Primary Computing

Online Safety

St. George's Primary School Progression of Knowledge and Skills

Year 6

I can protect my password and other personal information because I know how to protect my computer or device from harm on the internet. **I can support my friends to protect themselves and make good choices online.** I can explain the consequences of sharing too much online and the consequences of not communicating kindly and respectfully. **I can report any concerns I have regarding online safety and e-security to an adult or on a website/app. I can discuss a range of ways to report concerns or inappropriate behaviour.** I can explain the consequences of spending too much time online. I understand how to stay safe online and communicate this to others.

Year 5

I know that anything I post online can be seen, used and may affect others**. I can explain the importance of communicating kindly and respectfully.** I can discuss the importance of choosing an age-appropriate website or game. **I can talk about the dangers of spending too long online or playing games within and out of my age range**. I know which resources on the internet I can download and use.

Year 4

I can talk about ways I can protect myself and my friends from harm online. **I can use safety features online as well as reporting concerns to an adult.** I know that anything I post online can be seen by others. **I can comment positively and respectfully online.** I can talk about why I need to ask a trusted adult before I download anything online.

Year 3

I can talk about what makes a secure password and why they are important. **I know how to protect my personal information when I am online.** I can make positive comments online. **I can make good choices about how long I spend online.** I understand how to keep safe online including, asking an adult before downloading, files and games, recognising age appropriate websites and games.

Year 2

I can tell you what personal information is. **I can explain why I need to keep my password and personal information private.** I can talk about key online safety rules and where to go if I have a problem online

Year 1

I know what is meant by the term online safety. **I can recognise when I am using technology on the internet.** I can tell an adult when I see something worrying or upsetting online. **I can agree and follow sensible online safety rules.**
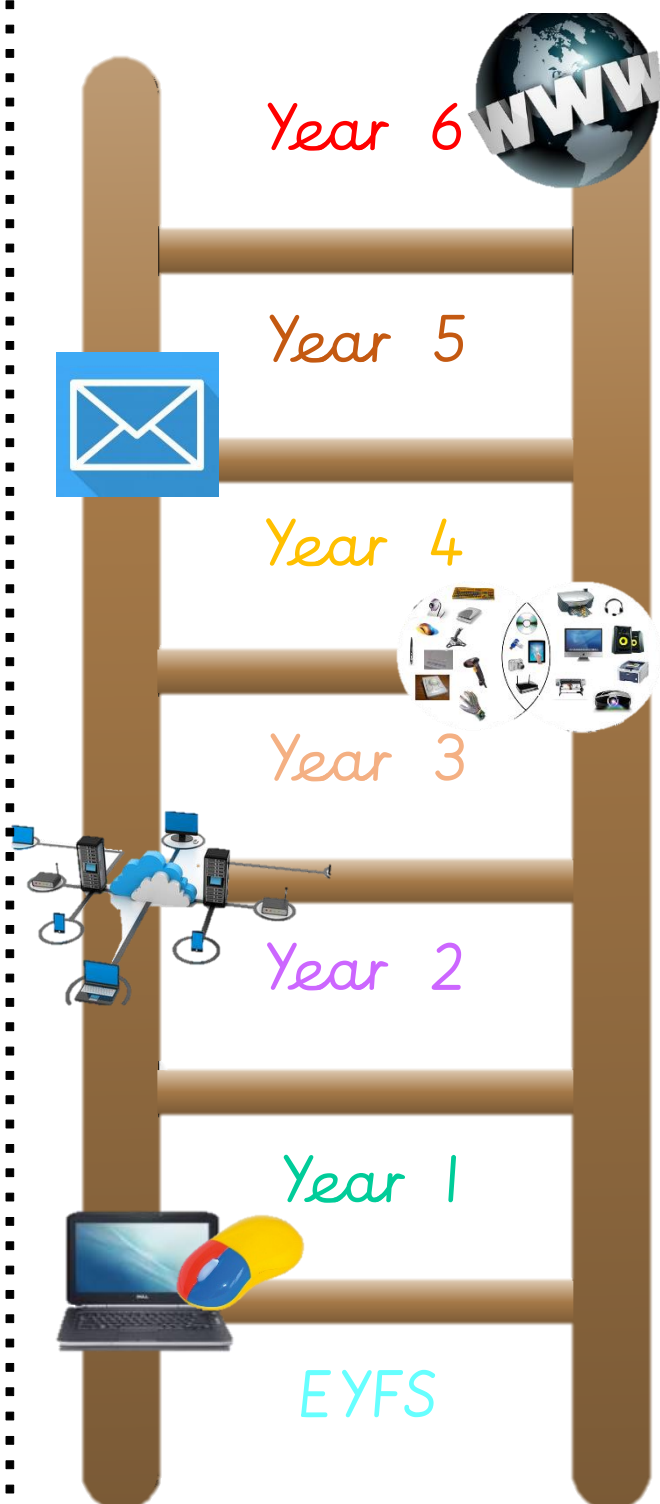
EYFS

I am kind and careful when using devices**. I can tell adult when something worrying happens when using technology.** I can talk about good and bad choices in real life. **I can play appropriate games on the internet**

Primary Computing Networks

St. George's Primary School Progression of Knowledge and Skills

Year 6

I can complete a web search to find specific information. **I can refine my search. I can compare results from different search engines.** I can explain why we need tools to find things online. **I can recognise the role of web crawlers in creating an index.** I can relate a search term to the search engine's index. **I can explain that search results are ordered.** I can explain that a search engine follows rules to rank relevant pages. **I can suggest some of the criteria that a search engine checks to decide on the order of results.** I can describe some of the ways that search results can be influenced. **I can recognise some of the limitations of search engines.** I can explain how search engines make money. **I can explain the different ways in which people communicate and compare them.** I can identify that there are a variety of ways of communicating over the internet. **I can choose methods of communication to suit particular purposes recognising not all are private.**

Year 5

I can explain that systems are built using a number of parts. **I can describe that a computer system features inputs, processes, and outputs.** I can explain that computer systems communicate with other devices. **I can identify tasks that are managed by computer systems.** I can identify the human elements of a computer system. **I can explain the benefits of a given computer system.** I can recognise that data is transferred using agreed methods. **I can explain that networked digital devices have unique addresses.** I can explain that data is transferred over networks in packets. **I can recognise that connected digital devices can allow us to access shared files stored online.** I can send information over the internet in different ways. **I can explain that the internet allows different media to be shared.** I can compare working online with working offline. **I can identify different ways of working together online.** I can recognise that working together on the internet can be public or private. **I can explain how the internet enables effective collaboration**

Year 4

I can describe how networks physically connect to other networks. **I can describe the internet as a network of networks.** I can demonstrate how information is shared across the internet. **I can discuss why a network needs protecting.** I can explain how the internet allows us to view the World Wide Web. **I can recognise that the World Wide Web is the part of the internet that contains websites and web pages.** I can explain the types of media that can be shared on the World Wide Web (WWW). **I can describe where websites are stored when uploaded to the WWW.** I can describe how to access websites on the WWW and how content can be added and accessed on the World Wide Web. **I can create media which can be found on websites and explain that websites and their content are created by people.** I can suggest who owns the content on websites and explain that there are rules to protect content. **I can explain why some information I find online may not be honest, accurate, or legal.**

Year 3

To explain how digital devices function. **I can explain that digital devices accept inputs and outputs and identify (classify) some of these devices.** I can follow a process. **I can model a simple process.** I can design a digital device and recognise how digital devices can change the way we work. **I can explain how I use digital devices for different activities.** I can recognise similarities and suggest differences between using digital devices and non-digital tools. **I can explain how a computer network can be used to share information. I can explain how messages are passed through multiple connections.** I can discuss why we need a network switch. **I can recognise that a computer network is made up of a number of devices.** I can demonstrate how information can be passed between devices. **I can explain the role of a switch, server, and wireless access point in a network.** I can recognise the physical components of a network. **I can identify how devices in a network are connected with one another.** I can identify networked devices around me. I can identify the benefits of computer networks

Year 2

I can identify examples of computers and describe some uses of computers. **I can identify that a computer is a part of information technology.** I can use technology to collect information (including a camera, microscope, and sound recorders**). I can explain the purpose of information technology in the home.** I can talk about uses and compare types of information technology. **I can demonstrate how information technology is used in a shop.** I can recognise that information technology can be connected. **I can explain how information technology helps people.**

Year 1

I can name the parts of a computer. **I can switch on a device and log in and out successfully.** I can use a mouse to click and drag. **I can create a picture**. I can save and open a file. **I can type my name and use the delete key when I make a mistake**.

EYFS

I can talk about digital technology with confidence and independence. **I can give examples of how technology is used in school and at home.** I can talk about how technology is part of everyday life and can be used to communicate with others.

Primary Computing

Coding

St. George's Primary School Progression of Knowledge and Skills

Year 6

Piper Kits: I can use different types of input and output options such as sensors, control kits and software (apps) to solve a problem. **I can deconstruct a problem into smaller steps, recognising similarities to solutions used before.** I can explain and program each of the steps in my algorithm. **I can predict what will happen.** I can create and develop programs by debugging and applying programming skills of repetition (loops), selection (IF statements) and variables to accomplish specific goals. **I can recognise when I need to use a variable to achieve a required output.** I can use variables and operators to stop a program. **I can include different inputs (sensors, LEDs, Buttons) to control a device or on-screen action.**

Year 5

Using the Piper Kits: I can control external hardware from within my programs. **I can follow a set of algorithms to build a computer system.** I can work collaboratively, testing and evaluating mine and others work. **I can control LEDs, sensors, buttons, amplifiers, and speakers from within a program.** I can use logical reasoning to deconstruct programs and evaluate their effectiveness. **I can use logical thinking, imagination, and creativity to extend a program.** In Lego Wedo: I can write increasingly complex programs. **I can evaluate programs and make them more challenging and or elegant and or efficient.** I can test, debug, and edit a program that accomplishes a given goal to solve a problem. **I can decompose a problem into smaller parts to design and algorithm for a specific outcome and use this to write a program.** I can use loops to repeat tasks within a program. **I can create an accurate program to accomplish a given goal using loops and repetition (e.g. creating a game for the younger children on scratch).** I can refine a procedure using repeat commands to improve a program.

Year 4

I can plan and create a program using decomposition. **I can break an open-ended problem up into smaller parts.** I can use an efficient procedure to simplify a program. **I can use logical thinking to identify and solve potential bugs during coding.** I can demonstrate logical choices and prediction when using a computer simulation, model, or game, using the 'repeat' button to control on screen objects. **I can make simple edits to solve a problem. I can detect a problem in an algorithm which could result in unsuccessful programming.** I understand that I need to keep testing my program as I am building it. **I recognise that using algorithms will also help solve problems in other areas of learning such as maths, science, and design technology.**

Year 3

I can put programming commands into a sequence to achieve a specific outcome (Scratch JNR). **I can use repeat commands (Scratch JNR and Music Maker).** I can talk about how a sequence of events in some simple algorithms are 'working'. **I can produce an accurate set of simple instructions to program an on-screen object, using trial and error to debug.** I can describe the algorithm I will need for a simple task. **I can keep testing my program and can recognise when I need to debug it.** I can talk about digital devices beyond school that need precise instructions (traffic lights, speed camera, pelican crossing, alarm clock etc.).

Year 2

I can talk about how some electronic devices work and understand that they need precise instructions (algorithms) to work/ be programmed (controlled). **I can tell you the order I need to do things to make something happen and talk about this as an algorithm.** I can predict the consequences of decisions/choices made. **I can program a BeeBot and ProBot to do a particular task. I can use programming software to make objects move (BeeBot app).** I can use the word debug when I correct mistakes when I program. **I can watch a program execute and spot where it goes wrong so that I can debug it.** I can look at my friend's program and tell you what will happen. I can refine (de-bug), improve and make changes to a set of algorithms.

Year 1

I know what an algorithm is and begin to understand concepts such as program and sequence. **I can verbally create algorithms for my friends to follow to move around.** I can describe what happens when I press a button on a BeeBot. **I can press buttons in the correct order to make my BeeBot do what I want.** I can begin to predict what will happen for a short sequence of instructions.

EYFS

I can create a simple programme. **I can input simple instructions to technological toys.** I can use technology to record my work and ideas.

Primary Computing
Creating Media (Animation)

St. George's Primary School Progression of Knowledge and Skills

Year 6

I can plan and design a film for a given purpose. **I can gather photo, sound and video and insert into a film story board.** I can edit and refine a video evaluating its impact on the audience. **I can present a video to an audience. I can give constructive feedback to my friends about how to improve their work whilst refining my own.**

Year 5

I can add 3D shapes to a project. **I can view 3D shapes from different perspectives.** I can move 3D shapes relative to one another. **I can resize an object in three dimensions.** I can lift/lower 3D objects. **I can recolour a 3D object.** I can rotate objects in three dimensions. **I can duplicate 3D objects**. I can group 3D objects. **I can analyse a 3D model.** I can choose objects to use in a 3D model. **I can combine objects in a design.** I can construct a 3D model based on a design. **I can explain how my 3D model could be improved.** I can modify my 3D model to improve it. **I can present my design to an audience.**

Year 4

I can identify the input and output devices used to record and play sound. **I can use a computer to record audio.** I can explain that the person who records the sound can say who is allowed to use it. **I can re-record my voice to improve my recording.** I can inspect the soundwave view to know where to trim my recording. **I can discuss what sounds can be added to a podcast.** I can explain how sounds can be combined to make a podcast more engaging. **I can save my project so the different parts remain editable.** I can plan appropriate content for a podcast. **I can explain how sounds can be combined to make a podcast more engaging.** I can review the quality of my recordings. **I can suggest improvements to an audio recording.** I can give constructive feedback to my friends about how to improve their work whilst refining my own.

Year 3

I can make choices on which program is best of a given task**. I can use software to create and combine content (text, images, graphs, animation) for meaningful purposes (iMovie, movie maker, stop motion).** I can gather images and video clips. **I can combine content using a piece of software, (e.g. green screening, adding filters, text).** I can edit software that I am using with attention to detail.

Year 2

I can make straight forward edits with using software on a tablet device, beginning to show awareness of the audience (trailers on iMovie).

Year 1

I can use technology to create and present my ideas**. I can take pictures using a camera.** I can record a video clip**. I can record a sound**. I can be creative with different technology tools, assembling digital content for a clear purpose.

EYFS

I can use age-appropriate software to create images, record sounds and videos. **I can select and use technology for particular purposes.**

Primary Computing

Creating Media

St. George's Primary School Progression of Knowledge and Skills

Year 6

I can explore a website. **I can discuss the different types of media used on websites.** I know that websites are written in HTML. **I can recognise the common features of a web page.** I can suggest media to include on my page. **I can draw a web page layout that suits my purpose.** I can say why I should use copyright-free images. **I can find copyright-free images.** I can describe what is meant by the term 'fair use'. **I can add content to my own web page.** I can preview what my web page looks like. **I can evaluate what my web page looks like on different devices and suggest/make edits.** I can explain what a navigation path is. **I can describe why navigation paths are useful.** I can make multiple web pages and link them using hyperlinks. **I can explain the implication of linking to content owned by others.** I can create hyperlinks to link to other people's work. **I can evaluate the user experience of a website.**

Year 5

In Spreadsheet Software: I can identify the elements of a spreadsheet (cells, column, rows). **I know how to manipulate rows and columns.** I know how to format cells. **I can use some simple formulas (to + - / * including auto sum).** I know how to copy formulas. **I can sort data based on a column for a given purpose.** I can highlight data to create a graph. **I can edit and insert appropriate axis labels.**
In Presentation software: I can insert a sound file as an object on a slide. **I add a video to a slide.** I can apply transitions to slides and objects. **I can change the order of animations and control timings.** I can add a hyperlink to my slide. **I can review and improve my own work and support others to improve their work.**

Year 4

I can add slides and change their layout. **I can add text and use my word processing skills to format that text.** I can add pictures and clipart onto a slide. **I can place a slide in and out of presentation mode and reorder slides if necessary.** I can add pictures and clipart onto a slide. **I understand that only main information is needed in a presentation as you talk alongside the content.** I understand that my presentation needs to be read from the back of the room. **I can present information to an audience using presentation software confidently to assist.** I can give constructive feedback to my friends about how to improve their work whilst refining my own.

Year 3

I know how to align text and add bullet points for organisational effect. **I can cut and paste within a document.** I can insert a picture from file/clipart. **I can format a picture in a document so that it can be positioned accurately.** I can insert a table to organise and present my information. **I can copy and paste from the internet/other software (considering laws of copyright).** I can format a picture in a document so that it can be positioned accurately.

Year 2

I can confidently turn on, log in and out and shut down a device. **I can navigate a device to open software, as well as navigate my way around specific content to find information.** I can find, open, edit and save files I am working on with an understanding of undo and redo. **I can use a keyboard on my device to add, delete and space text for others to read.** I can save and open files on a device I use. **I can confidently type lower- and upper-case letters.** I can use the shift key to access symbols. **I understand what a red line and blue line means when typing and how to check my grammar and spelling.** I can use bold, italics and underline to emphasise words and phrases in my typing. **I can make decisions about the font style, colour and size beginning to show awareness of an audience.** I can copy and paste an image from a safe search engine.

Year 1

I can use a program to create a simple document (using line and shapes and making careful choices in Paintz.app). **I can save and open a file.** I can type my name and use the delete key when I make a mistake.

EYFS

I can select appropriate software to create an image, record a sound or video. **I can take photographs of my work to record my progress.** I can create a digital image and edit it to improve it.