyond school</i></p> <p><i>Use technology safely and respectfully. Keeping personal information private: identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.</i></p>	<ul style="list-style-type: none"> · Start to recognise common uses of information technology beyond school · Be aware that digital content can be saved in different places · Know where to go for help and support when they have concerns about content or contact on the internet or other online technologies. 	<ul style="list-style-type: none"> · Recognise and talk about the uses of IT beyond the school, and how this affects their lives and the lives of others · Be able to discuss where digital content can be saved e.g. network, pc, datapen. Becoming aware of cloud storage · Know where to go for help and support when they have concerns about content or contact on the internet or other online technologies. · Logon in and out of email account , blog and personal profiles. Be able to talk about the importance of password security, always acting safely and respectfully
---	--	---

How E-safety is taught in the curriculum

What is Project Evolve?

“Project EVOLVE resources each of the 330 statements from UK Council for Internet Safety's (UKCIS) framework “Education for a Connected World” with perspectives; research; activities; outcomes; supporting resources and professional development materials” (SWGfl project Evolve).

The following eight strands are taught in every year group with the age appropriate planning and resources.



At the beginning of each strand teachers will assess where their pupil's online safety knowledge is currently, using the online knowledge map tool. They will then use this information to plan what they are going to teach. Outcomes can then be evaluated to assess the impact and if necessary addressed.