



Jump Aboard Jobs Junction



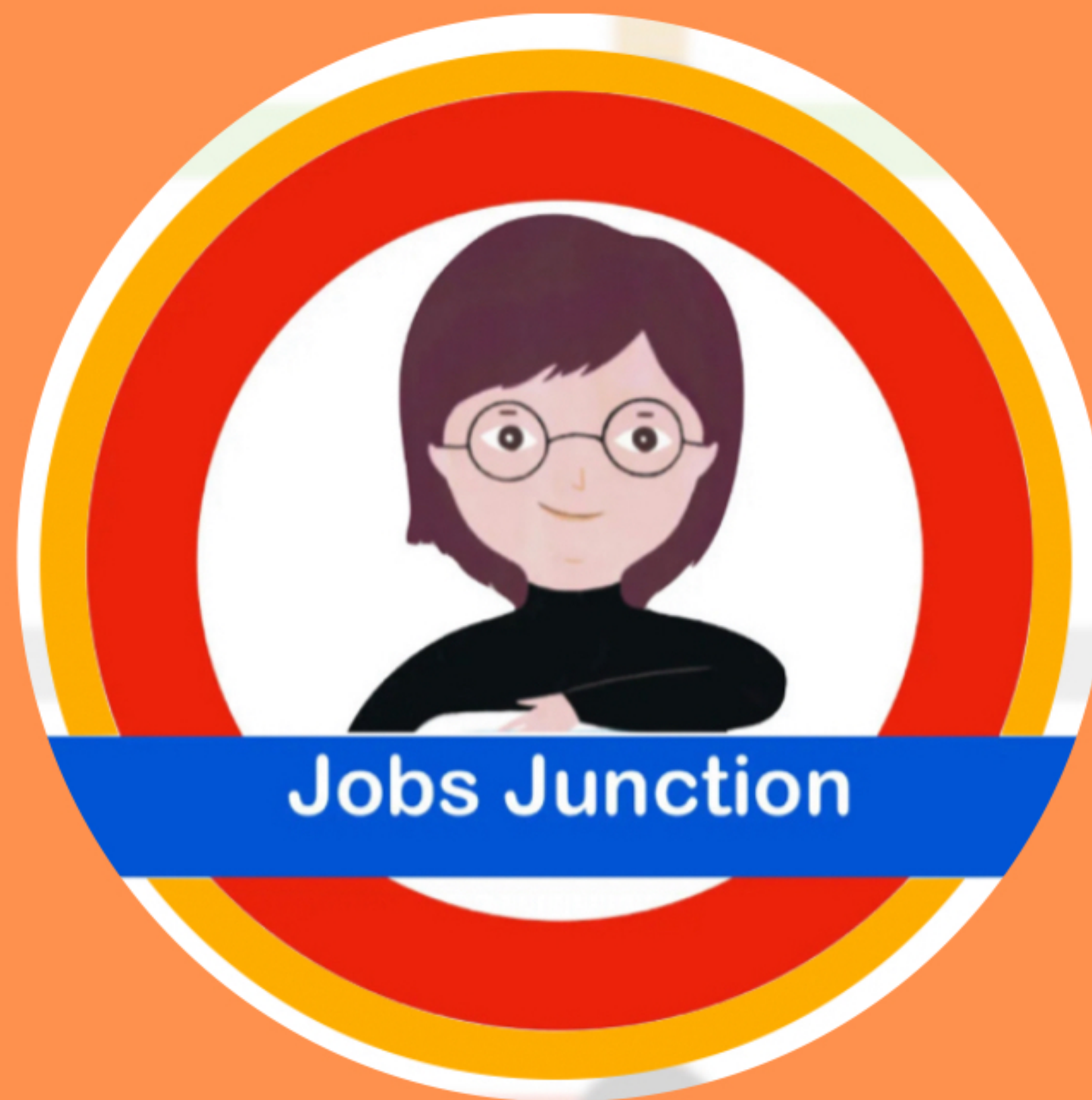
for a Journey of Creativity & Innovation, Developing The
Power To Understand & Change The World!





Jobs Junction

Our Digital Citizens Learning Journey Overview





EYFS
Year 1
Year 2
Year 3

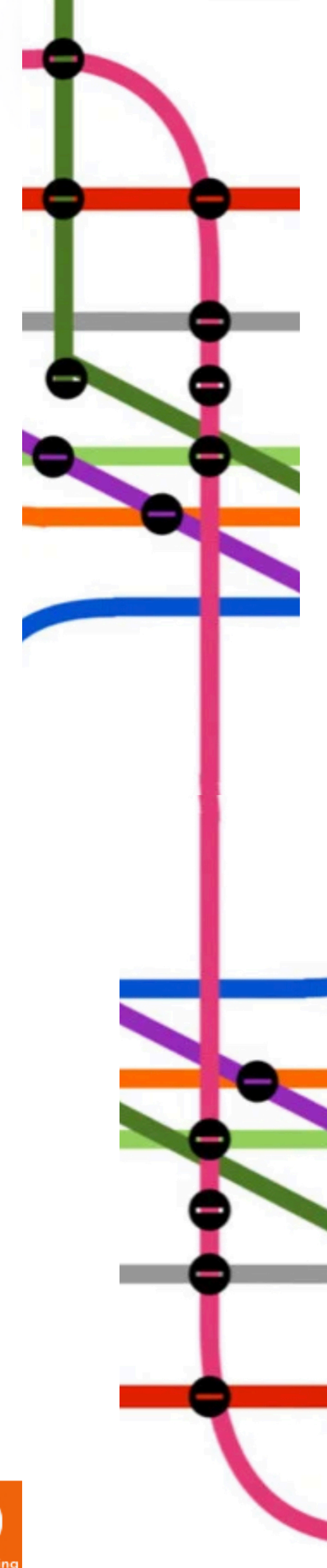
In EYFS there are opportunities for children to use a range of technology to solve problems and produce creative outcomes. We recognise our youngest children's understanding of technology will play a vital role in their early development and their success with computing in the future.

Technology Terrace	Learners will become familiar with the different components of a computer, & also start to consider how to use technology responsibly (Online safety - Privacy & Security)	Information Technology Digital Literacy
Media Manor	Digital Artists will explore a range of creative tools, empowering artists to create their own digital paintings, whilst being inspired by a range of other artists. (Online safety - Self Image & Identity and Online Reputation)	Digital Literacy
Coding Corner	Programmers will learn to program using commands like loops and events. Developing meaningful collaboration, problem-solving techniques and persistence (Online safety - Online Relationships & Online Bullying)	Computer Science
Data District	Statisticians will demonstrate their ability to sort objects into different groups, based on the properties they choose and answer questions about data (Online safety - Managing Online Information)	Digital Literacy
Media Manor	Digital designers will understand the various aspects of using a computer to create and change text. (Online Safety - Health, Well-being and Lifestyle & Copyright and Ownership)	Digital Literacy
Technology Terrace	Learners will focus on IT in the home where they will explore how it benefits society in places such as shops, libraries, and hospitals. (Online Safety - Privacy and Security)	Information Technology Digital Literacy
Media Manor	Digital photographers will recognise that different devices can be used to capture photographs and will gain experience capturing, editing, and improving photos. They will use this knowledge to recognise that images they see may not be real (Online Safety - Self-Image and Identity & Online Reputation)	Digital Literacy
Coding Corner	Programmers will discover more sophisticated coding through basic programming, collaboration, investigation and critical thinking (Online Safety - Online Relationships & Online Bullying)	Computer Science
Data District	Statisticians will begin to understand what data means and how this can be collected in the form of a tally chart. Learners will present data in the form of pictograms and block diagrams and use this data to answer questions. (Online Safety - Managing Online Information)	Digital Literacy
Media Manor	Digital musicians will make patterns and use those patterns to create digital music with digital tools. (Online Safety - Health, Well-being and Lifestyle and Copyright & Ownership)	Digital Literacy
Technology Terrace	Learners will be challenged to develop their understanding of digital devices, with a focus on inputs, processes, and outputs. Computer scientists will then be introduced to computer networks that include network infrastructure devices like routers and switches (Online Safety - Privacy and Security)	Information Technology Digital Literacy
Media Manor	Digital animators will use a range of techniques to create a stop-frame animation using iPads. They will apply skills to create a story-based animation, adding other types of media such as text and music. (Online Safety - Self-Image and Identity & Online Reputation)	Digital Literacy
Coding Corner	Programmers will create programs with sequencing, loops and events. They will investigate problem-solving techniques and create interactive games that they can share. (Online Relationships & Online Bullying)	Computer Science
Data District	Statisticians develop an understanding of branching databases and create one using attributes to sort groups of objects. Statisticians will create physical and on-screen branching databases with an identification tool. (Online Safety - Managing Online Information)	Digital Literacy
Media Manor	Desktop publishers will use software and consider careful choices of font size, colour and type to edit and improve pre-made documents. Learners will be introduced to the terms 'templates', 'orientation', and 'placeholders' and use them to support them in making their own template for a magazine front cover. (Online Safety - Health, Well-being and Lifestyle and Copyright & Ownership)	Digital Literacy

Year 4
Year 5
Year 6

Technology Terrace	Computer technicians apply knowledge of networks, to appreciate the internet as a system of networks which need to be kept secure. Learners will explore the World Wide Web and evaluate the content. (Online Safety - Privacy and Security & Managing Online Information)	Information Technology Digital Literacy
Media Manor	A study of input and output devices required to work with sound digitally. Sound engineers will discuss ownership of digital audio and record audio themselves. They will produce a podcast to share with others. (Online Safety - Self Image and Identity)	Digital Literacy
Coding Corner	Programmers will review loops and events and will develop their understanding of algorithms, 'nested loops', 'while loops', 'conditionals', and more. (Online Relationships & Online Bullying & Online Reputation)	Computer Science
Data District	A study of sensors to monitor the environment. Statisticians will collect data as well as access data captured over long periods of time. Learners will use a computer and data loggers to collect, review and analyse data. (Online Safety - Health Well- and Lifestyle)	Digital Literacy
Media Manor	Digital imaging editors will develop their understanding of how digital images can be changed and edited, and how they can be resaved and reused (Online Safety - Copyright & Ownership)	Digital Literacy
Technology Terrace	Computer networkers develop an understanding of computer systems and how information is transferred between systems and devices, children will take part in a collaborative online project (Online Safety - Copyright and Ownership & Online Reputation)	Information Technology Digital Literacy
Media Manor	Video Editors will learn how to create short videos in groups and develop the skills of capturing, editing and manipulating video (Online Safety - Self Image and Identity)	Digital Literacy
Coding Corner	Computer programmers are introduced to Sprites where they learn to make fun, interactive projects. They learn more complex coding including nested loops, functions and conditionals (Online safety - Online Relationships & Online Bullying)	Computer Science
Data District	A study into how flat-file databases can be used to organise data. Learners will create graphs and charts from their data to help solve problems. (Online Safety - Privacy and Security & Managing Online information)	Digital Literacy
Media Manor	A study of vector graphics. Digital artists will use different drawing tools to help them create images by layering, grouping and duplicating objects. (Online Safety - Health, Well-being and Lifestyle)	Digital Literacy
Technology Terrace	Networkers explore how data is transferred over the internet with a focus on the structure of data packets. They will learn how the internet facilitates online communication and collaboration. (Online Safety - Privacy & Security)	Information Technology Digital Literacy
Media Manor	Website Designers are introduced to the creation of websites for a chosen purpose. Learners will design and evaluate their own website. (Online safety - Online Reputation & Self-Image and Identity)	Digital Literacy
Coding Corner	Programmers will learn to create a variety of Sprite Lab apps that offer choices for the user. They will learn more advanced concepts including variables and 'for' loops. (Online Safety - Online Relationships & Online Bullying)	Computer Science
Data District	An introduction to spreadsheets. Statisticians will create their own data set and use formulas to calculate data. (Online Safety - Managing Online Information & Copyright and Ownership)	Digital Literacy
Media Manor	Computer Aided Designers will develop their knowledge and understanding of using a computer to produce 3D models. (Online Safety - Health, Well-being and Lifestyle)	Digital Literacy

Information Technology Digital Literacy
Digital Literacy
Computer Science
Digital Literacy
Digital Literacy
Information Technology Digital Literacy
Digital Literacy
Computer Science
Digital Literacy
Digital Literacy
Information Technology Digital Literacy
Digital Literacy
Computer Science
Digital Literacy
Digital Literacy
Information Technology Digital Literacy
Digital Literacy
Computer Science
Digital Literacy
Digital Literacy



Jobs Junction

Our Digital Citizens Learning Journey from Novice to Expert!

Digital Citizens at Park Hall Academy will experience a learning journey which enables them to develop substantive, practical and disciplinary knowledge. Leaders have identified essential experiences and opportunities to develop knowledge and skills that learners will repeatedly encounter throughout their journey along Jobs Junction. This will enable all learners to develop as expert programmers, coders, digital leaders, sound designers and more.



Big Ideas

- Think, Communicate as a Digital Leader
- Respectful Digital Citizenship
- Safe Digital Citizenship
- Computational Thinking
- Creativity

Concepts

- Information Technology
- Digital Literacy
- Computer Science
- Logical Thinking
- Abstraction
- Data
- Algorithms
- Programming

A Ticket For A Journey Of Creativity & Innovation, Developing The Power To Understand & Change The World.
From novice to expert.



Substantive Knowledge

Disciplinary Knowledge

Develop knowledge and understanding of the three main pillars of progression: *computer science, information technology and digital literacy.*

Computer Science

Develop knowledge of computers and computation including data, system architecture, algorithms & programming. Understand that it is the core of computing and underpins all other learning within the computing curriculum. Build secure foundations of knowledge to understand & interpret.

Computational Thinking

Engage in problem solving including logical thinking, algorithm thinking, pattern recognition and more. Understand that it is an 'approach to solving problems in a way that can be implemented with a computer.'

Learners will demonstrate their knowledge and skills by communicating, thinking and being a responsible digital citizen. Scaffolds, worked examples and breaking down complex problems will all ensure that learners are successful and reduces cognitive load.

Secure conceptual knowledge and understanding through learning key facts, rules and principles as well as the relationship between them- 'Knowing that'

Programming

Apply their knowledge of computer science through writing code to solve problems. Develop strong mental models to comprehend programs based on their *conceptual knowledge.*

Information Technology

Develop knowledge of digital artefacts (digital objects made by humans) & computing contexts (how computing has played a significant part in history & transformed our daily lives). Produce their own digital artefacts e.g. spreadsheets, images.

Digital Literacy

Actively engage in e-Safety, demonstrating their knowledge of how to use digital devices safely and effectively. Carefully planned e-Safety lessons enable learners to build on prior knowledge.

Secure procedural knowledge of the methods and processes that can be performed e.g. Conducting a search effectively - 'knowing how'.



Jobs Junction



Curriculum Aims:

Our ambitious curriculum is underpinned by the National Curriculum aims.





Computing -Overview and Key Stage 1 & 2 subject content

The national curriculum for computing aims to ensure that all pupils:

- can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation
- can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems
- can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems
- are responsible, competent, confident and creative users of information and communication technology.

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.

Jobs Junction

Big Ideas

- Think, Communicate Be a Digital Leader
- Respectful Digital Citizenship
- Safe Digital Citizenship
- Computational Thinking
- Creativity

Concepts

- Information Technology
- Digital Literacy
- Computer Science
- Logical Thinking
- Abstraction
- Data
- Algorithms
- Programming

Purpose of study: A high-quality computing education equips pupils to use computational thinking and creativity to understand and change the world. Computing has deep links with mathematics, science, and design and technology, and provides insights into both natural and artificial systems. The core of computing is computer science, in which pupils are taught the principles of information and computation, how digital systems work, and how to put this knowledge to use through programming. Building on this knowledge and understanding, pupils are equipped to use information technology to create programs, systems and a range of content. Computing also ensures that pupils become digitally literate – able to use, and express themselves and develop their ideas through, information and communication technology – at a level suitable for the future workplace and as active participants in a digital world.



Think,
Communicate
Be a Digital Leader

Key stage 2



Pupils should be taught to develop their techniques, including their

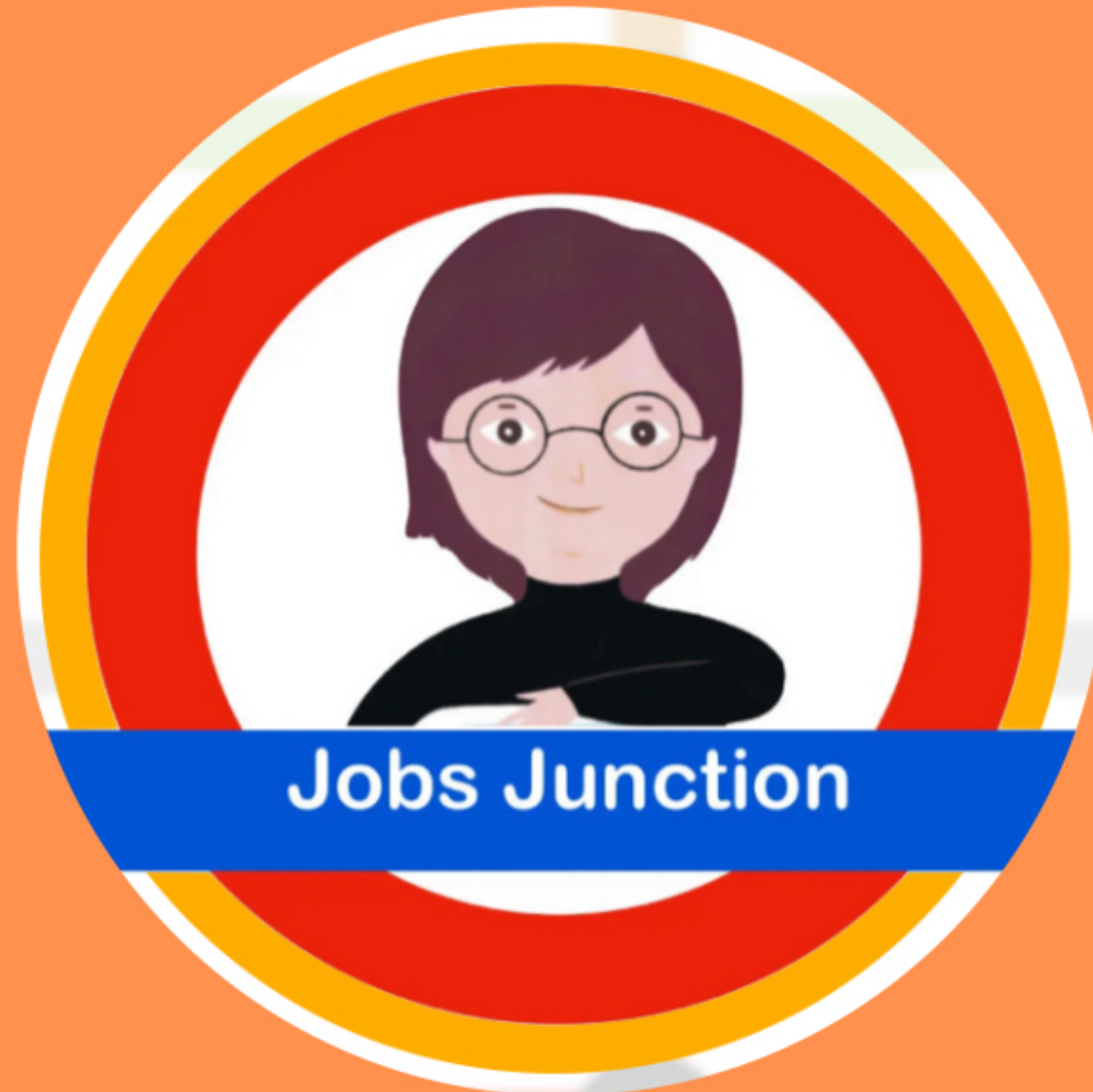
- design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts
- use sequence, selection, and repetition in programs; work with variables and various forms of input and output
- use logical 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.



Jobs Junction Learning Journey Overviews.



Leaders have identified the key knowledge and skills that our designers will acquire and develop in each unit of learning. This ensures a challenging and progressive curriculum meets the needs of all of our designers. Statements begin with know, to identify the key knowledge digital citizens must know. To identify the key skills that must be acquired, statements begin, Digital citizens/ technicians/ programmers etc.





Year 1- Computer Systems & Networks (Technology Around Us)



Information Technology - Recognise common uses of information technology beyond schools

Digital Literacy - Use technology purposefully to create, organise, store, manipulate and retrieve digital content

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.

Online Safety (Privacy & Security) - Explain how passwords are used to protect information, accounts and devices. Recognise more detailed examples of information that is personal to someone. Explain why it is important to always ask a trusted adult before sharing any personal information online, belonging to themselves or others.

Key Vocabulary
Technology, computer, mouse, trackpad, keyboard, screen, typing

Step 1

What is technology?

What is a password?

- Digital Leaders know what the term 'technology' means.
- Digital Leaders will classify what is and what is not technology in their school and classroom using post it notes & label.
- Digital Leaders know how technology helps us in different ways and use showbie to match statements.

Step 3

What is the purpose of a mouse?

What makes a good/bad password?

- Digital Leaders know the purpose of a mouse and the different types that can be used
- Digital Leaders will use their fingers and the 'Sketches School' app to tap and drag to create pictures

Step 5

How can I use a keyboard to edit text?

Who can help me?

- Digital Leaders will be able to open work saved from a previous lesson
- Digital Leaders will use the space bar and backspace button to edit and delete text

Step 2

What are the main parts of a computer?

When might a password be really important?

- Digital Leaders know the main parts of a desktop and laptop computer.
- Digital Leaders will practice turning on/off their i
- Digital Leaders will use interactive coding games on code.org to practice tapping and dragging skills

Step 4

What is the purpose of a keyboard?

What is personal information?

- Digital Leaders know what a keyboard is
- Digital Leaders will use 'Sketches School' to type their name on their device
- Digital Leaders will Learn to save and upload their work to 'Showbie'

Step 6

How do I use technology responsibly?

- Apple Ambassadors will share our pupil acceptable use policy
- Digital Leaders know rules to keep us safe and healthy when we are using technology in and beyond home
- Digital Leaders will give examples of some of these rules
- Digital Leaders know how we benefit from these rules

Big Ideas

- Think, communicate, be a digital leader
- Safe Digital Citizenship
- Creativity
- Respectful Digital Citizenship
- Computational Thinking



Year 2- Computer Systems & Networks (Information Technology Around Us)



Online Safety

Information Technology - Recognise common uses of information technology beyond school

Digital Literacy - Use technology purposefully to create, organise, store, manipulate and retrieve digital content.

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.

Online Safety (Privacy & Security) - Explain how passwords are used to protect information, accounts and devices. Explain and give examples of what is meant by 'private' and 'keeping things private'. Describe and explain some rules for keeping personal information private. Explain how some people may have devices in their homes connected to the internet and give examples.

Key Vocabulary
Information Technology ,
Computer , barcode, scanner/scan

Step 1

What is information technology?

What is a password and where do we use them?

- Digital Leaders know different types of computers
- Digital Leaders will use the Popplet app to describe some uses of computers
- Digital Leaders know that a computer is a part of Information Technology



Step 3

How do I use information technology beyond our school ?

What is personal information and how can it be shared online?

- Digital Leaders know examples of IT in the wider world
- Digital Leaders will sort IT using Powerpoint based on where it is found
- Digital Leaders know the uses of IT in the wider world



Step 2

How do I use information technology in our school ?

What makes a strong/poor password?

- Digital Leaders know examples of IT
- Digital Leaders will complete an IT hunt in school
- Digital Leaders will sort IT by what it's used for
- Digital Leaders know that some IT can be used in more than one way



Step 4

What are the benefits of using information technology in the wider world?

How can we keep things private online?

- Digital Leaders know the common types of technology
- Digital Leaders know how IT devices work together in the form of a shop till
- Digital Leaders will engage in role play using a barcode scanner, till and receipt machine
- Digital Leaders know why we use IT and the benefits



Step 5

Can I explain how to use information technology safely?

How can we use information technology safely?

- Digital Leaders know the different uses of information technology
- Apple Ambassadors will share acceptable use policy
- Digital Leaders will talk about rules for using IT
- Digital Leaders know why rules help keep us safe



Step 6

How can we use information technology in different ways?

What are the features of a connected device?

- Digital Leaders will Identify choices that they make when using IT
- Digital Leaders will complete the Digital 5 a Day www.childrenscommissioner.gov.uk/our-work/digital/5-a-day
- Digital Leaders know the need to use IT in different ways



Year 3 - Computer Systems & Networks (Connecting Computers)



Online Safety

Computer Science - use sequence, selection, and repetition in programs; work with variables and various forms of input and output.

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

Information Technology - 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.

Online Safety (Privacy & Security) - Describe simple strategies for creating and keeping passwords private. Give reasons why someone should only share information with people they choose to and can trust. Explain that if they are not sure or feel pressured they should tell a trusted adult. Describe how connected devices can collect and share anyone's information with others.

Social Media/Gaming Focus - Minecraft

Key Vocabulary

Digital device, input, process, output, program, digital, non-digital, connection, network, network switch, server, wireless access point

Step 1



How does a digital device work?

What makes a strong password?

- Digital Leaders know that digital devices accept inputs
- Digital Leaders know that digital devices produce outputs
- Digital Leaders will follow a process and then create their own input, process and output



Step 3



How do digital devices help us?

Which information for which profile?

- Digital Leaders know how digital devices are used for a range of activities
- Digital Leaders will recognise similarities and differences between using digital devices and non-digital tools
- Digital Leaders will use paper and pens to create a drawing and compare this to a digital drawing they complete using Sketches School App



Step 2



What parts make up a digital device?

When is it ok to share?

- Digital Leaders will classify input and output devices through a sorting Venn diagram activity
- Digital Leaders know how to describe a simple process
- Digital Leaders will design their own digital device that has inputs, processes and outputs



Step 4



How am I connected?

What is the key to using digital assistants?

- Digital Leaders know different connections
- Digital Leaders know how messages are passed through multiple connections
- Digital Leaders know why we need a network switch



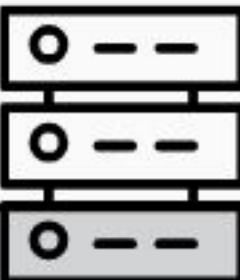
Step 5



How are computers connected?

What are the risks of using a digital assistant?

- Digital Leaders will engage in role-play to recognise that a computer network is made up of a number of devices
- Digital Leaders know how information can be passed between devices
- Digital Leaders know the role of a switch, server and wireless access point in a network



Step 6



What does our school network look like?

How can we stay safe when using minecraft?

- Digital Leaders will engage in a video tour of the school to locate networked and wireless devices
- Digital Leaders know how devices in a network are connected together
- Digital Leaders know the benefits of computer networks



Year 4 - Computer Systems & Networks (The Internet)



Online Safety

Computer Science - 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

Digital Literacy - Use technology safely, respectfully, and responsibly; recognise acceptable/unacceptable behaviour/identify a range of ways to report concerns about content and contact

Use search technologies effectively, appreciate how search results are selected and ranked, and be discerning in evaluating digital content.

Information Technology - 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.

Online Safety (Privacy & Security) - Describe strategies for keeping personal information private, depending on context. Explain that internet use is never fully private and is monitored. Describe how some online services may seek consent to store information. Understand the digital age of consent and the impact this has on online services asking for consent.

(Managing online information) - analyse online information to make a judgement about accuracy. Explain what is meant by fake news. Describe ways of identifying when online content has been commercially sponsored or boosted. Describe how fake news may affect someone's emotions and behaviours.

Key Vocabulary

Internet, network security, network router, network switch, server, wireless access point (WAP), website, web page, web address, routing, web browser, world wide web, content, links, files, use, download, sharing, ownership, permission, information, accurate, honest, adverts

Step 1



How do networks physically connect to other networks?

Are you a privacy pro?

- Digital Leaders will use role-play to describe the internet as a network of networks
- Digital Leaders will demonstrate, through role-play, how information is shared across the internet
- Digital Leaders know why a network needs protecting



Step 3



What can be shared on the World Wide Web?

How do we keep personal information private online?

- Digital Leaders know the types of media that can be shared via the World Wide Web (WWW)
- Digital Leaders know where websites are stored when uploaded to the WWW
- Digital Leaders will be able to access websites on the WWW



Step 5



Who owns the web?

What sort of personal data do online services collect?

- Digital Leaders know that websites and their content are created by people
- Digital Leaders know who owns the content on websites
- Digital Leaders know that there are rules to protect content

Step 2



What is the internet made up of?

Why do we share personal information online?

- Digital Leaders know how to describe networked devices and how they connect
- Digital Leaders know how to explain that the internet is used to provide many services
- Digital Leaders will explore websites and web pages
- Digital Leaders know that the World Wide Web contains both websites and web pages



Step 4



What is a website?

Should people be able to watch what you're doing all of the time?

- Digital Leaders know what media can be found on websites
- Digital Leaders will use 'Chrome Music Lab' to add content to the WWW
- Digital Leaders will use ncc.io/paintbox to explain that internet services can be used to create online content

Step 6



Can I believe what I read?

- Digital Leaders know that not everything on the WWW is true
- Digital Leaders know why some information they find online may not be honest, accurate or legal
- Digital Leaders know why they need to think carefully before they share or reshare content



Year 5 - Computer Systems & Networks (Systems & Searching)



Online Safety

Computer Science - 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

Digital Literacy - Explain how search engine rankings are returned and can explain how they can be influenced.

Online Safety (Privacy & Security) - Explain how many free apps or services may read and share private information with others. Explain what app permissions are and give some examples

(Copyright & Ownership) - Assess and justify when it is acceptable to use work of others. Give examples of content that is permitted to be reused and know how this content can be found online.

(Online Reputation) - Learners are aware that a person's online activity, history or profile will affect the type of information returned to them in a search or on a social media feed, and how this may be intended to influence their beliefs, actions and choices.

Social Media/Gaming Focus - TikTok, Snapchat

Step 1



How do digital systems work?

Why do apps collect information?

- Digital Leaders know that systems are built using a number of parts
- Digital Learners will describe input, process and output by designing their own digital teddy bear
- Digital Leaders know that computer systems communicate with other devices and will explore Amazon Smart Lockers



Step 3



How do I effectively use a search engine?

When is it acceptable to use the work of others?

- Digital Leaders will make use of a web search to find specific information
- Digital Leaders will refine a web search
- Digital Leaders will compare results from different search engines



Step 5



How are search results ranked?

How do I stay safe when using snapchat?

- Digital Leaders will order a list by rank
- Digital Leaders will design their own web page and explain how search engines follow rules to rank results
- Digital Leaders know examples of criteria used by search engines to rank results



Step 2



How do computer systems help us?

What do apps do with our personal information?

- Digital Leaders will identify tasks that are managed by computer systems (pedestrian crossings & Argos Collection Point)
- Digital Leaders know the human elements of a computer system
- Digital Leaders know the benefits of a given computer system



Step 4



Why are search engines necessary?

How do I stay safe when using TikTok?

- Digital Leaders will compare searching online and using an encyclopaedia and then discuss why we need tools to find things online
- Digital Leaders know the role of web crawlers in creating an index
- Digital Leaders will relate a search term to the search engine's index



Step 6



How are searches influenced?

- Digital Leaders know some of the ways that search results can be influenced
- Digital Leaders know some of the limitations of search engines
- Digital Leaders know how search engines make money



Key Vocabulary

System, digital, process, input, output, connection, search, search engine, refine, index, web crawler, bot, ordering, ranking, links, algorithm, search engine optimisation (SEO), content creator, selection

Computer Science - 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

Digital Literacy - Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact

Information Technology - 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

Online Safety (Privacy & Security) - Describe effective ways people can manage passwords. Explain what to do if a password is shared, lost or stolen. Describe how and why people should keep their software and apps up to date. Describe ways in which some online content targets people to gain money or information illegally.

Social Media / Gaming Focus - Snapchat, TikTok







Key Vocabulary

Communication, protocol, data, address, internet protocol address (IP), domain name server (DNS), header, packet, data payload, reuse, remix, collaboration, internet, public, private, one-way, two-way, one-to-one, one-to-many



Year 6 - Computer Systems & Networks (Communication & Collaboration)








Step 1      

What is necessary for effective communication?

Would you use the same password for every app/game?

- Digital Leaders know that data is transferred using agreed methods
- Digital Leaders know that internet devices have addresses
- Digital Leaders know how computers use addresses to access website and will use nslookup.io to find IP addresses for websites










Step 3    

How can we work together when we are not in the same location?

Can you always trust the contents of a message?

- Digital leaders know how to access shared files st online
- Digital Leaders will send information over the internet in different ways (Using Showbie and Google Jamboard)
- Digital Leaders know that the internet allows different media to be shared


 

Step 5     

How do we communicate using technology?






How do I stay safe when using snapchat?

- Digital Leaders know the different ways in which people communicate
- Digital Leaders know that there are a variety of ways to communicate over the internet
- Digital Leaders will use the 'Popplet' app to create a mind map of methods of communication to suit particular purposes



Big Ideas


- Think, communicate, be a digital leader
- Safe Digital Citizenship
- Creativity
- Respectful Digital Citizenship
- Computational Thinking






Step 2     

What is a data packet?

What are the risks if software is not kept up-to-date?

- Digital Leaders know the main parts of a data packet
- Digital Leaders know that data is transferred over networks in packet
- Digital Leaders know that all data transferred over the internet is in packets








Step 4     

How does the internet enable effective collaboration?

How do I stay safe when using TikTok?

- Digital Leaders know different ways of working together online
- Digital Leaders know that working together on the internet can be public or private
- Digital Leaders will use 'Scratch' to remix someones work and explain how the internet enables effective collaboration

Step 6     

How do we communicate responsibly?

- Digital Leaders will compare different methods of communicating on the internet
- Digital Leaders know when they should and should not share information online
- Digital Leaders know that communication on the internet may not be private



Year 1- Creating Media (Digital Painting)



Digital Literacy - Use technology purposefully to create, organise, store, manipulate and retrieve digital content

Online Safety (Self Image & Identity) - Recognise that there may be people online who could make someone feel sad, embarrassed or upset. Give examples of when and how to speak to an adult and how they can help. (Online Reputation) - Recognise that information can stay online and could be copied. Describe what information they should not put online without asking a trusted adult first.

Step 1

How can we paint using computers?

Who can help if something ever worries or upsets you online?

- Digital Leaders will use the 'Sketches School' app to make marks on a screen and explain which tools they used
- Digital Leaders will draw lines on a screen and explain which tools they used
- Digital Leaders will use 'Sketches School' to create a picture of a Superhero

Step 3

Can I make careful choices when painting a digital picture ?

What do we mean by personal information ?

- Digital Leaders know who Henri Matisse is and can describe his work
- Digital Leaders will choose appropriate shapes
- Digital Leaders will make appropriate colour choices
- Digital Leaders will use Sketches School app to create a digital picture in the style of Henri Matisse

Step 5

Can I independently create my own digital image?

How can information be shared online?

- Digital Leaders will use digital tools to make dots of colour
- Digital Leaders will change colour and brush sizes
- Digital Leaders will use dots and colour to create a picture on Sketches School in the style of Georges Seurat

Big Ideas

- Think, communicate, be a digital leader
- Safe Digital Citizenship
- Respectful Digital Citizenship
- Computational Thinking
- Creativity

Step 2

How can I create a digital art with shapes and lines?

How long does information stay online for ?

- Digital Leaders will make marks with shapes and lines effectively
- Digital Leaders will use the Sketches School app to recreate the work of Piet Mondrian

Step 4

What tool should I use to create digital art?

What information shouldn't I share online?

- Digital Leaders know the different paint tools that can be used and what jobs they do
- Digital Leaders will choose appropriate paint tools and colours to recreate the work of Wassily Kandinsky
- Digital Leaders will know which tools were helpful and why

Step 6

Can I compare painting a picture on paper and on a computer?

What do we mean by a trusted adult?

- Digital Leaders know that pictures can be made in lots of different ways
- Digital Leaders will create a piece of pointillism artwork using paper and acrylic paint
- Digital Leaders know the difference between painting on a computer and on paper
- Digital Leaders will say whether they prefer painting using a computer or using paper

Key Vocabulary

Paint, program, tool, paintbrush, erase, fill, undo, Piet Mondrian, primary colours, shape tools, line tools, undo tool, Henri Matisse, shape tool, fill tool, Wassily Kandinsky, feelings, colour, brush style, Georges Seurat, pointillism, brush size, pictures, painting, computers, like, prefer, dislike

Year 2 - Creating Media (Digital Photography)



Digital Literacy - Use technology purposefully to create, organise, store, manipulate and retrieve digital content.

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.

Information Technology - Recognise common uses of information technology beyond school

Online Safety (Self-image & Identity) - Explain how other people may look and act different online and offline. Give examples of issues online that might make someone feel sad, worried, uncomfortable or frightened; give examples of how they might get help (Online Reputation) - explain how information put online about someone can last for a long time. Describe how anyone's online information could be seen by others.

Key Vocabulary

Device, camera, photograph, capture, image, digital, landscape, portrait, format, framing, lighting, focus, filter

Step 1



How can we use digital devices to take photographs?

How can you change your appearance online?

- Digital Leaders know what devices can be used to take photographs
- Digital Leaders know how to take a photograph
- Digital Leaders will use their iPads and the camera tool to take a variety of photographs
- Digital Leaders know what they did to capture a digital photograph



Step 3



Can I explain what makes a good photograph?

How can you ask for help? What would you say?

- Digital Leaders know what is wrong with certain photographs
- Digital Leaders know how to take a good photograph
- Digital Leaders will take a variety of photographs using a paper frame
- Digital Leaders know how to improve a photograph and will retake it

Step 5



Can I use tools to change an image?

Can people share information about me without my knowledge?

- Digital Leaders know that images can be changed
- Digital Leaders will use pixlr.com to change an image using coloured tints
- Digital Leaders will explain their choices and explore other adjustment tools within pixlr.com



Step 2



Can I make choices when taking a photograph?

How do we feel when we play online?

- Digital Leaders will recap the process of taking a good photograph
- Digital Leaders will use the camera tool on iPads to take photos in both landscape and portrait format
- Digital Leaders know why a photo looks better in portrait or landscape format

Step 4



How can photographs be improved?

How long do you think information stays online for?

- Digital Leaders know the effects that light has on a photo
- Digital Leaders will experiment with different light sources
- Digital Leaders will take a photograph of an object in different light sources
- Digital Leaders know why pictures may be unclear

Step 6



Can I recognise that photos can be changed?

What information about me can other people share online?

- Digital Leaders will apply a range of photography skills to capture a photo
- Digital Leaders will study photographs and consider if they have been changed
- Digital Leaders know which photos are real and which have been changed



Information Technology - 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.

Digital Literacy - Use technology safely, respectfully; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

Online Safety - (Self-image & Identity) Explain what is meant by the term 'identity'. Explain how people represent themselves in different ways online. Explain ways in which someone might change their identity depending on what they are doing online and why. (Online Reputation) Explain how to search for information about others online. Give examples of what anyone may or may not be willing to share about themselves online. Explain the need to be careful before sharing anything personal. Explain who someone can ask if they are unsure about putting something online.

Key Vocabulary

Animation, flip-book, setting, character, events, stop-frame animation, onion skinning, frame sequence, image, photograph, consistency, media, import, transition, evaluation



Year 3 - Creating Media (Stop-Frame Animation)



Step 1



Can a picture move?

What is an identity? What makes up our identity?

- Digital Leaders will draw a sequence of pictures
- Digital Leaders will create an effective flipbook-style animation
- Digital Leaders know how an animation/flip book works



Step 3



Can I plan an animation?

What do we use to find information online?

- Digital Leaders will break down a story into settings, characters and events
- Digital Leaders know how to design an animation that is achievable on screen
- Digital Leaders will create a storyboard for a Stone Age animation



Step 5



Can I evaluate the impact of adding other media to an animation?

Who might we ask if we don't know if it is ok to share information online?

- Digital Leaders will add media to their animation
- Digital Leaders know why they added media to that animation
- Digital Leaders will evaluate their final film



Step 2



Can I relate animated movement with a sequence of images?

What is an identity? What makes up our identity?

- Digital Leaders will predict what an animation will look like
- Digital Leaders know why little changes are needed for each frame
- Digital Leaders will create an effective stop-frame animation using the 'iMotion' app



Step 4



Can I create a stop-frame animation?

What kinds of information can we find online?

- Digital Leaders will use onion skinning to help them make small changes between frames
- Digital Leaders will review a sequence of frames to check their work
- Digital Leaders know what makes a high quality animation and will evaluate the quality of their animation



Step 6



Can I review and improve an animation?

Can there be information about us online that we do not know about?

- Digital Leaders know ways to make their animation better
- Digital Leaders will Evaluate a friend's animation
- Digital Leaders will Improve their animation based on feedback



Year 4 - Creating Media (Audio Production)



Information Technology - 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.

Digital Literacy - Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content

Online Safety - (Self-image & Identity) I can explain how my online identity can be different to my offline identity. I can describe positive ways to interact with others online and understand how this will positively impact on how others perceive me. I can explain how others online can pretend to be someone else, including my friends and can suggest reasons why they might do this.

Key Vocabulary

Audio, microphone, speaker, headphones, input device, output device, sound, podcast, edit, trim, align, layer, import, record, edit, play back, selection

Step 1



Can I identify that sound can be recorded?

How do you know that someone is who they say they are online?

- Digital Leaders know the input and output devices used to record and play sound
- Digital Leaders will use an iPad to record audio on iMovie
- Digital Leaders know that the person who records the sound can say who is allowed to use it



Step 3



Can I recognise the different parts of a podcast project?

How do you know that someone is who they say they are online?

- Digital Leaders know how sounds can be combined to make a podcast more engaging
- Digital Leaders will save their project so the different parts remain editable
- Digital Leaders will plan appropriate content for a podcast



Step 5



Can I evaluate the editing choices I made?

What can someone do with the information they find out about you online?

- Digital Leaders know that digital recordings need to be exported to share them
- Digital Leaders know the features of a digital recording they like
- Digital Leaders will suggest improvements to a digital recording



Step 2



Can I re-record my voice to improve my recording?

How do you change your identity online?

- Digital Leaders will re-record their voices to improve their recording
- Digital Leaders will inspect the soundwave view to know where to trim their recording
- Digital Leaders know what sounds can be added to a podcast



Step 4



Can I apply audio editing skills independently?

How do you know someone is your friend online?

- Digital Leaders will record content following their plan
- Digital Leaders will review the quality of their recordings
- Digital Leaders will improve their voice recordings



Step 6



Can I combine audio to enhance my podcast project?

Who might search for you online?

- Digital Leaders will open a project to continue working on it
- Digital Leaders will arrange multiple sounds to create the effect they want
- Digital Leaders know the difference between saving a project and exporting an audio file







Year 5 - Creating Media (Video Production)

Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content
Use technology safely, respectfully, and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact
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

I can explain how identity online can be copied, modified or altered. I can demonstrate how to make responsible choices about having an online identity, depending on context.
I can explain how to stay safe using Roblox.

Key Vocabulary
Video, audio, camera, talking head, panning, close up, microphone, lens, mid range, long shot, moving subject, side by side, high angle, low angle, normal angle


Step 1    

Can I explain what makes a video effective?

How could someone change their online identity to make it different to their identity in 'real life'?

- Digital Leaders know that video is a visual media format
- Digital Leaders will identify features of videos
- Digital Leaders will compare features in different videos

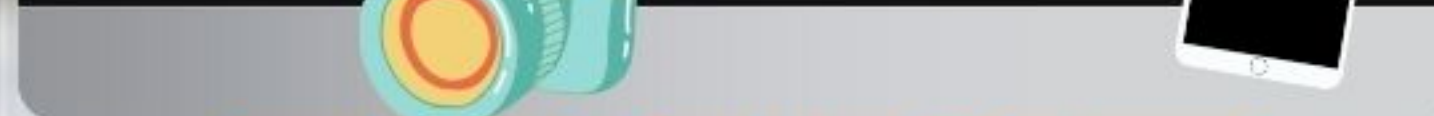


Step 3   

Can I capture video using a range of techniques?




What responsible choices should you make when creating and managing your online identity?

- Digital Leaders know which filming techniques to choose for a given purpose
- Digital Leaders will capture video using a range of filming techniques
- Digital Leaders will review how effective their video is



Big Ideas

- Think, communicate, be a digital leader
- Safe Digital Citizenship
- Respectful Digital Citizenship
- Computational Thinking
- Creativity


Step 4   

Can I create a storyboard?

How can someone's online identity impact on others, both positively and negatively?

- Digital Leaders will outline the scenes of a video
- Digital Leaders will decide which filming techniques they will use
- Digital Leaders will create and save video content

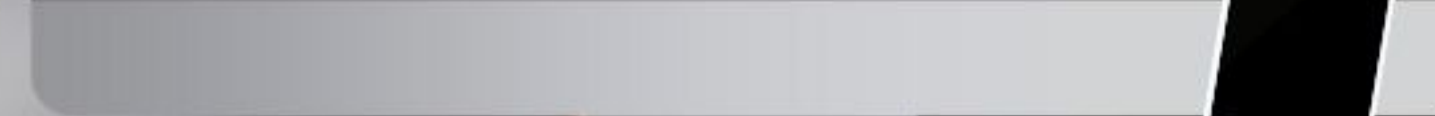





Step 5   

Can I identify that video can be approved through reshooting and editing?

How do I stay safe using Roblox?

- Digital Leaders will store, retrieve and export recordings to their iPads
- Digital Leaders know how to improve the video by reshooting and editing
- Digital Leaders will select the correct tools to make edits to their video



Step 6   

Can I consider the impact of the choices made when making and sharing a video?

- Digital Leaders will make edits to their video and improve the final outcome using iMovie
- Digital Leaders know that their choices when making a video will impact on the quality of the final outcome
- Digital Leaders will evaluate their video and share their opinions



Year 6 - Creating Media (Webpage Creation)



Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content
Use technology safely, respectfully, and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact

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

I can identify and critically evaluate online content relating to gender, race, religion, disability, culture and other groups, and explain why it is important to challenge and reject inappropriate representations online. I can describe issues online that could make anyone feel sad, worried, uncomfortable or frightened. I know and can give examples of how to get help, both on and offline. I can explain the importance of asking until I get the help needed. I can explain the ways in which anyone can develop a positive online reputation. I can explain strategies anyone can use to protect their 'digital personality' and online reputation, including degrees of anonymity.

Step 1



What makes a good webpage?

What is a stereotype?

- Digital Leaders will explore a website
- Digital Leaders know the different types of media used on websites
- Digital Leaders know that websites are written in HTML

Step 3



Can I consider the ownership and use of images?

What are the different ways you can get help and support online?

- Digital Leaders know why they should use copy-right free images
- Digital Leaders will find copyright-free images using www.pixabay.com
- Digital Leaders know what is meant by the term 'fair use'

Step 5



Can I outline the need for a navigation path?

Why is it important to have a positive online reputation?

- Digital Leaders know what a navigation pathway is
- Digital Leaders know why navigation paths are useful
- Digital Leaders will make multiple webpages and link them using hyperlinks

Step 2



Can I plan the features of a web page?

How can stereotypes be helpful/unhelpful?

- Digital Leaders know the common features of a web page
- Digital Leaders will suggest media to include on their web page
- Digital Leaders will draw a web page layout that suits their purpose

Step 4



Can I use Adobe Spark Page to create a webpage?

What do we mean by online reputation?

- Digital Leaders will add content to their own web page using Adobe Spark Page
- Digital Leaders know how to preview what their web page looks like
- Digital Leaders will evaluate what their web page looks like on a different device and suggest/make edits

Step 6



Can I recognise the implications of linking to content owned by other people?

- Digital Leaders know the implications of linking to content owned by others
- Digital Leaders will create hyperlinks to link to other people's work
- Digital Leaders will evaluate the user experience of a website



Key Vocabulary

Video, audio, camera, talking head, panning, close up, microphone, lens, mid range, long shot, moving subject, side by side, high angle, low angle, normal angle



Year 1 - Coding Spring 1



Computer Science - 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.

Online Safety (Online Relationships) - Give examples of when permission should be asked to do something online and explain why this is important. Use the internet with adult support to communicate with people they know. Explain why it is important to be considerate and kind to people online and to respect their choices

Step 1 - Digital Citizenship

Can I use the correct terminology when referring to a touchscreen?

What does it mean to ask permission?

- Digital Leaders know how to tap, drag and drop
- Digital Leaders will complete a basic online puzzle demonstrating the ability to tap, drag and drop to move a shape to its designated area

Step 3 - Sequencing

Can I experiment with standard block-based programming actions such as tap, drag and drop?

Who might be a person you know well?

- Digital Leaders know how to stack code blocks together in a linear sequence
- Digital Leaders know about sequence and concept
- Digital Leaders will develop programming and debugging skills
- Digital Leaders will develop sequential algorithms to move a squirrel character from one side of a maze to the acorn at the other side

Step 5 - Sequencing

Can I recognise bugs in a program and develop a plan to resolve the issues?

Why might it be better to use technology than talk face to face?

- Digital Leaders know how to use their newly acquired programming skills to navigate a more complicated course
- Digital Leaders will sequence commands in a logical order

Step 2 - Sequencing

Can I decode and run a program created by someone else?

What do you have to ask permission to do with technology or the internet?

- Digital Leaders know the difference between planning out a sequence and encoding that sequence into appropriate language.
- Digital Leaders know how to read and write in shorthand code
- Digital Leaders will practice writing precise instructions as they work to translate instruction into the symbols provided

Step 4 - Sequencing

Can I construct a program by reorganising sequential movements?

Why might you need to use the internet or technology to communicate with someone you know well?

- Digital Leaders know how to build a computer program from a set of written instructions
- Digital Leaders will choose appropriate debugging practices when solving problems

Step 6 - Loops

Can I identify repeating code and shorten multiple actions into a single loop?

What does being considerate mean?

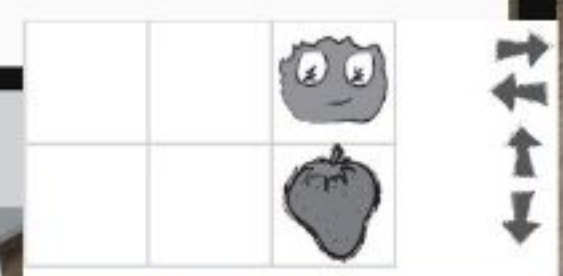
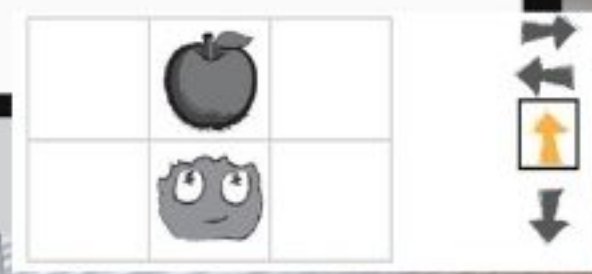
- Digital Leaders know how to use loops to solve bigger, longer puzzles with their code
- Digital Leaders know that loops allow them to simplify their code by grouping commands that need to be repeated
- Digital Leaders will interpret a program with loops as a series of multiple actions
- Digital Leaders will develop critical thinking skills by noticing repetition and determining how many times to repeat commands

Big Ideas

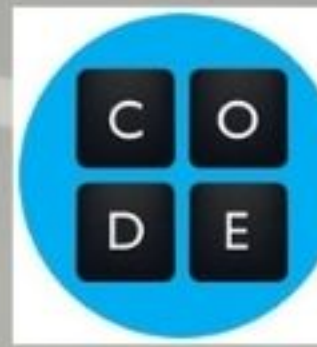
- Think, communicate, be a digital leader
- Safe Digital Citizenship
- Respectful Digital Citizenship
- Computational Thinking
- Creativity

Key Vocabulary

drag, drop, touchscreen, algorithm, debugging, program, tap, double-tap, drop, bug, programming, loop, repeat



Year 2 - Coding Spring 1



Computer Science - 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.

Online Safety (Online Relationships) - Give examples of how someone might use technology to communicate with others they don't also know offline and explain why it might be risky. Explain who they should ask before sharing things about themselves or others online. Describe different ways to ask for, give, or deny their permission online and can identify who can help if they are not sure. Explain why they have a right to say 'no' or 'I will have to ask someone'. Explain who can help them if they feel under pressure to agree to something they are unsure about or don't want to do

Step 1 - Sequencing

Can I translate a list of steps into a series of physical actions?

Who do I communicate with?

- Digital Leaders know how to use physical movement to program their classmates
- Digital Leaders will define a list of steps (algorithm) to get a friend from their starting position to their goal
- Digital Leaders will identify and fix errors in the execution of an algorithm



Step 3 - Sequencing

Can I build a computer program from a set of written instructions?

Why should you ask permission before you do certain things?
What might happen if you don't?

- Digital Leaders know how to reorganise sequential movements
- Digital Leaders will translate movements into a series of commands
- Digital Leaders will continue to develop sequential algorithms



Step 5 - Loops

Can I convert a series of multiple actions into a single loop?

How could you deny permission or say 'no' politely?

- Digital Leaders know how to use loops more easily to communicate instructions by looking at the repeated patterns of a dance
- Digital Leaders know to write more powerful programs they need to rely on structures that break out of a single linear list
- Digital Leaders will identify patterns in physical movement before moving back onto the iPad to look for patterns in their code



Step 2 - Sequencing

Can I experiment with standard block-based programming

Why might someone want to communicate online with someone they already know offline?

- Digital Leaders know how to develop sequential algorithm to move a bird from one side of a maze to the pig at the other side.
- Digital Leaders will use block-based programming actions such as tapping, dragging and dropping
- Digital leaders will develop programming and debugging skills
- Digital Leaders will stack code blocks together in a linear sequence



Step 4 - Sequencing

Can I identify and locate bugs in a program?

Can you identify who could help you in school and at home if something is posted without your consent?

- Digital Leaders know how to translate movements into a series of commands
- Digital Leaders will apply programming concepts taught so far
- Digital Leaders will develop sequential algorithm skills and start using the debugging process



Step 6 - Loops

Can I break down a long sequence of instructions into the smallest repeatable sequence possible?

What kinds of things do you have to ask if you are allowed to do before you do them?

- Digital Leaders know that using loops is an alternative to manually repeating commands
- Digital leaders will implement loops into blockly code
- Digital Leaders will add instructions to existing loops, gather repeated code into loops, and recognise patterns that need to be looped



Key Vocabulary

program, bug, debugging, north, south, east, west, tap, double-tap, drag, drop, algorithm, program, programming, persistence, loop, repeat



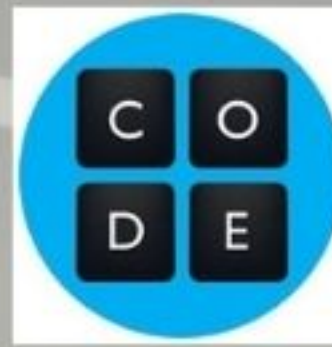
Computer Science - Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. Use sequence, selection, and repetition in programs; work with variables and various forms of input and output. Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs

Online Safety (Online Relationships) - Describe ways people who have similar likes and interests can get together online. Explain what it means to 'know someone' online and why this might be different from knowing someone offline. Explain what is meant by 'trusting someone online', why this is different from 'liking someone online', and why it is important to be careful about who to trust online including what information and content they are trusted with. Explain why someone may change their mind about trusting anyone with something if they feel nervous, uncomfortable or worried. Explain how someone's feelings can be hurt by what is said or written online. Explain the important of giving and gaining permission before sharing things online; how the principles of sharing is the same as sharing offline.

Key Vocabulary
 Algorithm, bug, debugging, program, programming, sequencing, persistence, angle, loop, repeat, command



Year 3 - Coding Spring 1



Step 1 - Sequencing

Can I identify and address bugs or errors in sequenced instructions?
What sort of things do friends do together?

- Digital Leaders know that a bug is an error in a program
- Digital Leaders know the importance of precision when creating instructions
- Digital leaders will instruct a robot to stack cups in different patterns
- Digital leaders will recognise the importance of defining a clearly communicated algorithm

Step 3 - Sequencing

Can I modify an existing program to solve errors?
How do you know when you really know someone?

- Digital Leaders know the importance of debugging in computer science
- Digital Leaders will recognise problems and overcome them while building critical thinking and problem solving skills.
- Digital Leaders will encounter pre-written code that contains mistakes and step through the existing code to identify errors.

Step 5 - Sequencing

Can I create a program to complete an image using sequential steps?
What do others have to do/show to earn your trust?

- Digital Leaders know how to break complex shapes into simple parts
- Digital Leaders will create a program to complete an image using sequential steps
- Digital Leaders will learn more about pixels and angles using new blocks
- Digital Leaders will be able to visualise new goals such as coding the artist to draw a square

Step 2 - Sequencing

Can I translate movements into a series of commands?
Why do friends get together online?

- Digital Leaders know how to develop sequential algorithm to move a bird from one side of a maze to the pig at the other side.
- Digital Leaders will stack code blocks together in a linear sequence, making them move straight, turn left, or turn right.
- Digital Leaders will identify and locate bugs in a program

Step 4 - Sequencing

Can I develop problem solving and critical thinking skills by reviewing debugging practices?
Who do you trust, including online?

- Digital Leaders know that programming is piecing together instructions in a specific order using something that a machine can read
- Digital Leaders know how a computer navigates instructions
- Digital Leaders will order movement commands as sequential steps in a program to get Laurel the Adventurer to pick up treasure as he walks along a path

Step 6 - Loops

Can I write instructions that use loops to repeat patterns?
What sorts of information might you be particularly careful about sharing with someone online?

- Digital Leaders know that using loops is an alternative to manually repeating commands
- Digital leaders will identify repeated patters in code that could be replaced with a loop
- Digital Leaders will write instructions that use loops to repeat patterns
- Digital Leaders will develop critical thinking skills by looking for patterns of repetition in the movements of classmates and determining how to simplify those repeated patterns using loops.

Big Ideas

- Think, communicate, be a digital leader
- Safe Digital Citizenship
- Respectful Digital Citizenship
- Computational Thinking
- Creativity





Year 5 - Coding Spring 1



Computer Science - 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.

Online Safety (Online Relationships) - Give examples of technology-specific forms of communication. Explain that there are some people I communicate with online who may want to do me or my friends harm. Describe some of the ways people may be involved in online communities and describe how they might collaborate constructively with others and make positive contributions. Explain how someone can get help if they are having problems and identify when to tell a trusted adult. Demonstrate how to support others online.

Key Vocabulary
Behaviour, sprite, event, loop, repeat

Step 1 - Sprites

Can I create new sprites and assign them costumes and behaviours?

What can be the benefit of online communication?

- Digital Leaders know that a sprite is a character or object on the screen that can be moved and changed
- Digital Leaders will program a simple animated underwater scene
- Digital Leaders will create new sprites and assign them costumes and behaviours

Step 3 - Sprites

Can I create an interactive computer program that expresses who I am with text and custom images?

What is an emoji - what are they designed to do?

- Digital Leaders know which information is personal and which is private
- Digital Leaders will choose what information about themselves is safe to share online
- Digital Leaders will create an interactive computer program that expresses who they are with text and custom images

Step 5 - Nested Loops

Can I combine simple shapes into complex designs with nested loops?

Can you give some examples of harmful behaviour that others might show towards you?

- Digital Leaders know the benefits of using a loop structure instead of manual repetition
- Digital Leaders will break complex tasks into smaller repeatable sections
- Digital Leaders will combine simple shapes into complex designs with nested loops
- Digital Leaders will count the number of times an action should be repeated and represent it as a loop

Step 2 - Sprites

Can I create an interactive animation using sprites and events?

In what circumstances should we use certain technology-specific communication?

- Digital Leaders know that a sprite is a character or object on the screen that can be moved and changed
- Digital Leaders will create an interactive animation using sprites and events
- Digital Leaders will create new sprites and assign them costumes and locations

Step 4 - Nested Loops

Can I differentiate between commands that need to be repeated in loops and commands that should be used on their own?

What is harm? How could this happen online?

- Digital Leaders know the benefits of using a loop structure instead of manual repetition
- Digital Leaders will differentiate between commands that need to be repeated in loops and commands that should be used on their own

Step 6 - Nested Loops

Can I break apart code into the largest repeatable sequences using both loops and nested loops?

What can you do to try to make sure that you and your friends avoid as much harmful online behaviour as possible?

- Digital Leaders know when a loop, nested loop, or no loop is needed.
- Digital Leaders will break apart code into the largest repeatable sequences using both loops and nested loops
- Digital Leaders will recognise the difference between using a loop and a nested loop

Big Ideas

- Think, communicate, be a digital leader
- Safe Digital Citizenship
- Creativity
- Respectful Digital Citizenship
- Computational Thinking

Year 6 - Coding Spring 1



Computer Science - 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

Online Safety (Online Relationships) - Explain how sharing something online may have an impact either positively or negatively. Describe how to be kind and show respect for others online including the importance of respecting boundaries regarding what is shared about them online and how to support them if others do not. Describe how things shared privately online can have unintended consequences for others. Explain that taking or sharing inappropriate images of someone even if they say it is okay, may have an impact for the sharer and others; and who can help is someone is worried about this.

Key Vocabulary
Sprite, user, algorithm, behaviour, program, event, variable, prompt

Step 1 - Sprites

Can I identify sprites in a running computer program?

What is a stereotype?

- Digital Leaders know the importance of the user in the design process
- Digital Leaders know the role of computers and technology in their lives, focusing on how apps and tools give users choices about how to use them
- Digital Leaders will explore apps similar to those they will create during this half term

Step 3 - Sprites

Can I create an interactive animation using events?

What is a boundary?

- Digital Leaders know how to create programs that respond to timed events and user input
- Digital Leaders will create an interactive animation using events
- Digital Leaders that will develop programs that respond to timed events

Step 5 - Variables

Can I assign a variable a value?

What might other people not want to be shared about them online?

- Digital Leaders know how computers take and store input from a user, then use it later as a program runs
- Digital Leaders will assign a variable a value
- Digital Leaders will call a variable multiple times in a program
- Digital Leaders will declare a variable
- Digital Leaders will determine the relationship between how a variable is defined, stored, and retrieved when we press 'run' on a program
- Digital Leaders will use Mad Libs as a context for understanding inputs

Step 2 - Sprites

Can I create an animation using sprites, and behaviours?

Are consequences always bad? If not, can you give examples of positive consequences?

- Digital Leaders know that a sprite is a character or object on the screen that can be moved and changed
- Digital Leaders will create an animation using sprites, and behaviours
- Digital Leaders will create new sprites and assign them costumes and behaviours

Step 4 - Sprites

Can I create an interactive virtual pet using events, behaviours and custom art?

Are there any things that you share, either about yourself or others, that you might need to reconsider sharing?

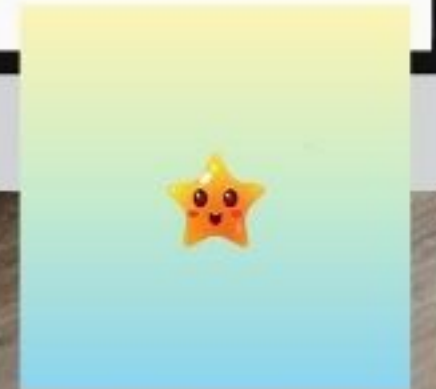
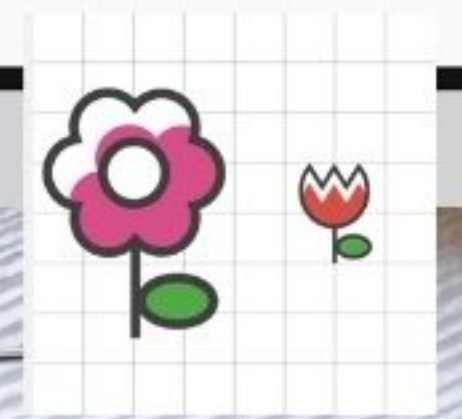
- Digital Leaders know how to program solutions to problems that arise
- Digital Leaders will use Sprite Lab's 'costumes' tool to customise their pet's appearance
- Digital Leaders will use events, behaviours and other concepts they have learned to bring their project to life

Step 6 - Variables

Can I use variables to hold words and phrases?

What do we mean by inappropriate?

- Digital Leaders know how computers take and store input from a user, then use it later as a program runs
- Digital Leaders will use variables in conjunction with prompts
- Digital Leaders will use variables to hold words and phrases





Year 1 - Coding Spring 2



Computer Science - 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.

Online Safety (Online Relationships) - Describe how things shared privately online can have unintended consequences for others. Explain that taking or sharing inappropriate images of someone even if they say it is okay, may have an impact for the sharer and others; and who can help if someone is worried about this. (Online Bullying) - Describe how to behave online in ways that do not upset others and can give examples.

Step 1 - Loops



Can I improve existing code by finding areas of repetition and moving them into looping structures?
Why do you think one person might like a thing when someone else doesn't?
- Digital Leaders know that loops are an important skills in programming because manually repeating commands is inefficient
- Digital Leaders will add instructions to existing loops, gather repeated code into loops, and recognise patterns that need to be repeated
- Digital Leaders will construct a program using structures that repeat areas of code
- Digital Leaders will improve existing code by finding areas of repetition and moving them into looping structures



Step 3 - Loops

Can I create a program that draws complex shapes by repeating simple sequences?
What should we do to stop people copying our information?
- Digital Leaders know how to use loops to create patterns
- Digital Leaders will draw images by looping simple sequences of instructions
- Digital Leaders will count the number of times an action should be repeated and represent it as a loop
- Digital Leaders will create a program that draws complex shapes by repeating simple sequences
- Digital Leaders will decompose a shape into its largest repeatable sequence



Step 5 - Events

Can I create an animated, interactive story using sequence and event-handlers?
What behaviours might upset someone online?
- Digital Leaders know how to apply the coding skills they have learned to create an animated game
- Digital Leaders will use events to make a character move around the screen, make noises and change backgrounds based on user-initiated events
- Digital Leaders will identify actions that correlate to input events
- Digital Leaders will share a creative artefact with other students



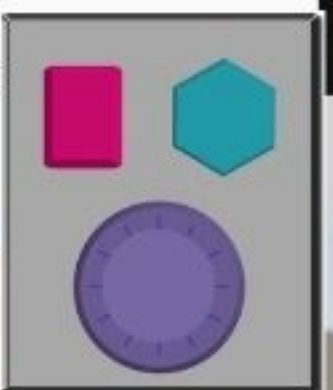
Step 2 - Loops

Can I identify benefits of using a loop structure instead of manual repetition?
Do you think everybody likes the same things online?
- Digital Leaders know that loops are important skills in programming because manually repeating commands is inefficient
- Digital Leaders will break down a long sequence of instructions into the smallest repeatable sequence possible
- Digital Leaders will identify the benefits of using a loop structure instead of manual repetition



Step 4 - Events

Can I recognise actions of the teacher as signal to initiate commands?
Have you ever upset someone online/offline?
- Digital Leaders know what an event is and can distinguish between events and actions
- Digital Leaders will experience the concept of events through a game where they move or shout when your press buttons on a giant remote
- Digital Leaders will practice differentiating pre-defined actions and event-driven ones
- Digital Leaders will recognise actions of the teacher as signals to initiate commands
- Digital Leaders will repeat commands given by an instructor



Step 6 - Projects

Can I apply computer science concepts in an open-ended project?
What does it mean to be positive online?
- Digital Leaders know how to apply what they have learned about sequencing and loops with the Artist
- Digital Leaders will overcome obstacles such as time constraints or bugs



Key Vocabulary

loop, repeat, event

Big Ideas

- Think, communicate, be a digital leader
- Safe Digital Citizenship
- Creativity
- Respectful Digital Citizenship
- Computational Thinking

Year 2 - Coding Spring 2



Computer Science

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.

Online Safety

Online Relationships - Explain why I have a right to say 'no' or 'I will have to ask someone'. Explain who can help me if I feel under pressure to agree to something I am unsure about or don't want to do. Identify who can help me if something happens online without my consent. Explain how it may make others feel if I do not ask their permission or ignore their answers before sharing something about them online. Explain why I should always ask a trusted adult before clicking 'yes', 'agree' or 'accept' online.

Online Bullying - Explain what bullying is, how people may bully others and how bullying can make someone feel. Explain why anyone who experiences bullying is not to blame. Talk about how anyone experiencing bullying can get help

Step 1 - Loops

Can I break down a long sequence of instructions into the smallest repeatable sequence possible?

Do friends sometimes ask you to do things which you might not like to do?

- Digital Leaders know the benefits of using a loop structure instead of manual repetition
- Digital Leaders will use multiple blocks inside of a 'repeat' as they try to collect as much treasure as possible



Step 3 - Impacts Of Computing

Can I apply empathy and creativity to design technology for others?

Who might you talk to or what might you do if you had any problems about things being shared without permission?

- Digital Leaders know what different devices and software people use and how this is accessible for all
- Digital Leaders know why it is important for computer scientists to empathise with people and identify solutions with them in mind
- Digital Leaders will list several different examples of smartphone apps
- Digital Leaders will recommend technology to others based on their unique needs



Step 5 - Events

Can I create an animated, interactive story using sequences and event-handlers?

How would you define bullying?

- Digital Leaders know how to use the coding skills they have learned to create an animated game
- Digital Leaders will identify actions that correlate to input events
- Digital Leaders will share a creative artefact with others



Step 2 - Loops

Can I create a program that draws complex shapes by repeating simple sequences?

Which adults do you know that you trust and could help you if you didn't know what to do?

- Digital Leaders know that loops can create things in programming
- Digital Leaders know whether a program is efficient
- Digital Leaders will count the number of times an action should be repeated and represent it as a loop
- Digital Leaders will decompose a shape into its largest repeatable sequence



Step 4 - Events

Can I recognise actions of the teacher as signals to initiate commands?

Should you always just click 'ok/yes/accept' online?

- Digital Leaders know the difference between events and actions
- Digital Leaders know that events are widely used in programming
- Digital Leaders will practice differentiating pre-defined actions and event-driven ones
- Digital Leaders will repeat commands given by an instructor



Step 6 - Project

Can I apply computer science concepts in an open-ended project?

Who could you go to if you were being bullied?

- Digital Leaders know how to overcome obstacles such as time constraints or bugs
- Digital Leaders will apply what they have learned about sequencing and events in an open-ended project with Play Lab



Key Vocabulary

loop, repeat, event



Year 3 - Coding Spring 2



Computer Science

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

Online Safety

Online Relationships - Explain how someone's feelings can be hurt by what is said or written online. Explain the importance of giving and gaining permission before sharing things online; how the principles of sharing online is the same as sharing offline

Online bullying - Describe appropriate ways to behave towards other people online and why this is important. Give examples of how bullying behaviour could appear online and how someone can get support.

Step 1 - Loops



Can I employ a combination of sequential and looped commands to reach the end of a maze?

Why do people sometimes act differently online to when they are offline?

- Digital Leaders know more about loops and how to implement them in blockly code
- Digital Leaders know the benefits of using a loop structure instead of manual repetition
- Digital Leaders will add instructions to existing loops, gather repeated code into loops, and recognise patterns that need to be looped
- Digital Leaders will break down a long sequence of instructions into the largest repeatable sequence



Step 3 - Events



Can I create a game using event-handlers?

What does it mean to 'be kind' online?

- Digital Leaders know how to use events to make a Flappy Bird game
- Digital Leaders will make their character move across the screen, make noises and react to obstacles based on user-initiated events
- Digital Leaders will match blocks with the appropriate event handler
- Digital Leaders will share a creative artefact with others



Step 5 - Data



Can I decode binary back to letters?

How could you tell if someone was being bullied online?

- Digital Leaders know how information is represented in a way such that a computer can interpret and store it
- Digital Leaders know how computers translate sentences into binary
- Digital Leaders will write codes and share with peers as secret messages
- Digital Leaders will decode binary back to letters
- Digital Leaders will encode letter into binary
- Digital Leaders will relate the idea of storing letters on paper to the idea of storing information in a computer



Step 2 - Events



Can I recognise movements of the teacher as signals to initiate commands?

Should you always check with someone before sharing something about them?

- Digital Leaders know that events are a great way to add flexibility to a pre-written algorithm
- Digital Leaders know the difference between events and actions
- Digital Leaders will practice differentiating pre-defined actions and event-driven ones
- Digital Leaders will repeat commands given by an instructor

Step 4 - Data



Can I create a bar graph and pie chart to represent simple data?

Why are people sometimes unkind online?

- Digital Leaders know that computers were created to help process data
- Digital Leaders will collect, visualise and analyse a simple set of data
- Digital Leaders will collect and record data about quantities of real objects, or characters on a screen
- Digital Leaders will make comparisons between data visualisations made by others and use them to make a prediction



Step 6 - Project



Can I use a planned design as a blueprint for creation?

What can you do if you see someone being mean online?

- Digital Leaders know how to overcome obstacles such as time constraints or bugs
- Digital Leaders will design their own project using a step-by-step process that requires planning but allows for creativity
- Digital Leaders will design, develop and showcase new Play Lab projects



Key Vocabulary

loop, repeat, event





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

Online Safety

Online Bullying - Recognise when someone is hurt, upset or angry online. Describe ways people can be bullied through a range of media. Explain why people need to think carefully about how content they post might affect others, their feelings and how it may affect how others feel about them

Online Reputation - Describe how to find out information about others by searching online. Explain ways that some of the information about anyone online could have been created, copied or shared by others.

Key Vocabulary

loop, repeat, command, condition, conditionals, while loop, until loop

Step 1 - Loops



Can I recognise large repeated patterns as made from smaller repeated patterns?

If someone is upset, hurt or angry, how can they show their feelings online?

- Digital Leaders know that a nested loop is a pattern within a pattern
- Digital Leaders know the benefits of using a loop structure instead of manual repetition
- Digital Leaders will learn how to program a loop inside of another loop
- Digital Leaders will break complex tasks into smaller repeatable sections



Step 3 - Conditionals



Can I solve puzzles using a combination of looped sequences and conditionals?

Why would someone post something hurtful online?

- Digital Leaders know which code to write depending on the specific conditions the program encounters
- Digital Leaders will practice using conditionals in their programs
- Digital Leaders will translate spoken language conditional statements into a program



Step 5 - Conditionals

Can I translate spoken language conditional statements and loops into a program?

What information could these people find about you online?

- Digital Leaders know how 'until' loops work
- Digital Leaders will build programs that have the main character repeat actions 'until' they reach their desired stopping point
- Digital leaders will build programs with the understanding of multiple strategies to implement conditionals



Step 2 - Conditionals

Can I define circumstances when certain parts of a program should run and when they shouldn't?

What are the risks of using immersive technologies such as virtual reality?

- Digital Leaders know how conditionals work
- Digital Leaders will pair the concepts of conditionals and loops to explore the potential for creating fun and innovative programs
- Digital Leaders will determine whether a conditional is met based on criteria



Step 4 - Conditionals

Can I use a 'while' loop to create programs that can solve problems and unknown values?

Who might search for you online?

- Digital Leaders know how condition-based loops work
- Digital Leaders will distinguish between loops that repeat a fixed number of times and loops that repeat as long as a condition is true
- Digital Leaders will use a 'while' loop to create programs that can solve problems with unknown values



Step 6 - Project



Can I use a planned design as a blueprint for creation?

Can other people copy or share the information you put online?

- Digital Leaders know how to overcome obstacles such as time constraints or bugs
- Digital Leaders will design their own project using a step-by-step process that requires planning but allows for creativity
- Digital Leaders will design, develop and showcase new Play Lab projects



Year 5 - Coding Spring 2



Computer Science

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

Online Safety

Online Relationships - Describe some of the ways people may be involved in online communities and describe how they might collaborate constructively with others and make positive contributions. Explain how someone can get help if they are having problems and identify when to tell a trusted adult. Demonstrate how to support others including those who are having difficulties online.

Online Bullying - Recognise online bullying can be different to bullying in the physical world and can describe some of those differences. Describe how what one person perceives as playful joking and teasing might be experienced by others as bullying. Explain how anyone can get help if they are being bullied online and identify when to tell a trusted adult. Identify a range of ways to report concerns and access support both in school and at home about online bullying. Explain how to block abusive users. Describe the helpline services which can help people experiencing bullying, and how to access them.

Key Vocabulary

function, define, prepare, reflect, try, copyright, conditionals

Step 1 - Functions

Can I use functions to simplify complex programs?

What is a community?

- Digital Leaders know how functions can be helpful
- Digital Leaders will recognise reusable patterns and be able to incorporate named blocks to call pre-defined functions
- Digital Leaders use pre-determined functions to complete commonly repeated tasks



Step 3 - Conditionals

Can I recognise when a function could help to simplify a program?

What is a community?

- Digital Leaders know how to use conditionals with functions
- Digital Leaders will use pre-determined functions to complete commonly repeated tasks



Step 5 - Impacts Of Computing

Do I understand my own rights regarding materials I have created?

How could you report worrying issues?

- Digital Leaders know the challenges and benefits of respecting ownership and copyright, particularly in digital environments
- Digital Leaders will interpret ethical sharing of copyrighted material vs sharing that is not ethical



Step 2 - Conditionals

Can I define circumstances when certain parts of a program should run and when they shouldn't?

Who do you communicate with online?

- Digital Leaders know how 'while' loops and 'if/else' statements work
- Digital Leaders will determine whether a conditional is met based on criteria



Step 4 - Impacts Of Computing

Can I describe the impact of mobile apps on the modern world?

What does 'supporting' someone mean? How could you do this online?

- Digital Leaders know the value of empathy
- Digital Leaders know the impacts of computing beyond their own lives
- Digital Leaders will brainstorm and design accessible solutions for hypothetical apps
- Digital Leaders will explain why accessibility is an important part of designing an app for users
- Digital Leaders will improve upon an existing app design by addressing the accessibility needs of users



Step 6 - Project

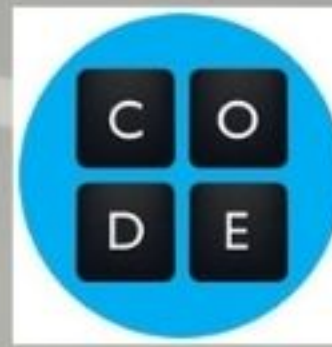
Can I design, develop and showcase a new project?

When or why would you choose to not report some issues?

- Digital Leaders know how to overcome obstacles such as time constraints or bugs
- Digital Leaders will articulate the design process and how it helped shape the finished culminating project
- Digital Leaders will describe how compromise can help keep a project on track and inspire creativity
- Digital Leaders can draft and implement plans to resolve any issues in their code
- Digital Leaders will learn to plan in advance for an ongoing assignment



Year 6 - Coding Spring 2



Computer Science

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

Online Safety

Online Relationships - Describe how things shared privately online can have unintended consequences for others. Explain that taking or sharing inappropriate images of someone even if they say it is okay, may have an impact for the sharer and others; and who can help if someone is worried about this.

Online Bullying - Describe how to capture bullying content as evidence to share with others who can help me. Explain how someone would report online bullying in different contexts.

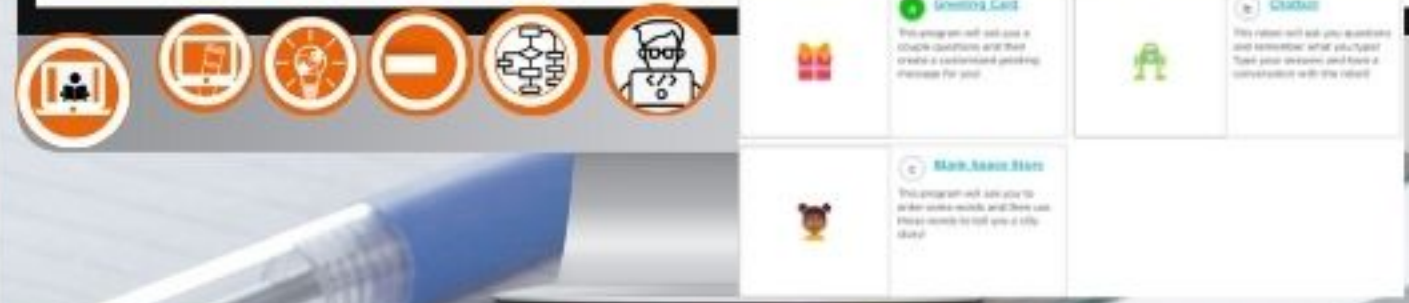
Key Vocabulary

input, prompt, variable, events, models, simulations

Step 1 - Variables

Can I create an interactive computer program that responds to user input?
Are consequences always intended?

- Digital Leaders know how to apply their new skills with variables
- Digital Leaders will explore sample programs, create a plan for their own project, and program it from scratch
- Digital Leaders will use variables in conjunction with prompts
- Digital Leaders will use variables to hold words and phrases



Step 3 - Variables

Can I create a variable that stores information and changes overtime?
What is the difference between blocking and muting someone online?

- Digital Leaders know how to use variables to track a value that changes overtime
- Digital Leaders know that variables store data and can be retrieved later
- Digital Leaders will create a simple game
- Digital Leaders will create a clicker game in sprite lab where sprites can be removed to score points



Step 5 - Data & Simulations

Can I build my own computer simulation in Sprite Lab?
Do you think online reporting tools work?

- Digital Leaders will study the simulation to understand how quickly a virus can spread and what can be done to slow it down
- Digital Leaders will follow instructions to code their own simulation model.



Step 2 - Variables

Can I manage groups of sprites with the same costume?
Why do you think some young people do not want to report?

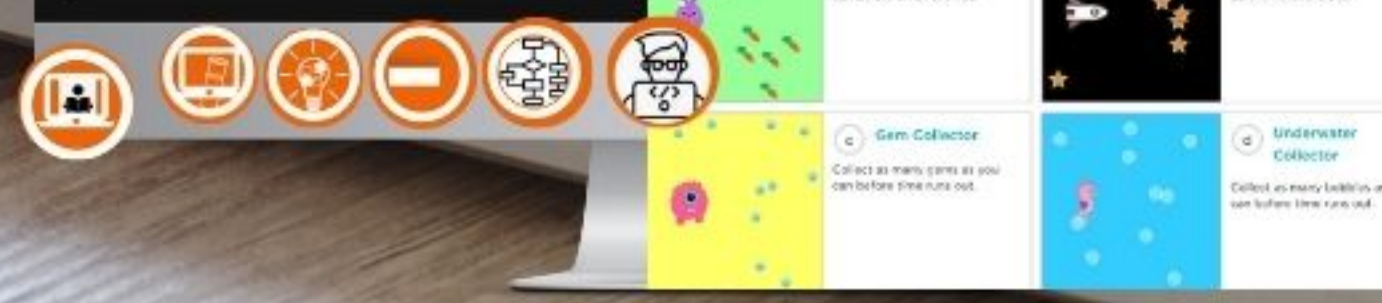
- Digital Leaders know how to utilise variables to program groups of sprites
- Digital Leaders will create Sprite Lab programs where sprites are created in groups, and controlled individually using events.



Step 4 - Variables

Can I create my own collector game in Sprite Lab?
Would you know what to do if you were being bullied online?

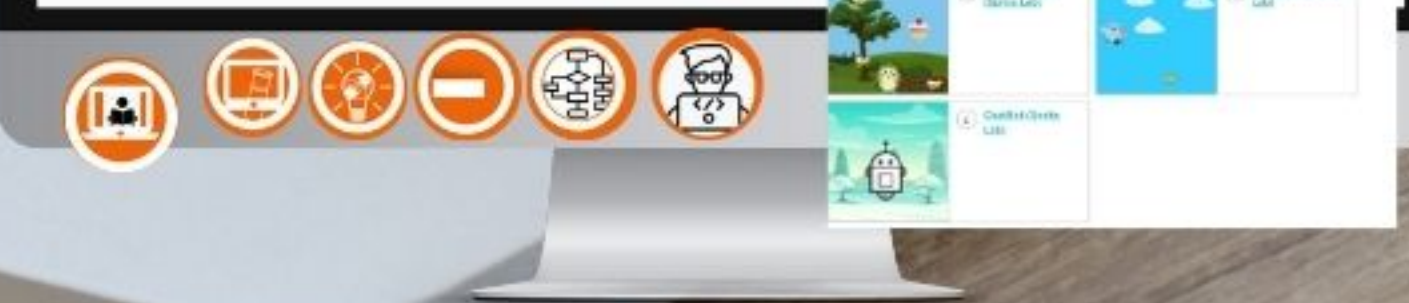
- Digital Leaders know how to apply their new knowledge of variables
- Digital Leaders know how to modify the value stored in a variable
- Digital Leaders will create a customised collector game, in which the user moves a sprite around to collect objects
- Digital Leaders will use multiple sprites which are controlled individually and variables to track the player's score



Step 6 - Project

Can I design, develop and showcase a new project?
Where else can you find help and support if tools and strategies aren't working for you?

- Digital Leaders know how to overcome obstacles such as time constraints or bugs
- Digital Leaders know how to resolve issues in their code
- Digital Leaders will articulate the design process and how it helped shape the finished culminating project
- Digital Leaders know how system limitations can affect project design
- Digital Leaders will plan in advance for an ongoing assignment



Year 1 - Data & Information (Grouping Data)



Digital Literacy

Use technology purposefully to create, organise, store, manipulate, and retrieve digital content

Use technology safely and respectfully

Online Safety

Managing Online Information - give examples of how to find information using digital technologies.

Understand that we can encounter a range of things online including things we like and don't like as well as things which are real or a joke. Know how to get help from a trusted adult if we see content that makes us feel sad, uncomfortable, worried or frightened

Key Vocabulary

objects, labels, groups, count, input, properties, compare, describe

Step 1

Can I label objects?



What devices can we use to get on the internet?

- Digital Leaders know that objects have many different labels and can be put into groups
- Digital Leaders will describe objects using labels
- Digital Leaders will match objects to groups
- Digital Leaders will identify the label for a group of objects

Step 3

Can I describe objects in different ways?



Why does the internet have lots of information?

- Digital Leaders know that objects can be described in many different ways
- Digital Leaders know why we need to give labels to images on a computer
- Digital Leaders will describe an object
- Digital Leaders will describe a property of an object
- Digital Leaders will find objects with similar properties



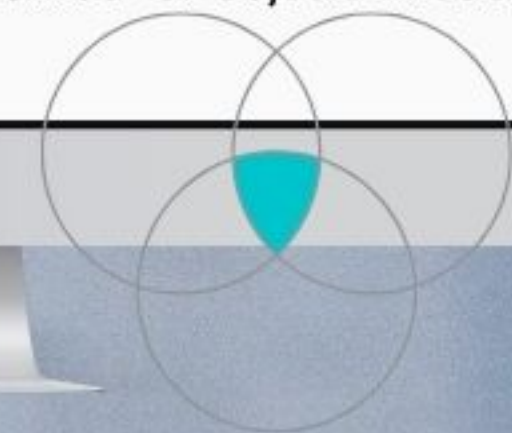
Step 5

Can I compare groups of objects?



Who puts information on the internet?

- Digital Leaders know that objects can be described in different ways
- Digital Leaders will choose how they want to group different objects by properties
- Digital Leaders will begin to compare and describe groups of objects, then they will record the number of objects in each group



Step 2

Can I identify that objects can be counted?



Have you ever talked to a device?

- Digital Leaders know that computers are not intelligent and need input from humans to perform tasks
- Digital Leaders will count objects
- Digital Leaders will group objects
- Digital Leaders will count a group of objects with the same label



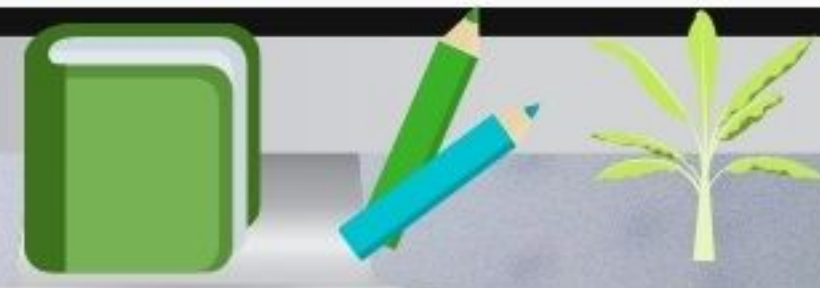
Step 4

Can I count objects with the same properties?



Is 'information' always true?

- Digital Leaders know that objects can be described in many different ways
- Digital Leaders will classify objects based on their properties and will be able to explain how they have grouped these
- Digital Leaders will begin to group a number of the same objects in different ways and will demonstrate their ability to count these different groups



Step 6

Can I answer questions about a group of objects?



What can we do if we see information online that makes us upset?

- Digital Leaders know how to group objects according to a property of their choice
- Digital Leaders will decide how to group objects to answer questions
- Digital Leaders will compare their groups by thinking about how they are similar or different and they will record what they find
- Digital Leaders will then share what they have found with their peers



Year 2 - Data & Information (Pictograms)



Digital Literacy

Use technology purposefully to create, organise, store, manipulate, and retrieve digital content

Use technology safely and respectfully

Online Safety
Managing Online Information - Use simple keywords in search engines. Demonstrate how to navigate a simple webpage to get to information I need. Explain what voice activated searching is and how it might be used, and know it is not a real person. Explain the difference between things that are imaginary and things which are true. Explain why some information I find online may not be real or true

Key Vocabulary

organising, data, tally chart, counting, comparing, pictogram, more than, less than, most/least, block diagram

Step 1



Can I recognise that we can count and compare objects using tally charts?

Have you ever searched for something online?

- Digital Leaders know the importance of organising data effectively for counting and comparing
- Digital Leaders will create their own tally charts to organise data and represent the tally count as a total
- Digital Leaders will answer questions comparing totals in tally charts



Step 3



Can I create a pictogram?

What is a keyword?

- Digital Leaders know how to effectively collect data and the importance of this.
- Digital Leaders know the benefits of different data collection methods
- Digital Leaders will collect data to create a tally chart and use this to make a pictogram on a computer
- Digital Leaders will explain what their finished pictogram shows by writing a range of statements to describe this



Step 5



Can I recognise that people can be described by attributes?

Are there some questions that are better to ask a grown up?

- Digital Leaders know that people can be described by attributes
- Digital Leaders will practice using attributes to describe images of people and the other learners in the class
- Digital Leaders will collect data needed to organise people using attributes and create a pictogram to show this
- Digital Leaders will draw conclusions from their pictograms and share their findings



Step 2



Can I recognise that objects can be represented as pictures?

What is a website? What is a webpage?

- Digital Leaders know the advantages of using computers rather than manual methods to create pictograms and use this to answer simple questions
- Digital Leaders will create pictograms manually and then progress to creating them using a computer
- Digital Leaders will enter data on to a computer and view data in different formats



Step 4



Can I select objects by attribute and make comparisons?

How does a smart speaker answer questions?

- Digital Leaders know ways in which objects can be grouped by attribute
- Digital Leaders will tally objects using a common attribute and present the data in the form of a pictogram
- Digital Leaders will answer questions based on their pictograms using mathematical vocabulary



Step 6



Can I explain that we can present information using a computer?

Social Media/Gaming Focus

- Digital Leaders know that there are other ways to present data than using tally charts and pictograms
- Digital Leaders will use a pre-made tally chart to create a block diagram on their device
- Digital Leaders will share their data with a partner and discuss their findings
- Digital Leaders will consider whether it is always ok to share data and when it is not ok



Year 3 - Data & Information (Branching Databases)



Digital Literacy
Select, use and combine a variety of software (including internet service) 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


Online Safety
Managing Online Information - Demonstrate how to use key phrases in search engines to gather accurate information online. Explain what autocomplete is and how. To choose the best suggestion. Explain how the internet can be used to sell and buy things. Explain the difference between a 'belief', an 'opinion' and a 'fact'. Give examples of how and where they might be shared online.

Key Vocabulary
yes/no question, compare, groups, branching database, attributes, order

Step 1

Can I create questions with yes/no answers?
What is autocomplete?


- Digital Leaders know what a yes/no question is
- Digital Leaders will explore questions with yes/no answers, and how these can be used to identify and compare objects
- Digital Leaders will create their own yes/no questions, before using these to split a collection of objects into groups



Step 3

Can I create a branching database?
How many different ways are there to spend money online?


- Digital Leaders know how to order objects/images in a branching database structure
- Digital Leaders will use an online database tool (<https://www.j2e.com/jit5#branch>) to arrange objects into a branching database, and will create their own questions with yes/no answers
- Digital Leaders will show that their branching database works through testing



Step 5

Can I plan the structure of a branching database?
How do you know if evidence is credible?


- Digital Leaders will independently plan a branching database by creating a physical representation of one that will identify different types of dinosaur
- Digital Leaders will continue to think about the attributes of objects to write questions and yes/no answers, which will enable them to separate a group of objects into a tree structure, before testing the structure



Step 2

Can I identify the attributes needed to collect data about an object?
How trustworthy is autocomplete?


- Digital Leaders know how to use yes/no answers to group objects more than once
- Digital Leaders will learn how to arrange objects into a tree structure and will continue to think about which attributes the questions are related to



Step 4

Can I explain why is it helpful for a database to be well structured?
What is the difference between a belief, an opinion and a fact?

- Digital Leaders know how to create a well-structured database
- Digital Leaders will use attributes to create questions with yes/no answers, and will apply these to given objects
- Digital Leaders will compare the efficiency of different branching databases, and will be able to explain why questions need to be in a specific order



Step 6

Can I independently create an identification tool?
Does it matter if we have different opinions from our family or friends?

- Digital Leaders will independently create a branching database to identify different types of dinosaur, based on the paper-based version that they created in the previous lesson
- Digital Leaders will work with a partner to test that their database works, before considering real-world applications for branching databases



Big Ideas

- Think, communicate, be a digital leader
- Safe Digital Citizenship
- Respectful Digital Citizenship
- Computational Thinking
- Creativity

Year 3 - Data & Information (Branching Databases)



Digital Literacy
Select, use and combine a variety of software (including internet service) 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

Online Safety
Managing Online Information - Demonstrate how to use key phrases in search engines to gather accurate information online. Explain what autocomplete is and how. To choose the best suggestion. Explain how the internet can be used to sell and buy things. Explain the difference between a 'belief', an 'opinion' and a 'fact'. Give examples of how and where they might be shared online.

Key Vocabulary
yes/no question, compare, groups, branching database, attributes, order

Step 1

Can I create questions with yes/no answers?
What is autocomplete?

- Digital Leaders know what a yes/no question is
- Digital Leaders will explore questions with yes/no answers, and how these can be used to identify and compare objects
- Digital Leaders will create their own yes/no questions, before using these to split a collection of objects into groups

Step 3

Can I create a branching database?
How many different ways are there to spend money online?

- Digital Leaders know how to order objects/images in a branching database structure
- Digital Leaders will use an online database tool (<https://www.j2e.com/jit5#branch>) to arrange objects into a branching database, and will create their own questions with yes/no answers
- Digital Leaders will show that their branching database works through testing

Step 5

Can I plan the structure of a branching database?
How do you know if evidence is credible?

- Digital Leaders will independently plan a branching database by creating a physical representation of one that will identify different types of dinosaur
- Digital Leaders will continue to think about the attributes of objects to write questions and yes/no answers, which will enable them to separate a group of objects into a tree structure, before testing the structure

Step 2

Can I identify the attributes needed to collect data about an object?
How trustworthy is autocomplete?

- Digital Leaders know how to use yes/no answers to group objects more than once
- Digital Leaders will learn how to arrange objects into a tree structure and will continue to think about which attributes the questions are related to

Step 4

Can I explain why is it helpful for a database to be well structured?
What is the difference between a belief, an opinion and a fact?

- Digital Leaders know how to create a well-structured database
- Digital Leaders will use attributes to create questions with yes/no answers, and will apply these to given objects
- Digital Leaders will compare the efficiency of different branching databases, and will be able to explain why questions need to be in a specific order

Step 6

Can I independently create an identification tool?
Does it matter if we have different opinions from our family or friends?

- Digital Leaders will independently create a branching database to identify different types of dinosaur, based on the paper-based version that they created in the previous lesson
- Digital Leaders will work with a partner to test that their database works, before considering real-world applications for branching databases

Big Ideas

- Think, communicate, be a digital leader
- Safe Digital Citizenship
- Respectful Digital Citizenship
- Computational Thinking
- Creativity

Year 4 - Data & Information (Data Logging)



Digital Literacy
Select, use and combine a variety of software (including internet service) 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

Computer Science
Use sequence, selection, and repetition in programs; work with variables and various forms of input and output

Online Safety
Health, Well-being and Lifestyle. -Explain how using technology can be a distraction from other things, in both a positive and negative way. Identify times or situations when someone may need to limit the amount of time they use technology.

Key Vocabulary
organising, data, data logger, capture, record, software, analyse,

Step 1

Can I explain that data gathered over time can be used to answer questions?
What sort of things do you use technology for, which you need to pay attention?

- Digital Leaders know that data can be collected and how it is collected
- Digital Leaders will think about data being collected overtime and question what can and can't be answered using available data
- Digital Leaders will reflect on the importance of collecting the right data to answer question

Step 3

Can I explain that a data logger collects 'data points' from sensors over time?
How do you decide what is important/not important to do when using technology?

- Digital Leaders know how data loggers work
- Digital Leaders will record data at set moments in time and draw parallels with the data points that a data logger captures at regular intervals
- Digital Leaders will use data loggers away from a computer, then they will connect to a computer and download the data

Step 5

Can I identify the data needed to answer questions?
When might you need to take a break from using technology?

- Digital Leaders know that questions can be answered using collected data
- Digital Leaders will choose a question to focus on and then plan the data logging process they need to complete
- Digital Leaders will set up data loggers to check that their plan will work (Arduino Science Journal App)

Step 2

Can I use a digital device to collect data automatically?
Do you ever lose track of time when using technology/going online?

- Digital Leaders know how data is collected automatically using computers such as data loggers
- Digital Leaders will also be introduced to the concept that computers can capture data from the physical world using input devices called 'sensors'
- Digital Leaders will establish that sensors can be connected to data loggers, which can automatically collect data while not attached to a computer

Step 4

Can I recognise how a computer can help us analyse data?
How long do you spend using technology each day/week?

- Digital Leaders will open an existing data file and use software to find out key information
- Digital Leaders will analyse a data file which is a five-hour log of hot water, cooling to room temperature

Step 6

Can I use data from sensors to answer questions?
How can you limit your time using technology?

- Digital Leaders will access and review the data that they have collected using a data logger
- Digital Leaders will then use the data collected to answer the question that they selected in the previous lesson
- Digital Leaders will also reflect on the benefits of using a data logger

Big Ideas

- Think, communicate, be a digital leader
- Safe Digital Citizenship
- Respectful Digital Citizenship
- Computational Thinking
- Creativity

Year 5 - Data & Information (Flat-file Databases)



Digital Literacy

Select, use and combine a variety of software (including internet service) 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 search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content

Online Safety

Privacy & Security - Explain what a strong password is and demonstrate how to create one/ explain how many free apps or services may read and share private information with others. Explain what app permissions are and can give some examples.

Managing Online Information- Explain the benefits and limitations of using different types of search technologies. Explain how some technology can limit the information they are presented with. Explain what is meant by 'being sceptical'; give examples of when and why it is important to be 'sceptical'. Evaluate digital content and explain how to make choices about what is trustworthy. Explain key concepts including information, reviews, fact, opinion, belief, validity, reliability and evidence. Identify ways the internet can draw us to information for different agendas. Describe ways of identifying when online content has been commercially sponsored or boosted. Explain what is meant by the term 'stereotype'. Describe how fake news may affect someone's emotions and behaviour

Key Vocabulary

data, record, database, fields, grouping, sorting, advanced search, chart

Step 1

Can I use a form to record information?

What ways do you know to keep personal information private online?

- Digital Leaders will create a paper version of a record card database.
- Digital Leaders will create a data set linked to a theme
- Digital Leaders will complete records for each of the animals in their database and sort the cards to answer questions about the data

Step 3

Can I outline how to answer questions by grouping and then sorting data?

Do some devices/apps give 'better' search results than others?

- Digital Leaders know how records can be grouped, using both paper record cards and a computer based database from J2E.
- Digital Leaders will use 'grouping' and 'sorting' to answer questions about the data

Step 5

Can I explain that computer programs can be used to compare data visually?

Why would our online habits be collected?

- Digital Leaders know what makes a useful chart, and how charts can be used to compare data
- Digital Leaders will create charts from their data in order to answer questions about it

Step 2

Can I compare paper and computer-based databases?

What information might a free app want to collect?

- Digital Leaders will use a computer-based database to examine how data can be recorded and viewed
- Digital Leaders know that a database consists of 'record', and that each record contains 'fields'.
- Digital Leaders will order records in a different way and compare this database to the paper database they previously created

Step 4

Can I explain that tools can be used to select specific data?

How can we use critical thinking skills online?

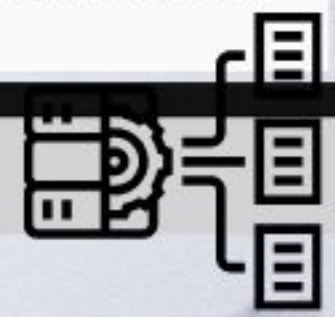
- Digital Leaders will develop search techniques to answer questions about data
- Digital Leaders will use advanced techniques to search for more than one field, and will practise doing this through both unplugged methods, and using a computer database

Step 6

Can I use a real-world database to answer questions?

Why do people share misinformation and disinformation?

- Digital Leaders use a real-life database to ask questions and find answers in the context of a flight search based on set parameters
- Digital Leaders will take on the role of a travel agent and present their findings
- Digital Leaders will present to the whole class



Year 6 - Data & Information (Introduction to Spreadsheets)



Digital Literacy

Select, use and combine a variety of software (including internet service) 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.

Online Safety

Copyright & Ownership - Demonstrate the use of search tools to find and access online content which can be reused by others. Demonstrate how to make references to acknowledge sources I have used from the internet.

Managing Online Information- Explain how search engines work and how results are selected and ranked. Explain how to use search technologies effectively. Describe how some online information can be opinion. Explain how and why some people may present 'opinions' as 'facts'; why the popularity of an opinion or the personalities of those promoting it does not necessarily make it true, fair or perhaps even legal. Define the terms 'influence', 'manipulation' and 'persuasion' and explain how someone might encounter these online. Understand the concept of persuasive design and how it can be used to influence peoples' choices. Demonstrate how to analyse and evaluate the validity of 'facts' and information and I can explain why using these strategies are important. Explain how companies and new providers target people with online news stories they are more likely to engage with and how to recognise this. Describe the difference between online misinformation and dis-information. Explain why information that is on a large number of sites may still be inaccurate or untrue. Identify, flag and report inappropriate content.

Key Vocabulary

- data, collect, organise,
- spreadsheet, cell references,
- data items, formatting,
- chart, cells

Step 1

Can I create a data set in a spreadsheet?

When using a search engine, how do you decide whether you can reuse the content you find?

- Digital Leaders will collect and organise data in a format of their choice
- Digital Leaders know how data can be structured in a table
- Digital Leaders will input data into a spreadsheet

Step 3

Can I explain that formulas can be used to produce calculated data?

How does a search engine work?

- Digital Leaders know that the type of data in a cell is important
- Digital Leaders will begin to use formulas to produce calculated data
- Digital Leaders will create formulas to use in a spreadsheet using cell references and identify that changing inputs will change the output of the calculation

Step 5

Can I create a spreadsheet to plan an event?

How do you know if evidence is valid?

- Digital Leaders will plan and calculate the cost of an event using a spreadsheet
- Digital Leaders will use a predefined list to choose what they would like to include in their events, and use their spreadsheet to answer questions on the data they have selected
- Digital Leaders know the importance of organising data and will then create a spreadsheet using formulas to work out costs for their event

Step. 2

Can I build a data set in a spreadsheet?

How do you reference credit sources you have used online?

- Digital Leaders know the structure of a spreadsheet
- Digital Leaders will be introduced to cell references, data items and the concept of formatting cells
- Digital Leaders will see data items formatted in different ways, they will then choose formats for data items before applying formats in their own spreadsheet

Step 4

Can I apply formulas to data?

What is persuasive design?

- Digital Leaders will calculate data using the operations of multiplication, subtraction, division and addition as in a spreadsheet
- Digital Leaders will then begin to understand the importance of creating formulas
- Digital Leaders will use these operations to create formulas that include a range of cells and the advantage of duplicating in order to apply formulas to multiple cells

Step 6

Can I choose suitable ways to present data?

What is illegal content?

- Digital Leaders will create charts in Google Sheets
- Digital Leaders will evaluate the results from their charts to answer questions
- Digital Leaders will show they understand that there are different software tools available within spreadsheet application to present data

Big Ideas

- Think, communicate, be a digital leader
- Safe Digital Citizenship
- Creativity
- Respectful Digital Citizenship
- Computational Thinking

Year 1 - Creating Media (Digital Writing)



Digital Literacy

Use technology purposefully to create, organise, store, manipulate, and retrieve digital content. Use technology safely and respectfully, keeping personal information private

Online Safety

Copyright & Ownership - Explain why work I create using technology belongs to me. can say why it belongs to me. I can save my work under a suitable title or name so that others know it belongs to me. Understand that work created by others does not belong to me even if I save a copy.

Health, Well-being & Lifestyle - Explain rules to keep myself safe when using technology both in and beyond the home

Key Vocabulary

keys, keyboard, text, caps lock, select, undo, double-tap, drag, backspace

Step 1



Can I use a computer to write?

How could we help other people know that things are ours?

- Digital Leaders will familiarise themselves with a word processor and think about how they might use this application in the future
- Digital Leaders will identify and find keys, before adding text to their page by pressing keys on a keyboard



Step 3



Can I identify that the look of text can be changed on a computer?

What things do you do most at home when you are using technology online?

- Digital Leaders know the different tools that can be used in word processors to change the look of text
- Digital Leaders will use the Caps Lock key to add capital letters to their writing and will begin thinking about how to use this successfully
- Digital Leaders will add simple descriptions to the related keys
- Digital Leaders will explore the different buttons available on the toolbar in more details and use these to change their own text



Step 5



Can I explain why I used the tools that I chose?

Why do you think we have these rules?

- Digital Leaders will justify their use of certain tools when changing text
- Digital Leaders will decide whether the changes that they have made have improved their writing and will begin to use 'undo' to remove changes
- Digital Leaders will begin to consolidate their ability to select text using the cursor, through double-tapping and dragging
- Digital Leaders will be able to explain what tool from the toolbar they have used to change their writing



Step 2



Can I add and remove text on a computer?

How do you know that your work is yours?

- Digital Leaders will continue to familiarise themselves with word processors and how they can interact with the computer using a keyboard
- Digital Leaders will focus on adding text and will explore more of the keys found on a keyboard
- Digital Leaders will begin to use the backspace key to remove text from the computer



Step 4



Can I make careful choices when changing text?

Do you have any rules at home for using technology?

- Digital Leaders know when it is best to change the look of their text and which tool will achieve the most appropriate outcome
- Digital Leaders will begin to use their finger to select text to enable them to make more efficient changes
- Digital Leaders will explore the different fonts available to them and change the font for their lost toy poster



Step 6



Can I compare typing on a computer to writing on paper?

Which rules do you think help to look after your body and brain?

- Digital Leaders will make comparisons between using a computer for writing and writing on paper
- Digital Leaders will discuss how the two methods are the same and different
- Digital Leaders will demonstrate making changes to writing using a computer
- Digital Leaders will begin to explain which method would be the best method to use in different situations



Year 2 - Creating Media (Digital Music)



Online Safety

Digital Literacy

Use technology purposefully to create, organise, store, manipulate, and retrieve digital content.

Online Safety

Copyright & Ownership - Recognise that content on the internet may belong to other people. Describe why other people's work belongs to them

Health, Well-being & Lifestyle - Explain simple guidance for using technology in different environments and settings. I can say how those rules/guides can help anyone accessing online technologies.

Step 1



Can I say how music makes me feel?

If you can't see who owns something online, can you use it?

- Digital Leaders will listen to and compare two pieces of music from *The Planets* by Gustav Holst
- Digital Leaders will use a musical description word bank to describe how this music generates emotions



Step 3



Can I experiment with sound using a computer?

If you can't see who owns something online, can you use it?

- Digital Leaders know how music can be used in different ways to express emotions and to trigger their imaginations
- Digital Leaders will experiment with the pitch of notes to create their own piece of music, which they will then associate with a physical object



Step 5



Can I create music for a purpose?

What happens to you when you've used technology for too long?

- Digital Leaders will choose an object and create a piece of music using the object as inspiration
- Digital Leaders will think about their object moving and create a rhythm pattern from that
- Digital Leaders will define a rhythm and then create a musical pattern to go with it



Step 2



Can I identify that there are patterns in music?

How do we show who things belong to online?

- Digital Leaders know that there are patterns in music
- Digital Leaders will explore rhythm and create patterns and use those patterns as rhythms
- Digital Leaders will use untuned percussion instruments and computers to hear the different rhythm patterns that they create



Step 4



Can I use a computer to create a musical pattern?

What are the good things you use technology for?

- Digital Leaders know that music is a sequence of notes
- Digital Leaders will explain how their music can be played in different ways
- Digital Leaders will refine their musical pattern on a computer



Step 6



Can I review and refine my computer work?

Are there certain times when rules regarding technology are more important than at other times?

- Digital Leaders know how to retrieve their work
- Digital Leaders will spend time making improvements and then share their work with the class



Key Vocabulary

listen, compare, emotions, patterns, rhythm, sequence, pitch, refine, review,

Year 3 - Creating Media (Desktop Publishing)



Digital Literacy

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

Online Safety

Copyright & Ownership - Explain why copying from someone else's work from the internet without permission isn't fair and can explain what problems this might cause

Health, Well-being & Lifestyle - Explain why spending too much time using technology can sometimes have a negative impact on anyone. Explain why some online activities have age restrictions, why it is important to follow them and know who I can talk to if others pressure me to watch or do something online that makes me feel uncomfortable

Key Vocabulary

text, images, templates, orientation, placeholders, content, copy, paste, layout, publishing



Step 1

Can I recognise how text and images convey information?

Where did the internet come from?

- Digital Leaders know what 'text' and 'images' are and that they need to be used carefully to communicate messages clearly
- Digital Leaders will be able to give advantages and disadvantages of using text, images, or both to communicate messages



...the ground or stays
...verse is vast, and you
...also beautiful. You a
...something bigger than yo
...t of something that ma
...most of your time. To
...e a blog post.

Step 3

Can I choose appropriate page settings?

Can you say how playing a game online for a long time can make your body feel?

- Digital Leaders know what the terms 'templates', 'orientation', and 'placeholder's mean
- Digital Leaders will create their own magazine template



Step 5

Can I consider how different layouts can suit different purposes

What are age ratings?

- Digital Leaders know the different ways information can be laid out on a page
- Digital Leaders will look at a range of page layouts and think about the purpose of each of these



Step 2

Can I recognise that text and layout can be edited?

Who owns the stuff you see on the internet?

- Digital Leaders know how to make careful choices regarding font size and colour
- Digital Leaders know that once content has been accessed, it can be rearranged on the page
- Digital Leaders will use the return, backspace, and shift keys to use punctuation effectively



Step 4

Can I add content to a desktop publishing publication?

Do you notice if a lot of time has passed when you play a game, or watch a video?

- Digital Leaders will add their own content to the magazine templates
- Digital Leaders will copy information for the front of their magazine from a prewritten document and paste it into the chosen place on their cover
- Digital Leaders will add images from within the search facility in Adobe Spark



Step 6

Can I consider the benefits of desktop publishing?

What sort of content would make a game have a higher age rating?

- Digital Leaders know what desktop publishing is
- Digital Leaders will think about how desktop publishing is used in the wider world and consider the benefits of using desktop publishing applications



Year 4 - Creating Media (Photo Editing)



Digital Literacy

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

Online Safety

Copyright & Ownership - When searching on the internet for content to use, I can explain why I need to consider who owns it and whether I have the right to reuse it. I can give some simple examples of content which I must not use without permission from the owner

Key Vocabulary

editing, rotate, crop, composition, colours, filters, effects, copy, paste, retouched, combined, review

Online Safety

Step 1

Can I explain that the composition of digital images can be changed?

Who owns the content posted on social media?

- Digital Leaders know the concept 'editing'
- Digital Leaders will explore when we need to rotate and crop an image as well as how to use an image editor to make these changes
- Digital Leaders will discuss image composition

Step 3

Can I explain how cloning can be used in photo editing?

How would you know if it is okay to reuse someone else's content online?

- Digital Leaders know how the cloning tool changes the composition of a photo and photo retouching
- Digital Leaders will see how parts of a photo can be removed or duplicated using cloning
- Digital Leaders will consider what parts of an image can be retouched and learn techniques to make this as unnoticeable as possible
- Digital Leaders will consider when it is necessary to edit photographs in this way

Step 5

Can I combine images for a purpose?

Social Media/Gaming Focus

- Digital Leaders will apply the skills they have learnt in the unit so far
- Digital Leaders will start by reviewing some images and considering what makes an image look real or made up
- Digital Leaders will then plan their own image
- Digital Leaders will choose from a selection of images, open them and edit them to create their own project

Step 2

Can I explain that colours can be changed in digital images?

What does reusing online content mean?

- Digital Leaders will look at the effect that different colours and filters can have on an image
- Digital Leaders will choose appropriate effects to fit a scenario, and explain how they made their choices
- Digital Leaders will then edit the images using different effects to suit two different scenarios

Step 4

Can I explain that images can be combined?

Have you ever used content that belongs to someone else?

- Digital Leaders know how to use different tools to select areas of an image
- Digital Leaders will copy and paste within one image and between two images to produce a combined image
- Digital Leaders will consider when it is appropriate to edit an image and discuss some of the ethics around retouching photos

Step 6

Can I evaluate how changes can improve an image?

Social Media/Gaming Focus

- Digital Leaders will review the image that they created
- Digital Leaders will have the opportunity to make changes to their image based on their review
- Digital Leaders will then add text to their image to complete it as a publication



Year 5 - Creating Media (Vector Drawing)



Information Technology

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.

Online Safety

Health, Well-being and Lifestyle - Describe ways technology can affect health and well-being both positively and negatively. Describe some strategies, tips or advice to promote health and well-being with regards to technology. Recognise the benefits and risks of accessing information about health and well-being online and how we should balance this with talking to trusted adults and professionals. Explain how and why some apps and games may request or take payment for additional content and explain the importance of seeking permission from a trusted adult before purchasing

Key Vocabulary

vector, drawing, shapes, lines, object, moving, resizing, rotating, duplicate, zoom, grids, modify, layers, group, ungroup

Step 1

Can I identify that drawing tools can be used to produce different outcomes?

What do you need to get a good night's sleep?

- Digital Leaders know that a vector drawing is made up of simple shapes and lines
- Digital Leaders use the main drawing tools in Sketches School App to create their own vector drawings
- Digital Leaders will discuss how vector drawings differ from paper-based drawings

Step 3

Can I use tools to achieve a desired effect?

If you were giving advice to younger children about technology and sleep, what might it be?

- Digital Leaders will increase the complexity of their vector drawings and use the zoom tool to add detail to their work
- Digital Leaders know how grids and resize handles can improve the consistency of their drawings
- Digital Leaders will use tools to modify objects to create a new image

Step 5

Can I group objects to make them easier to work with?

What are in-app purchases?

- Digital Leaders will select and duplicate multiple objects at a single time
- Digital Leaders will group multiple objects to make them easier to work with
- Digital Leaders will use this knowledge to group and ungroup objects, in order to make changes to and develop their vector drawings

Step 2

Can I create a vector drawing by combining shapes?

How do you think our online activities might affect our mood, feelings; our readiness for sleep?

- Digital Leaders know that shapes are used to make vector drawings
- Digital Leaders know that each element of a vector drawing is called an object
- Digital Leaders will create their own vector drawing by moving, resizing, rotating, and changing the colours of a selection of objects
- Digital Leaders will duplicate the objects to save time

Step 4

Can I recognise that vector drawings consist of layers?

Can you list the benefits of researching online?

- Digital Leaders know how layers are used in vector drawings
- Digital Leaders will discover that each object is built on a new layer and that these layers can be moved forwards and backwards to create effective vector drawings

Step 6

Can I apply what I have learned about vector drawings?

Why do you need to ask permission before making an in-app purchase?

- Digital Leaders will use the skills they have gained to create a vector drawing for a specific purpose
- Digital Leaders will reflect on the skills they have used to create the vector drawing and think about why they used the skills they did
- Digital Leaders will compare vector drawing to freehand paint program drawings



Year 6 - Creating Media (3D Modelling)



Information Technology

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.

Online Safety
Health, Well-being and Lifestyle - Describe common systems that regulate age-related content and describe their purpose. Recognise and discuss the pressures that technology can place on someone and how/when they could manage this. Recognise features of persuasive design and how they are used to keep users engaged. Assess and action different strategies to limit the impact of technology on health.

Key Vocabulary

3D modelling, manipulate, resize, workplane, recolour, dimensions, duplicate, grouping, ungrouping, evaluate



Step 1



Can I recognise that you can work in three dimensions on a computer?

Why do we have age rated regulations - what do we want them to do?

- Digital Leaders know that 3D modelling is creating a range of 3D shapes that they can select and move
- Digital Leaders will examine shapes from a variety of views within the 3D space



Step 3



Can I recognise that objects can be combined in a 3D model?

What is a healthy digital balance?

- Digital Leaders will develop their understanding of manipulating digital 3D objects
- Digital Leaders will rotate objects in three dimensions, duplicate objects, and then use grouping and ungrouping to manipulate many objects at once
- Digital Leaders will combine these skills to create their own 3D name badge
- Digital Leaders will consider the practicality of 3D printing the objects they have made



Step 5



Can I plan my own 3D model?

What could you do to reduce the effect that persuasive design techniques can have on you?

- Digital Leaders know how computer-based 3D design is used in architecture to plan buildings
- Digital Leaders will explode 3D models of buildings to see what shapes they comprise of
- Digital Leaders will then plan their own 3D building design



Step 2



Can I identify that digital 3D objects can be modified?

What could you do to help you see/play/use the things that are right for you online?

- Digital Leaders will manipulate 3D objects digitally
- Digital Leaders will resize objects in one, two, and three dimensions
- Digital Leaders will list and lower 3D objects relative to the workplane, and combine two 3D objects to make a new shape
- Digital Leaders will recolour 3D objects



Step 4



Can I create a 3D model for a given purpose?

Can your online experience ever stop being 'fun and enjoyable'?

- Digital Leaders know that they can accurately resize and move shapes using dimensions
- Digital Leaders will create holes in objects using placeholders
- Digital Leaders will resize multiple objects to create a meaningful 3D object



Step 6



Can I create my own digital 3D model?

Can technology be used to improve health? How?

- Digital Leaders will create a computer 3D model based on their design
- Digital Leaders will evaluate their model and that of another learner, before modifying their own model to improve it



Jobs Junction



Subject Specific Vocabulary / Our Designers Toolkit of Technical Terms.
Leaders have identified the key subject specific vocabulary that learners will master on their journey to becoming expert designers.



Computer Systems and Networks

Jobs Journal of Technical Vocabulary



Year 1 Technology, computer, mouse, trackpad, keyboard, screen, typing

Year 2 Information Technolgy, Computer, barcode, scanner/ scan

Year 3 Digital device, input, process, output, program, digital, non-digital, connection, network, network switch, server, wireless, access point

Year 4 Internet, network security, network router, network switch, server, wireless access point (WAP), website, web page, web address, routing, web browser, world wide web, content, links, files, use, download, sharing, ownership, permission, information, accurate, honest, adverts

Year 5 System, digital, process, input, output, connection, search, search engine, refine, index, web crawler, bot, ordering, ranking, links, algorithm, search engine optimisation (SEO), content creator, selection

Year 6 Communication, protocol, data, address, internet protocol address (IP), domain name server (DNS), header, packet, data payload, reuse, remix, collaboration, internet, public, private, one-way, two-way, one-to-one, one-to-many

Creating Media

Jobs Journal of Technical Vocabulary



- Year 1** Paint, program, tool, paintbrush, erase, fill, undo, Piet Mondrian, primary colours, shape tools, line tools, undo tool, Henri Matisse, shape tool, fill tool, Wassily Kandinsky, feelings, colour, brush style, Georges Seurat, pointillism, brush size, pictures, painting, computers, like, prefer, dislike
- Year 2** Device, camera, photograph, capture, image, digital, landscape, portrait, format, framing, lighting, focus, filter
- Year 3** Audio, microphone, speaker, headphones, input device, output device, sound, podcast, edit, trim, align, layer, import, record, edit, play back, selection
- Year 4** Internet, network security, network router, network switch, server, wireless access point (WAP), website, web page, web address, routing, web browser, world wide web, content, links, files, use, download, sharing, ownership, permission, information, accurate, honest, adverts
- Year 5** Video, audio, camera, talking head, panning, close up, microphone, lens, mid range, long shot, moving subject, side by side, high angle, low angle, normal angle
- Year 6** Website, HTML, copy-right, fair use, reputation, hyperlinks, web page, edit, evaluate

Coding

Jobs Journal of Technical Vocabulary



Year 1 Spr 1 - drag, drop, touchscreen, algorithm, debugging, program, tap, double-tap, drop, bug, programming, loop, repeat. Spr 2 - loop, repeat, event

Year 2 Spr 1 - program, bug, debugging, north, south, east, west, tap, double-tap, drag, drop, algorithm, program, programming, persistence, loop, repeat. Spr 2 - loop, retreat, event

Year 3 Spr 1 - Algorithm, bug, debugging, program, programming, sequencing, persistence, angle, loop, repeat, command. Spr 2 - loop, retreat, event

Year 4 Spr 1 - Algorithm, program, bug, debugging, loop, program, programming, event.
Spr 2 - loop, repeat, command, condition, conditionals, while loop, until loop

Year 5 Spr 1 - Behaviour, sprite, event, loop, repeat.
Spr 2 - function, define, prepare, reflect, try, copyright, conditionals

Year 6 Spr 1 - Sprite, user, algorithm, behaviour, program, event, variable, prompt
Spr 2 - input, prompt, variable, events, models, simulations

Creating Media

Jobs Journal of Technical Vocabulary



Year 1 keys, keyboard, text, caps lock, select, undo, double-tap, drag, backspace

Year 2 listen, compare, emotions, patterns, rhythm, sequence, pitch, refine, review,

Year 3 text, images, templates, orientation, placeholders, content, copy, paste, layout, publishing

Year 4 editing, rotate, crop, composition, colours, filters, effects, copy, paste, retouched, combined, review

Year 5 vector, drawing, shapes, lines, object, moving, resizing, rotating, duplicate, zoom, grids, modify, layers, group, ungroup

Year 6 3D modelling, manipulate, resize, workplane, recolour, dimensions, duplicate, grouping, ungrouping, evaluate


Progression Overviews




Leaders have carefully mapped out progression in knowledge and skills, identifying progression across the design, make and evaluate curriculum strands and within our studies of Computer Science, Information Technology and Digital Literacy, including e-Safety.



Progression in Knowledge and skills – Online & Digital Literacy




Self-Image and Identity



Online Relationships




Privacy and Security




Online Reputation



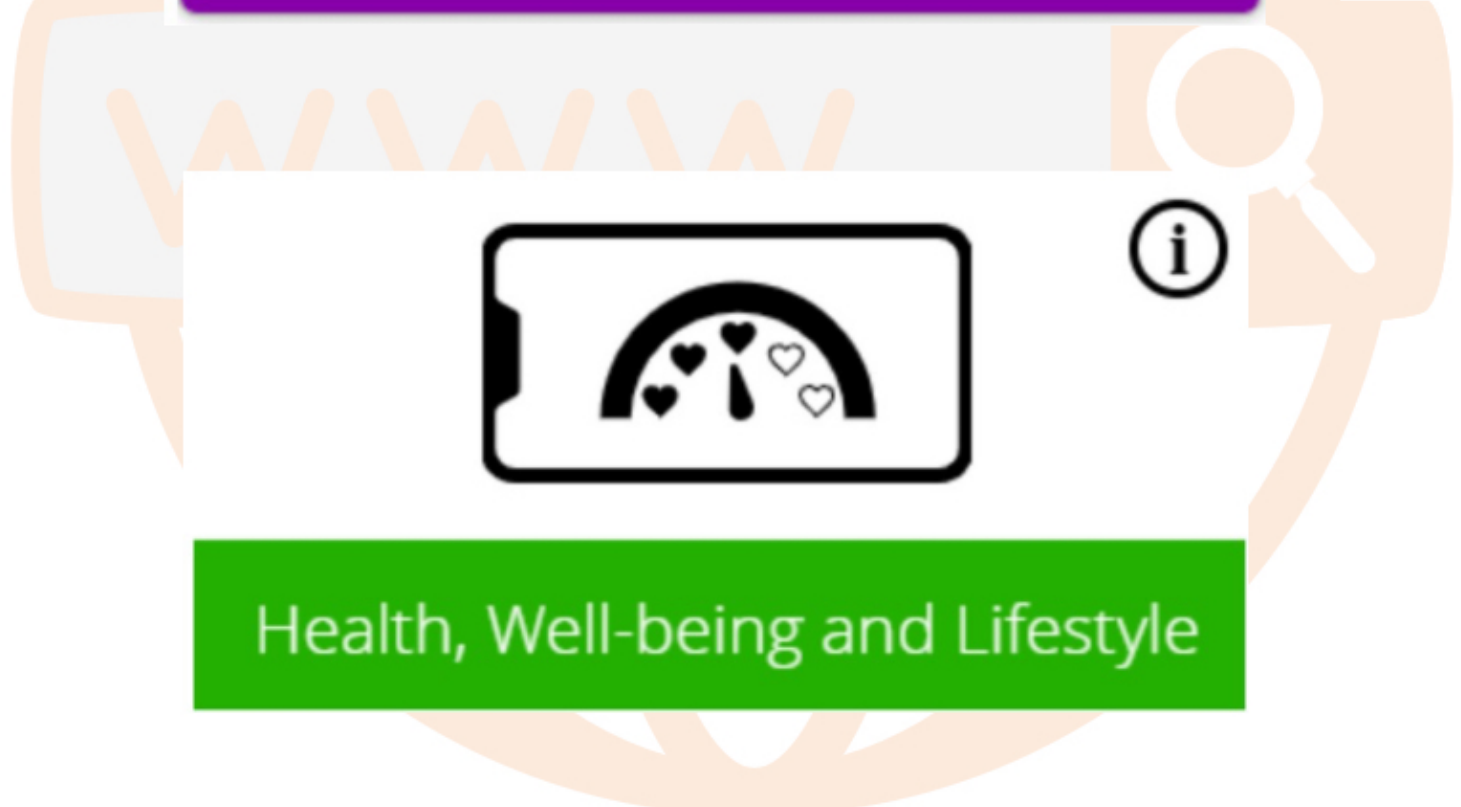
Online Bullying



Managing Online Information



Health, Well-being and Lifestyle



Progression in Knowledge and skills – Online & Digital Literacy



EYFS

- Know and recognise, online or offline, that anyone can say 'no' – 'please stop' – 'I'll tell' – 'I'll ask' to somebody who makes them feel sad, uncomfortable, embarrassed or upset.

Year 1

- Know that there may be people online who could make someone feel sad, embarrassed or upset.
- Know if something happens that makes me feel sad, worried, uncomfortable or frightened I can give examples of when and how to speak to an adult I can trust and how they can help.

Year 2

- Digital citizens can explain how other people may look and act differently online and offline.
- Know and give examples of issues online that might make someone feel sad, worried, uncomfortable or frightened.
- Digital citizens can give examples of how they might get help.

Year 3

- Know what is meant by the term 'identity'.
- Know and explain how people can represent themselves in different ways online.
- Digital citizens can explain ways in which someone might change their identity depending on what they are doing online (e.g. gaming; using an avatar; social media) and why.

Year 4

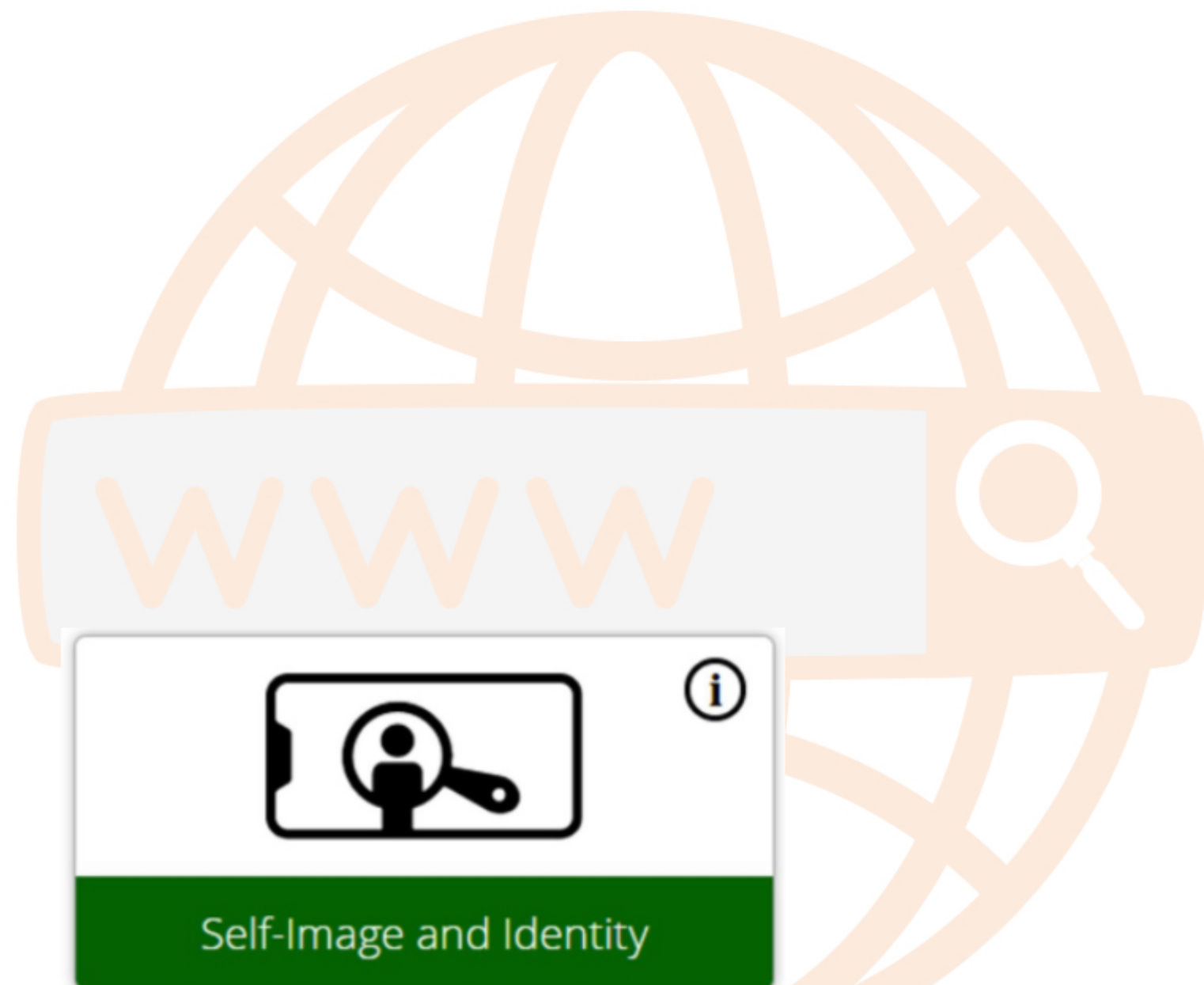
- Know how their online identity can be different to my offline identity.
- Digital citizens can describe positive ways for someone to interact with others online and understand how this will positively impact on how others perceive them.
- Digital citizens can explain that others online can pretend to be someone else, including my friends, and can suggest reasons why they might do this.

Year 5

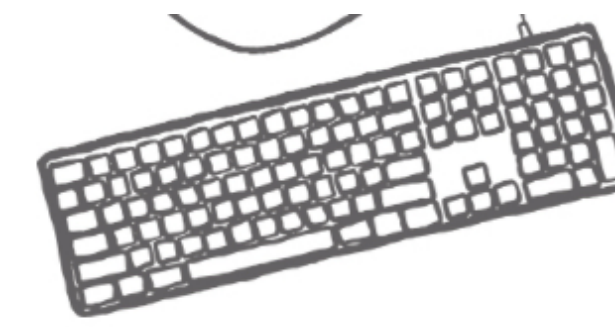
- Know and demonstrate how to make responsible choices about having an online identity, depending on context.
- Digital citizens explain how identity online can be copied, modified or altered.

Year 6

- Know issues online that could make anyone feel sad, worried, uncomfortable or frightened. Know and can give examples of how to get help, both on and offline.
- Digital citizens can identify and critically evaluate online content relating to gender, race, religion, disability, culture and other groups, and explain why it is important to challenge and reject inappropriate representations online.
- Digital citizens can explain the importance of asking until they get the help needed.



Progression in Knowledge and skills – Online & Digital Literacy



EYFS

- Know and recognise some ways in which the internet can be used to communicate.
- Digital citizens can give examples of how they might use technology to communicate with people they know.

Year 1

- Know and give examples of when they should ask permission to do something online and explain why it is important.
- Know and use the internet with adult support to communicate with people they know (e.g. video call apps or services)
- Know and explain why it is important to be considerate and kind to people online to respect their choices.
- Know and explain why things one person finds funny or sad online may not always be seen in the same way by others.

Year 2

- Digital citizens can give examples of how someone might use technology to communicate with others they don't also know offline & explain why this might be risky. (E.g. email, online gaming, a pen-pal in another school/ country).
- Digital citizens can explain who they should ask before sharing things about themselves or others online.
- Digital citizens can describe different ways to ask for, give, or deny my permission online & can identify who can help them if they are not sure.
- Know and explain why they have a right to say 'no' or 'I will have to ask someone'. They can explain who can help them if they feel under pressure to agree to something they are unsure about or don't want to do.
- Know who can help them if something happens online without their consent.
- Know and explain how it may make others feel if they do not ask their permission or ignore their answers before sharing something about them online.
- Know & explain why they should always ask a trusted adult before clicking 'yes,' 'agree' or 'accept' online.

Year 3

- Know and explain the importance of giving & gaining permission before sharing things online; how the principles of sharing online is the same as sharing offline e.g. sharing images & videos.
- Know and explain what it means to know someone online & why this might be different from knowing someone offline.
- Digital citizens can explain why someone may change their mind about trusting anyone with something if they feel nervous, uncomfortable or worried.
- Digital citizens can describe ways people who have similar likes & interests can get together online.
- Know & explain what is meant by 'trusting someone online', why this is different from 'liking someone online', and why it is important. To be careful about who to trust online including what information & content they are trusted with.
- Digital citizens can explain how someone's feelings can be hurt by what is said or written online.

Year 4

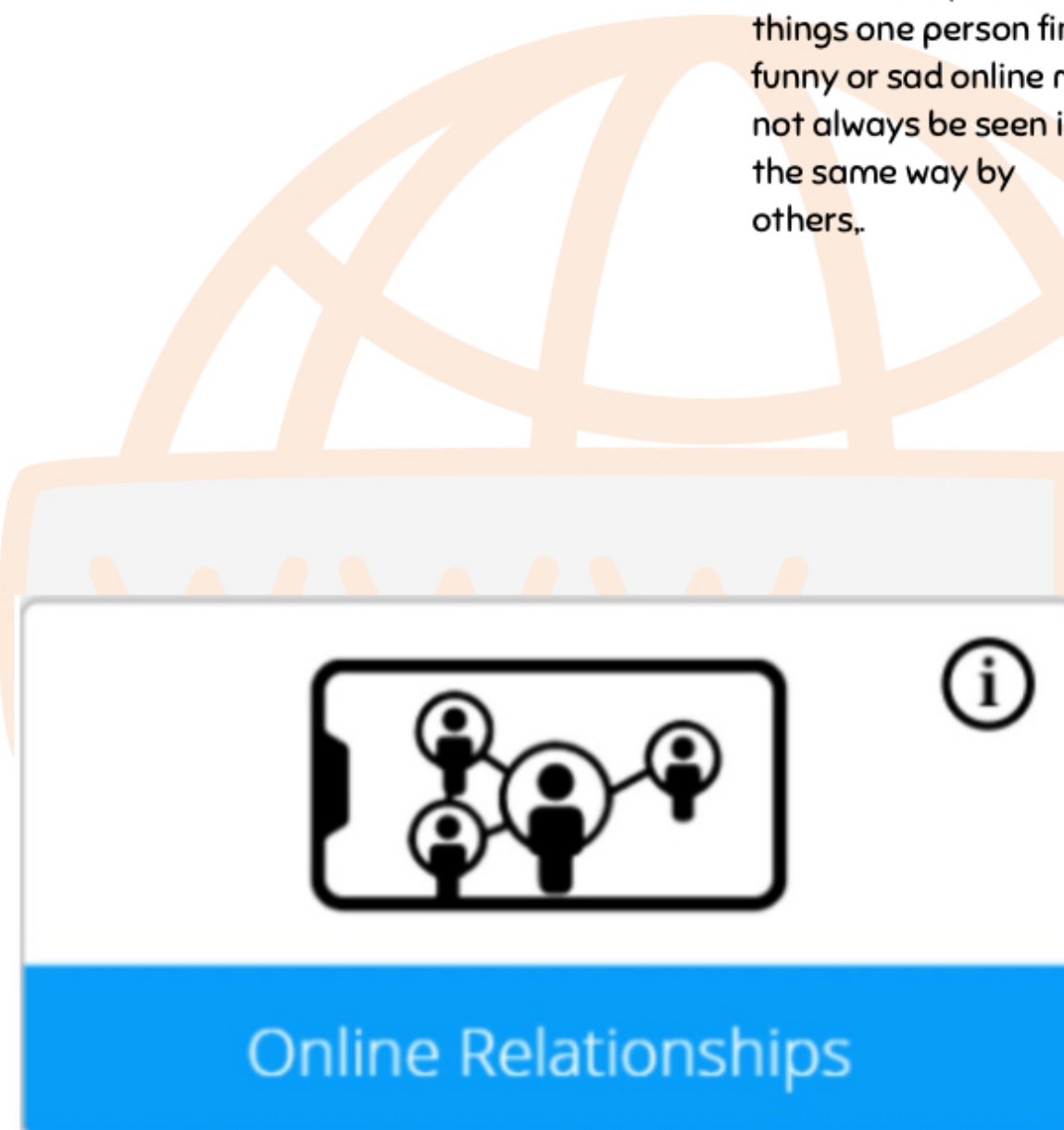
- Know and describe strategies for safe and fun experiences in a range of online social environments (e.g. live-streaming, gaming platforms).
- Digital citizens can give examples of how to be respectful to others online & describe how to recognise healthy & unhealthy online behaviours.
- Digital citizens can explain how content shared online may feel unimportant to one person but may be important to other people's thoughts feelings & beliefs.

Year 5

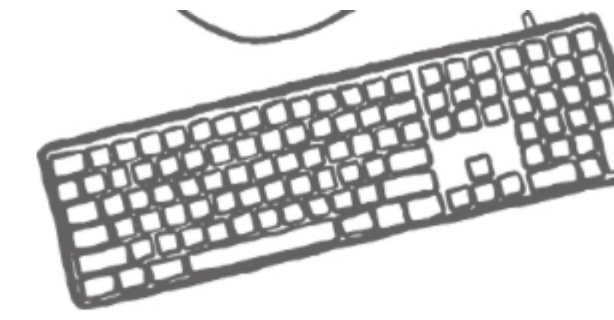
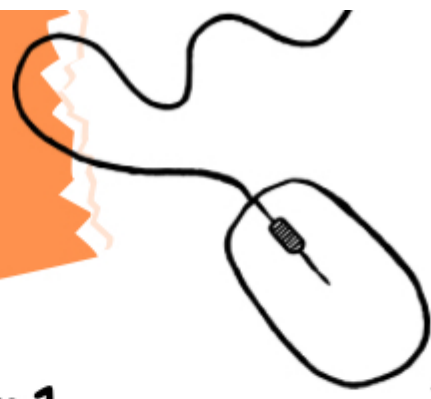
- Know and give examples of technology-specific forms of communication (e.g. emojis, memes and GIFs).
- Know and explain that there are some people they communicate with online who may want to do them or their friends harm.
- Digital citizens can recognise that this is not their fault.
- Know & describe some of the ways people may be involved in online communities & describe how they might collaborate constructively with others & make positive contributions. (E.g. gaming communications or social media groups).
- Know & explain how someone can get help if they are having problems and identify when to tell a trusted adult.
- Digital citizens can demonstrate how to support others (including those who are having difficulties) online.

Year 6

- Know and explain that taking or sharing inappropriate images of someone (e.g. embarrassing images), even if they say it is okay, may have an impact for the sharer & others; and who can help if someone is worried about this.
- Digital citizens can describe how to be kind & show respect for others online including the importance of respecting boundaries regarding what is shared about them online & how to support them if others do not.
- Digital citizens can describe how things shared privately online can have unintended consequences for others e.g. screen-grabs.
- Digital citizens explain how sharing something online may have an impact either positively or negatively.



Progression in Knowledge and skills – Online & Digital Literacy



EYFS

- Digital citizens can identify ways that they can put information on the internet.

Year 1

- Know and recognise that information can stay online and could be copied.
- Digital citizens can describe what information they should not put online without asking a trusted adult first.

Year 2

- Digital citizens can explain how information put online about someone can last for a long time.
- Digital citizens can describe how anyone's online information could be seen by others.
- Know who to talk to of something has been put online without consent or if it is incorrect.

Year 3

- Know and explain how to search for information about others online.
- Know and explain who someone can ask if they are unsure about putting something online.
- Digital citizens can give examples of what anyone may or may not be willing to share about themselves online. I can explain the need to be careful before sharing anything personal.

Year 4

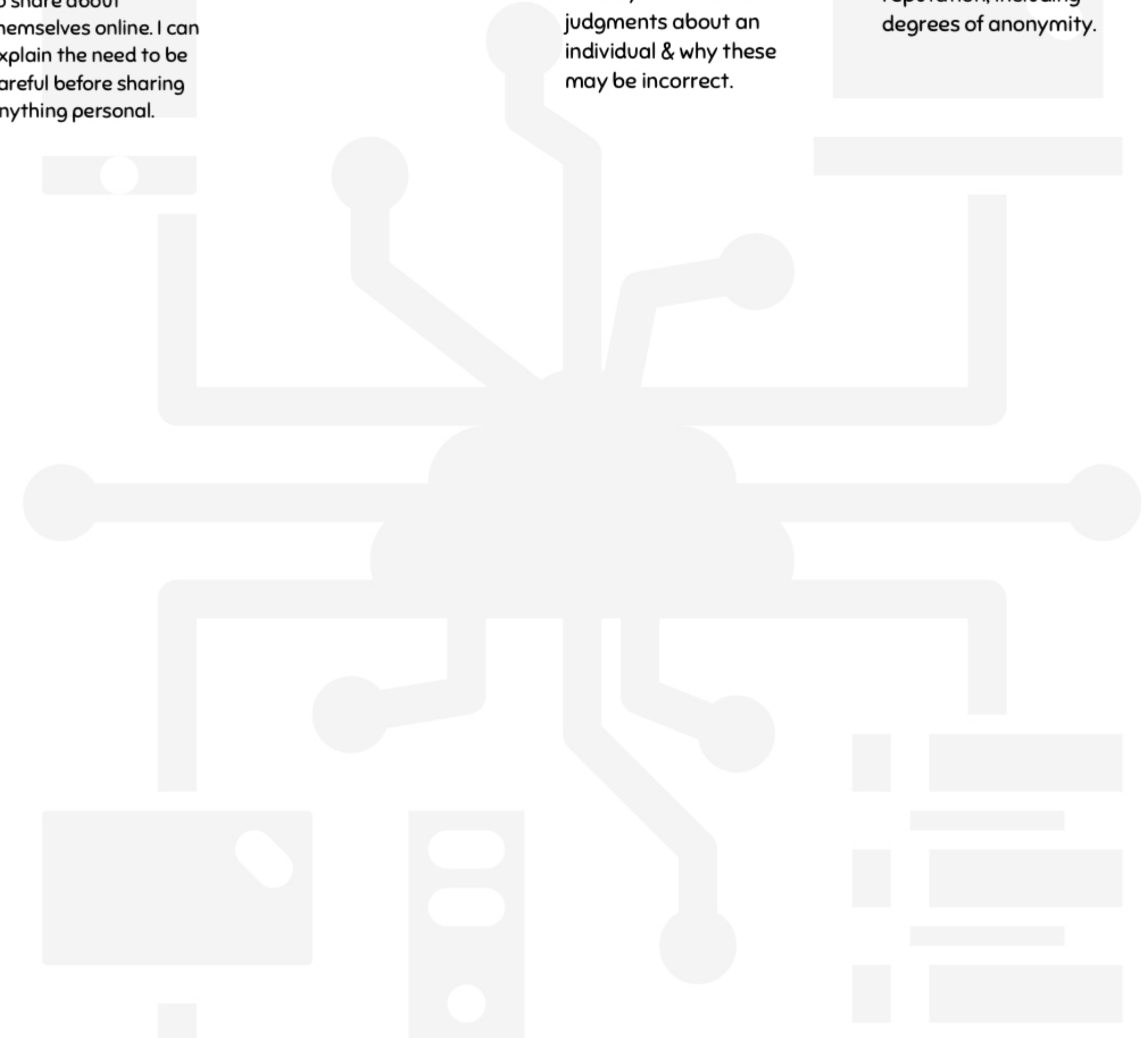
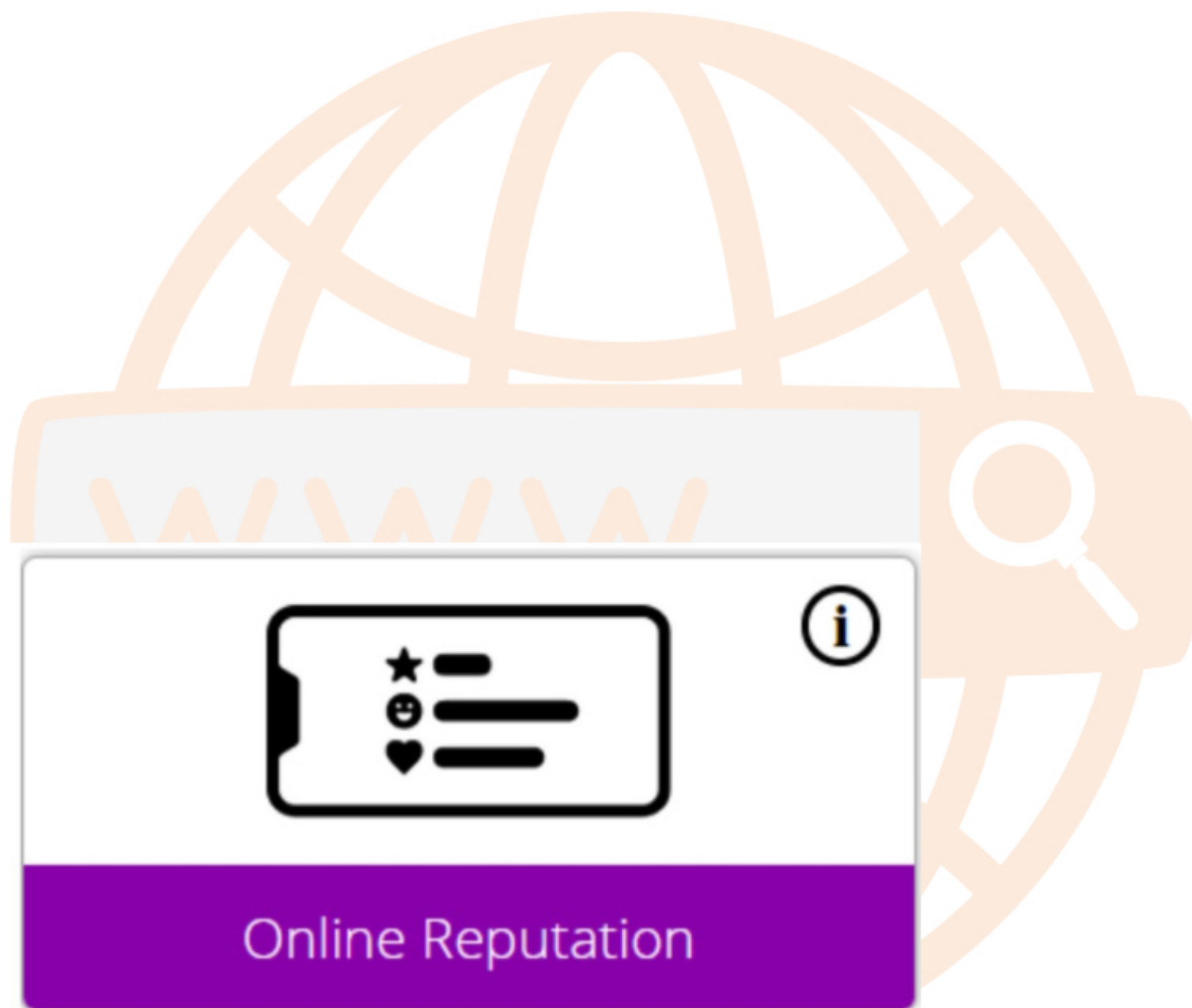
- Know and describe how to find out information about others by searching online.
- Digital citizens can explain ways that some of the information about anyone online could have been created, copied or shared by others.

Year 5

- Know how to search for information about an individual online & summarise the information found.
- Digital citizens can describe ways that information about anyone online can be used by others to make judgments about an individual & why these may be incorrect.

Year 6

- Know and explain the ways in which anyone can develop a positive online reputation.
- Digital citizens can explain strategies anyone can use to protect their 'digital personality' & online reputation, including degrees of anonymity.



Progression in Knowledge and skills – Online & Digital Literacy



EYFS

- Digital citizens can describe ways that some people can be unkind online.
- Digital citizens can offer examples of how this can make others feel.

Year 1

- Know and describe how to behave online in ways that do not upset others & can give examples.

Year 2

- Digital citizens can explain what bullying is, how people may bully others & how bullying can make someone feel.
- Digital citizens can explain why anyone who experiences bullying is not to blame.
- Digital citizens can talk about how anyone experiencing bullying can get help.

Year 3

- Know and describe appropriate ways to behave towards other people online and why this is important.
- Digital citizens can give examples of how bullying behaviour could appear online and how someone can get support.

Year 4

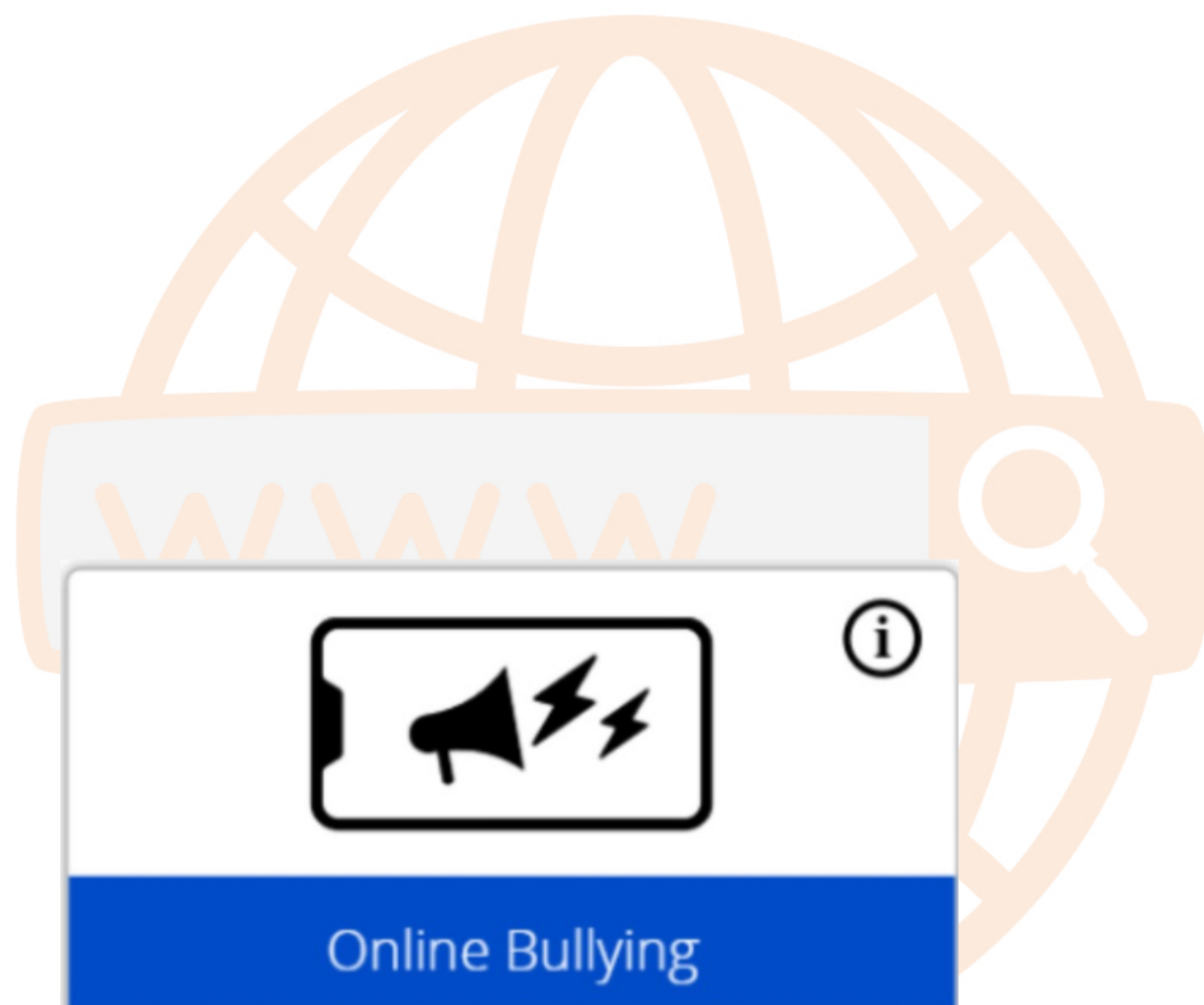
- Know and recognise when someone is upset, hurt or angry online.
- Digital citizens can describe ways people can be bullied through a range of media (e.g. image, video, text, chat).
- Digital citizens can explain why people need to think carefully about how content they post might affect others, their feelings and how it may affect how others feel about them (their reputation).

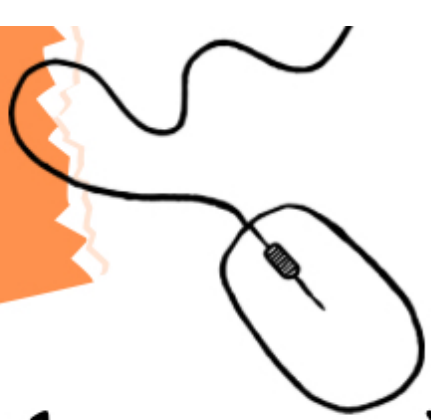
Year 5

- Know and recognise online bullying can be different to bullying in the physical world & can describe some of those differences.
- Know & describe how what one person perceives as playful joking & teasing (including banter) might be experienced by others as bullying.
- Know & explain how anyone can get help if they are being bullied online & identify when to tell a trusted adult.
- Digital citizens can identify a range of ways to report concerns & access support both in school and at home about online bullying.
- Digital citizens can explain how to block abusive users.
- Know and describe the helpline services which can help people experiencing bullying, and how to access them (e.g. Childline or The Mix).

Year 6

- Know and describe how to capture bullying content as evidence (e.g. screen-grab, URL, profile) to share with others who can help me.
- Digital citizens can explain how someone would report online bullying in different contexts.





EYFS

- Digital citizens can talk about how to use the internet as a way of finding information online.
- Digital citizens can identify devices they could use to access information on the internet.

Year 1

- Know/ understand that we can encounter a range of things online including things we like and don't like as well as things which are real or make believe / a joke.
- Know how to get help from a trusted adult if we see content that makes us feel sad, uncomfortable, worried or frightened.
- Digital citizens give simple examples of how to find information using digital technologies, e.g. search engines, voice activated searching.

Year 2

- Know and explain why some information they find online may not be real or true.
- Digital citizens can use simple keywords in search engines.
- Digital citizens can demonstrate how to navigate a simple webpage to get to information they need (e.g. home, forward, back buttons; links, tabs & sections).
- Digital citizens can explain what voice activated searching is & how it might be used, and know it is not a real person (e.g. Alexa, Google Now, Siri).
- Digital citizens can explain the difference between things that are imaginary, 'made up' or 'make believe' and things that are 'true' or 'real'.

Year 3

- Know and demonstrate how to use key phrases in search engines to gather accurate information online.
- Know and explain what autocomplete is and how to choose the best suggestion.
- Know and explain how the internet can be used to sell and buy things.
- Know and explain the difference between a 'belief', an 'opinion' and a 'fact' and give examples of how and where they might be shared online, e.g. in videos, memes, posts, news stories etc.
- Know and explain that not all opinions shared may be accepted as true or fair by others (e.g. monsters under the bed).
- Digital citizens can describe & demonstrate how we can get help from trusted adults if they see content that make them feel sad, uncomfortable, worried or frightened.

Year 4

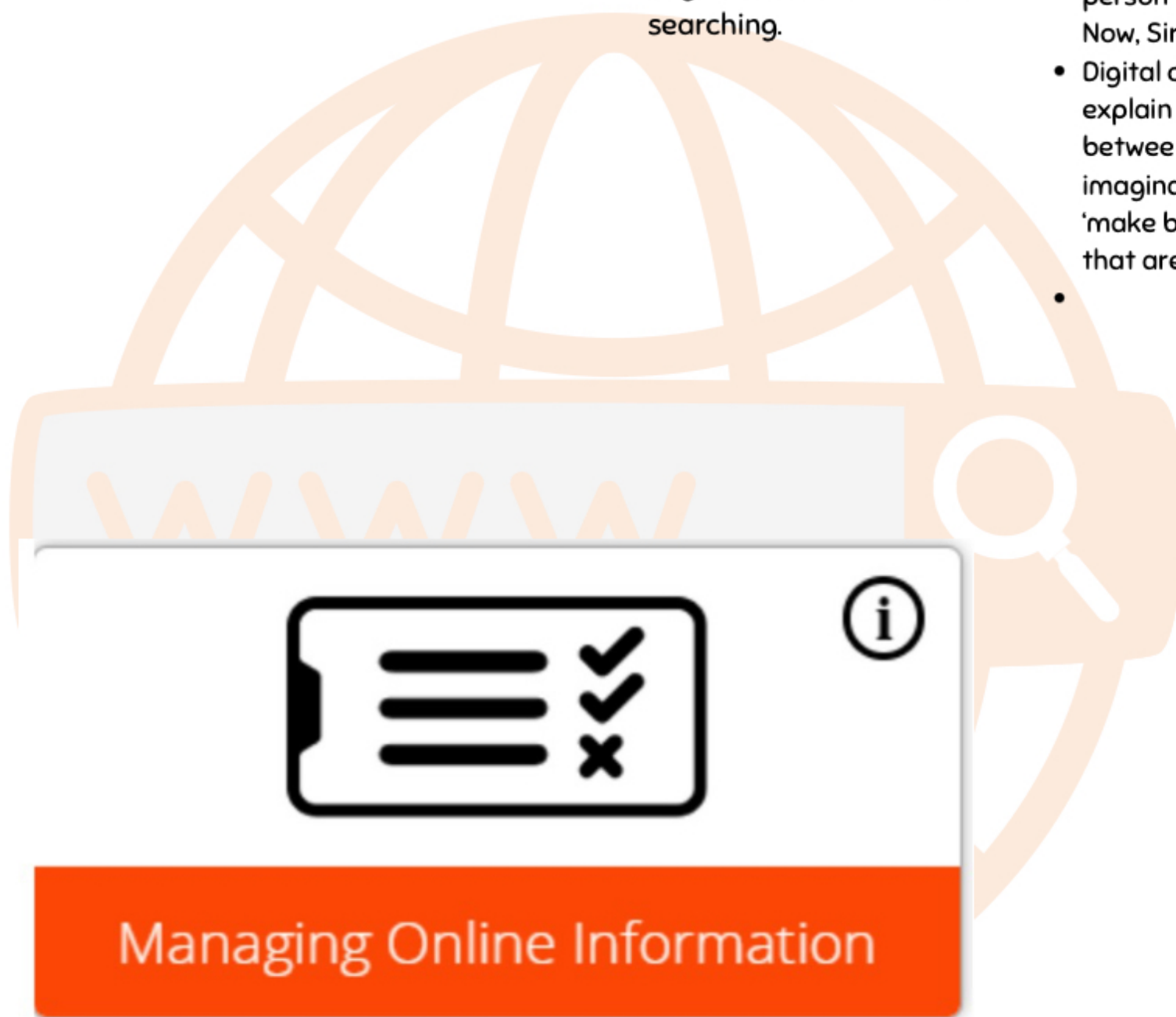
- Know and analyse information to make a judgement about probable accuracy and they understand why it is important to make my own decisions regarding content & that my decisions are respected by others.
- Know and describe how to search for information within a wide group of technologies & make a judgement about the probable accuracy (e.g. social media, image sites, video sites).
- Digital citizens can describe some of the methods used to encourage people to buy things online (e.g. advertising offers; in-app purchases, pop-ups) and can recognise some of these when they appear online.
- Digital citizens can explain why lots of people sharing the same opinions or beliefs online do not make those opinions or beliefs true.

Year 5

- Know and explain the benefits & limitations of using different types of search technologies e.g. voice-activation search engine. They can explain how some technology can limit the information they are presented with.
- Know & explain what is meant by 'using sceptical'; they can give examples of when & why it is important to be 'sceptical'.
- Know how to evaluate digital content & explain how to make choices about what is trustworthy e.g. differentiating between adverts and search results.
- Know & explain key concepts including: information, reviews, facts, opinion, belief, validity, reliability & evidence.
- Digital citizens can identify ways the internet can draw us to information for different agendas, e.g. website notifications, pop-ups, targeted ads.
- Digital citizens can describe ways of identifying when online content has been commercially sponsored or boosted, (e.g. by commercial companies or by vloggers, content creators, influencers).
- Digital citizens explain what is meant by the term 'stereotype', how 'Stereotypes' are amplified & reinforced online, & why accepting 'Stereotypes' may influence how people think about others.
- Digital citizens can describe how fake news may affect someone's emotions and behaviour, and explain why this may be harmful.
- Know and explain what is meant by a 'hoax'.
- Digital citizens can explain why someone would need to think carefully before they share.

Year 6

- Know and explain how search engines work and how results are selected and ranked.
- Know & explain how to use search technologies effectively.
- Know and describe how some online information can be opinion & offer examples.
- Know & explain how and why some people may present 'opinions' as 'facts', why the popularity of an opinion or the personalities of those promoting it does not necessarily make it true, fair or perhaps even legal.
- Digital citizens can demonstrate how to analyse & evaluate the validity of 'facts' & information & explain why using these strategies are important.
- Know and understand the concept of persuasive design & how it can be used to influence people's choices.
- Digital citizens can define the terms 'influence', 'manipulation' and 'persuasion' and explain how someone might encounter these online (e.g. advertising and 'ad targeting' and targeting for fake news).
- Digital citizens can explain how companies & news providers target people with online news stories they are more likely to engage with & how to recognise this.
- Digital citizens can describe the difference between online misinformation and dis-information.
- Know and explain why information that is on a large number of sites may still be inaccurate or untrue. Digital citizens can assess how this might happen (e.g. the sharing of misinformation or disinformation).
- Know how to identify, flag and report inappropriate content.



Progression in Knowledge and skills – Online & Digital Literacy



EYFS

- Digital citizens can identify rules that help keep us safe and healthy in and beyond the home when using technology.
- Know and give some simple examples of these rules.

Year 1

- Know and explain rules to keep themselves safe when using technology both in and beyond the home.

Year 2

- Know and explain simple guidance for using technology in different environments & settings e.g. accessing online technologies in public places & the home environment.
- Digital citizens are able to say how those rules/ guides can help anyone accessing online technologies.

Year 3

- Know and explain why spending too much time using technology can sometimes have a negative impact on anyone.
- Digital citizens can give some examples of both positive & negative activities where it is easy to spend a lot of time engaged.
- Know and explain why some online activities have age restrictions, why it is important to follow them & know who I can talk to if others pressure me to watch or do something online that makes me feel uncomfortable (e.g. age restricted gaming or web sites).

Year 4

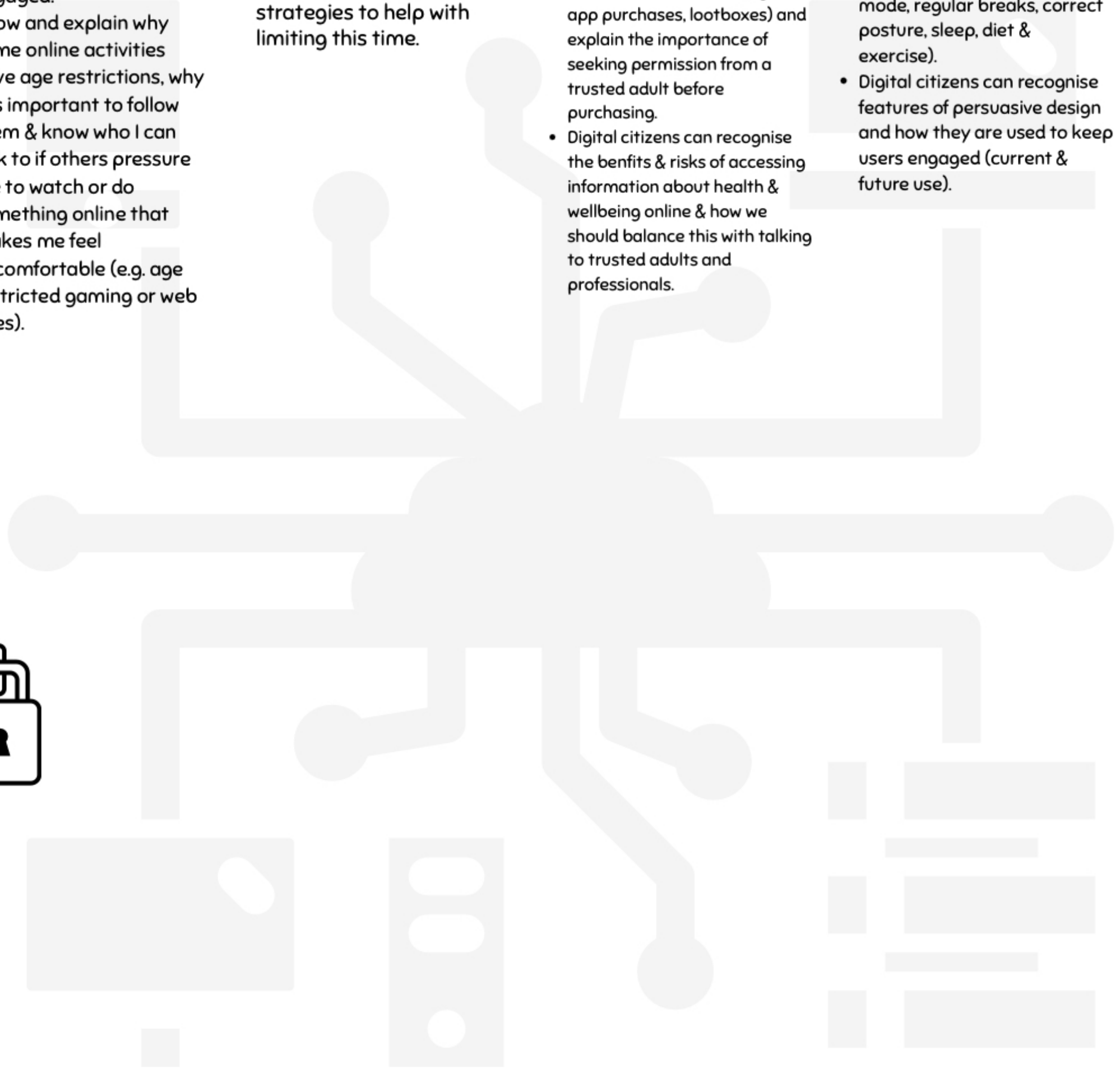
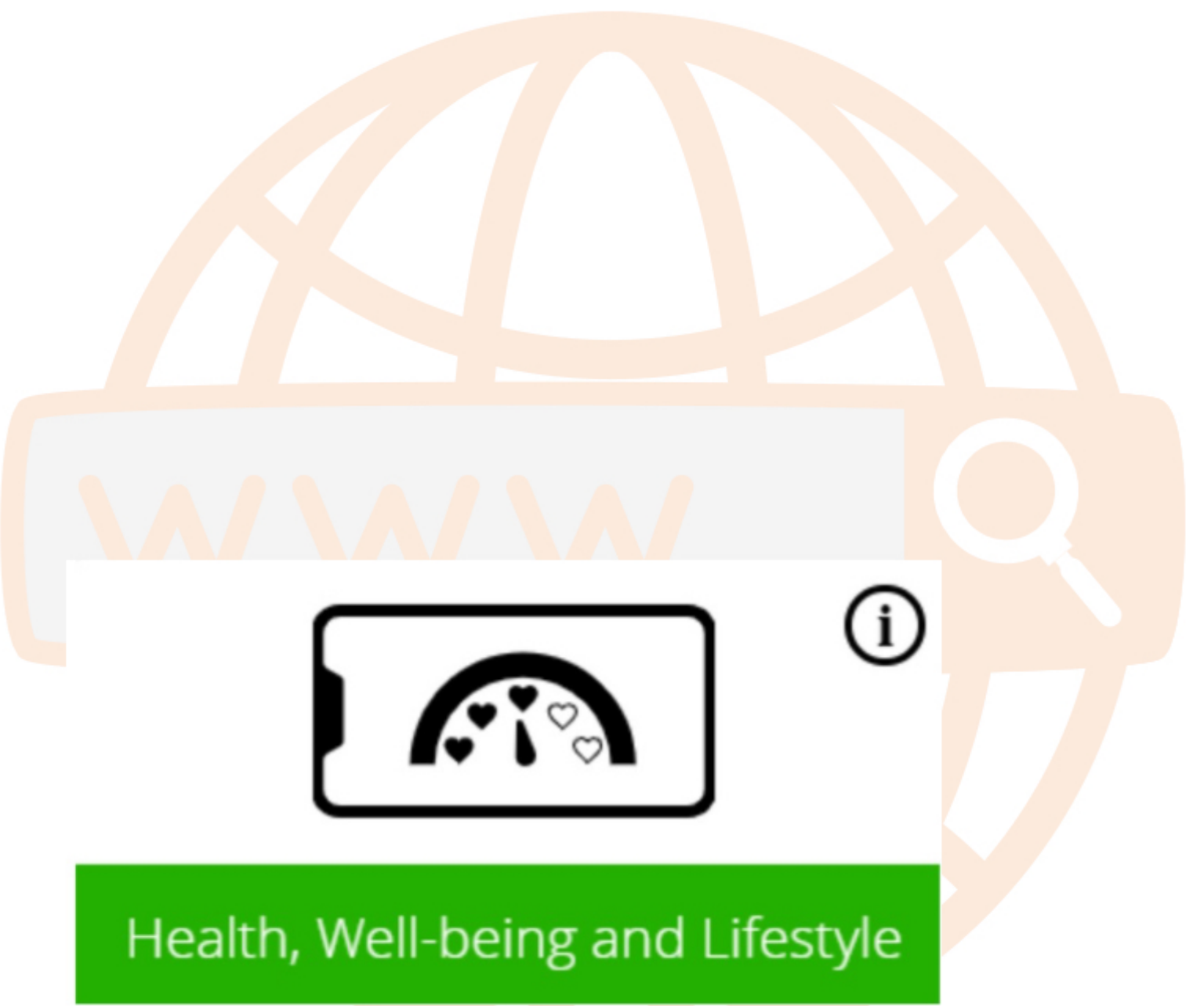
- Know and explain how using technology can be a distraction from other things, in both a positive & negative way.
- Digital citizens can identify times or situations when someone may need to limit the amount of time they use technology e.g. digital citizens can suggest strategies to help with limiting this time.

Year 5

- Know and explain describe ways technology can affect health & well-being both positively (e.g. mindfulness apps) and negatively.
- Know and describe some strategies, tips or advice to promote health & wellbeing with regards to technology.
- Digital citizens can explain how and why some apps & games may request or take payment for additional content (e.g. in-app purchases, lootboxes) and explain the importance of seeking permission from a trusted adult before purchasing.
- Digital citizens can recognise the benefits & risks of accessing information about health & wellbeing online & how we should balance this with talking to trusted adults and professionals.

Year 6

- Know and describe common systems that regulate age-related content (e.g. PEGI, BBFC, parental warnings) and describe their purpose.
- Digital citizens can recognise and discuss the pressures that technology can place on someone and how/ when they could manage this.
- Digital citizens can assess & action different strategies to limit the impact of technology on health (e.g. night-shift mode, regular breaks, correct posture, sleep, diet & exercise).
- Digital citizens can recognise features of persuasive design and how they are used to keep users engaged (current & future use).



Progression in Knowledge and skills – Online & Digital Literacy



EYFS

- Know some simple examples of my personal information (e.g. name, address, birthday, age, location).
- Know and describe who would be trustworthy to share this information with and explain why they are trusted.

Year 1

- Know and explain that passwords are used to protect information, accounts and devices.
- Digital citizens can recognise more detailed examples of information that is personal to someone (e.g. where someone lives and goes to school, family names).
- Digital citizens can explain why it is important to always ask a trusted adult before sharing any personal information online, belonging to themselves or others.

Year 2

- Know and explain how passwords can be used to protect information, accounts and devices.
- Know, explain and give examples of what is meant by 'private' and 'keeping things private'.
- Digital citizens can describe and explain some rules for keeping personal information private (e.g. creating & protecting passwords).
- Digital citizens can explain how some people may have devices in their homes connected to the internet and give examples (e.g. lights, fridges, toys, televisions).

Year 3

- Know and describe simple strategies for creating & keeping passwords private.
- Digital citizens can give reasons why someone should only share information with people they choose to and can trust. They can explain that if they are not sure or feel pressured then they should tell a trusted adult.
- Digital citizens can describe how connected devices can collect and share anyone's information with others.

Year 4

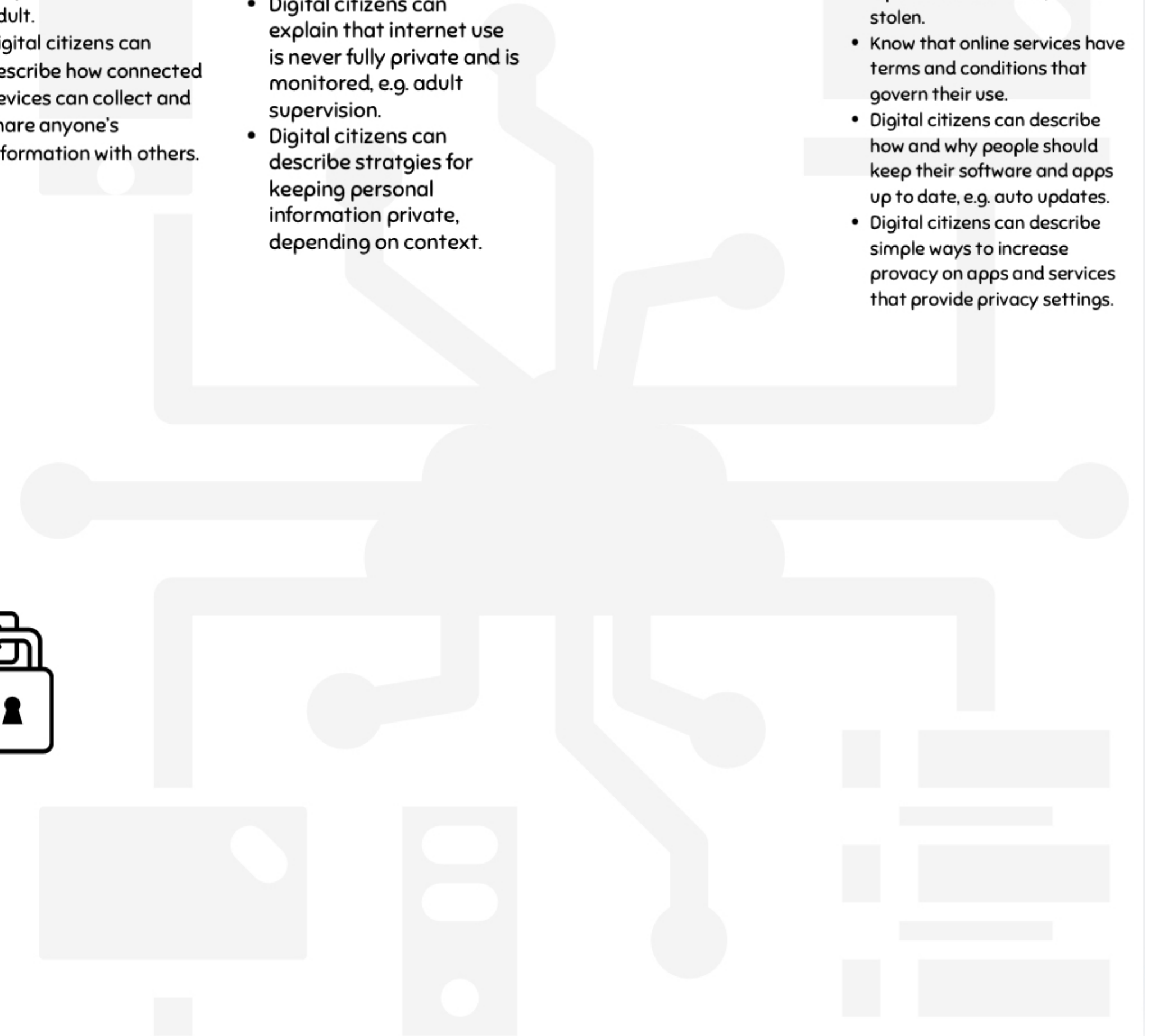
- Know what the digital age of consent is and the impact this has on online service asking for consent.
- Digital citizens can describe how some online services may seek consent to store information about them; Know how to respond appropriately & who they can ask if they are not sure.
- Digital citizens can explain that internet use is never fully private and is monitored, e.g. adult supervision.
- Digital citizens can describe strategies for keeping personal information private, depending on context.

Year 5

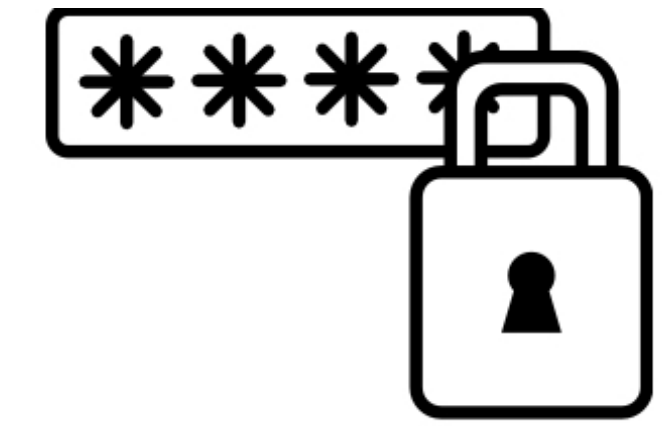
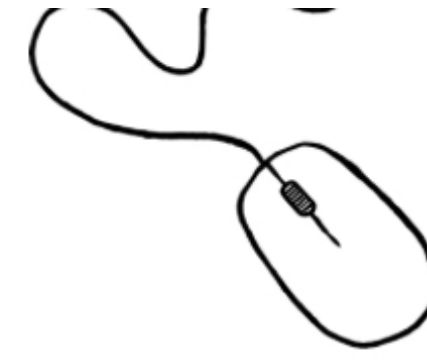
- Know and explain what a strong password is and demonstrate how to create one.
- Know and explain how many free apps or services may read & share private information (e.g. friends, contacts, likes, images, videos, voice messages, geolocation) with others.
- Digital citizens can explain what app permissions are and can give some examples.

Year 6

- Know and describe effective ways people can manage passwords (e.g. storing them securely or saving them in the browser).
- Know and describe ways in which some online content targets people to gain money or information illegally; know and describe strategies to help them identify such content (e.g. scams, phishing).
- Know and explain what to do if a password is shared, lost or stolen.
- Know that online services have terms and conditions that govern their use.
- Digital citizens can describe how and why people should keep their software and apps up to date, e.g. auto updates.
- Digital citizens can describe simple ways to increase privacy on apps and services that provide privacy settings.



Progression in Knowledge and skills – Computer Systems and Networks (Autumn 1)



EYFS

- Know where the on and off button is on an iPad.
- Digital leaders begin to use the home button.
- Digital leaders open and close apps using the home button.
- Know how to adjust the volume.
- Know how to search the iPad using teacher instruction.
- Know how to take good, quality pictures.
- Digital citizens have an awareness of different technology around the home and school, and it's purpose in everyday life.

Year 1

- Know the term technology and classify whether something is technology or not.
- Know that technology is used within their school and classroom.
- Know that technology helps us in different ways.
- Know how to click and drag objects on a screen.
- Know how to save and upload work.
- Know and can suggest rules to keep us safe and healthy when using technology (in school and at home).
- Digital leaders are beginning to understand the Acceptable usage Policy

Year 2

- Know different types of computers and their uses.
- Know different examples of IT within the school and the wider world.
- Digital leaders recognise where IT devices are used, how they work together and how they benefit us e.g. shop tills, barcode scanner and receipt machine.
- Know how our Acceptable usage policy helps to keep us safe.
- Digital leaders explore choices that are made when using information technology.

Year 3

- Know how a digital device works and can explain how they function including input, process and output.
- Digital leaders can input and output devices.
- Digital leaders input and output machines.
- Digital leaders are beginning to recognise similarities and differences between using digital devices and non-digital tools.
- Digital leaders can compare their own digitally drawn picture to their own non-digitally drawn picture.
- Know how digital devices can be connected.
- Know that networks are made up of a number of devices through unplugged role-play activities.
- Know how information can be passed between devices.
- Know the physical components of a network, including the role of a switch, server and wireless access point in a network.
- Digital leaders investigate networks and wireless devices within the school.
- Know the benefits the of computer networks.

Year 4

- Know, describe and recognise how networks physically connect to other networks (including network devices).
- Know why a network needs protecting.
- Digital leaders begin to explain that the internet provides many services including knowledge that the WWW contains both websites and web pages.
- Know the types of media that can be shared, where websites are stored and where to access them.
- Digital leaders use internet services provided to create their own online content.
- Know that websites and their content are created by people and know who owns the content.
- Know that there are rules to protect the content created.
- Digital leaders can investigate the reliability of internet content.

Year 5

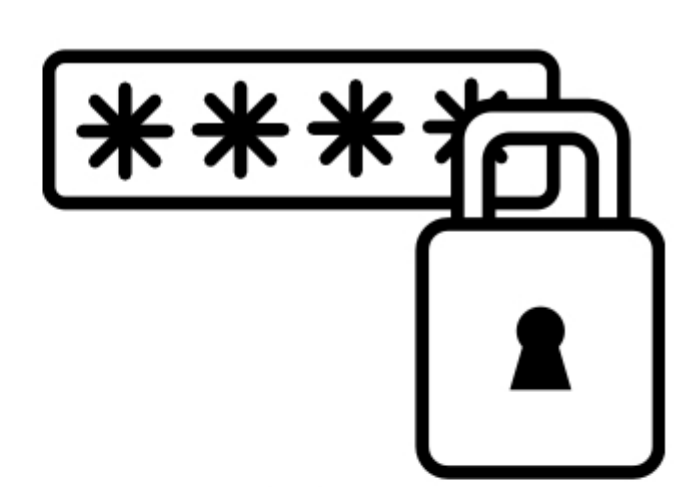
- Know that computers can be connected together to form systems.
- Know the roles of computer systems in our lives e.g. pedestrian crossings, parcel collection points.
- Digital leaders explore tasks which are managed by computing systems/humans
- Digital leaders explore with search engines, starting to describe how search engines select results.
- Know how search results are ranked, begin to use this information to design their own webpage and explain how search engines follow the rule of ranking.
- Know the role of web crawlers in creating an index.
- Digital leaders explore why the order of results is important, how they can be influenced and the limitations of a search engine.
- Know how search engines make money.

Year 6

- Know the importance of internet addresses.
- Know how data is transferred across the internet and identify the main parts of a data packet
- Know how sharing information online can help people work together and how different medias and files are shared.
- Digital leaders evaluate a variety of ways in which we can work together online, including recognising how working together on the internet can be public or private.
- Digital leaders can identify the variety of methods of communication, which use the internet, and identify the best method for a variety of particular purposes.
- Digital leaders compare different methods of communication.
- Know what information is appropriate to be shared online and what should be kept private.



Progression in Knowledge and skills - Creating Media (Autumn 2)



EYFS

- Digital citizens use technology for a purpose including ipads and cameras.

Year 1

- Digital citizens can explain which tools are used when drawing lines on a screen.
- Digital citizens use paint tools to draw pictures.
- Digital citizens use tools effectively (shapes/ lines).
- Digital citizens recreate the work of various artists using shapes and tools.
- Know that different paint tools do different jobs.
- Know that art can be recreated using paint tools.
- Digital citizens can make colour and brush sizes choices.
- Know that different size brushes create different outcomes.
- Know the difference between painting on a computer and painting on paper.
- Digital citizens explore the difference between painting on paper and on computer.
- Digital citizens can articulate their preference to painting on a computer or paper.

Year 2

- Know what devices can be used to take photographs.
- Know that ipads can take photographs.
- know how to take a photograph in landscape and portrait format.
- Digital citizens explore the difference in the outcome of portrait and landscape photos.
- Digital citizens can articulate reasons why photographs are of a good quality and how to improve a photograph.
- Digital citizens experiment with different light sources
- know that images can be manipulated using filters and coloured tints.
- Digital citizens investigate which photographs are real and why.

Year 3

- Know how an animation flip book works.
- Digital citizens create an effective flipbook style animation using a drawn sequence of pictures.
- Know that a flipbook is created using drawings.
- Digital citizens will make predictions about the outcome of a flipbook.
- Know that stop-frame animation uses a still image to create a moving image.
- Know that a frame is the space which each drawing/ object is captured.
- Digital citizens use onion skinning to make small changes between frames.
- Digital citizens evaluate the quality of their animation and of their peers.
- Digital citizens add media to their animation and know why they have added it.
- Know ways to make their animation better.
- Digital citizens will improve their animation based on feedback from their peers.

Year 4

- Digital citizens will use iPads to record audio.
- Know that the person who records the sound can say who is allowed to use it.
- Know input and output devices used to record and play sound.
- Digital citizens will explore what sounds can be added to a podcast.
- Digital citizens use sound waves view to trim their recordings.
- Digital citizens re-record their voice to improve their recordings.
- Know sounds can be combined together to make a podcast.
- Digital citizens use imovie to create a podcast.
- Digital citizens can save their podcast so that it can be editable.
- Digital citizens plan their podcast using appropriate content.
- Digital citizens record, review and improve their podcast using appropriate edits.
- Digital citizens identify strengths of an audio recording and can suggest improvements.

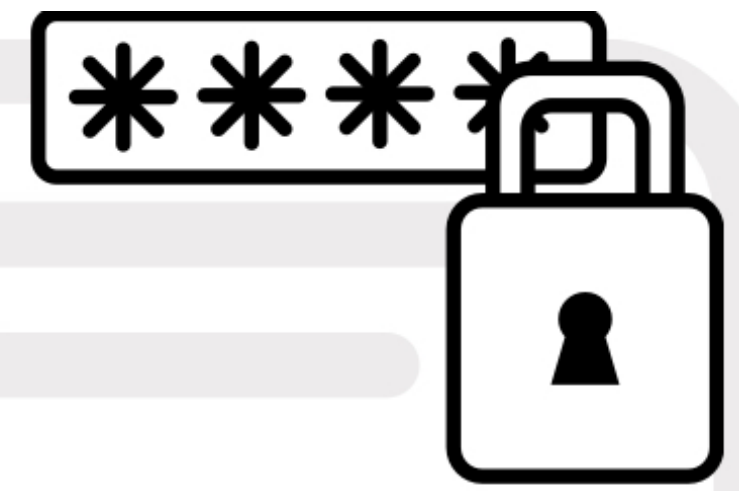
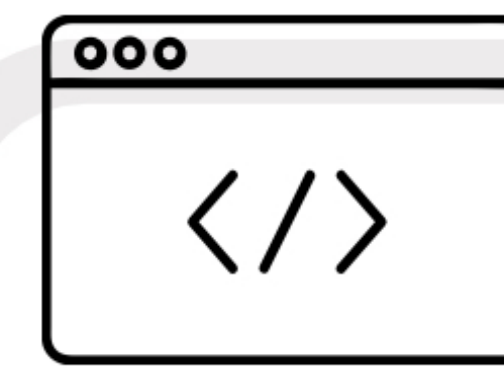
Year 5

- Know that video is a visual media format.
- Digital citizens identify features of a video (play, stop, rewind, pause, fast-forward).
- Know that different camera angles have different effects (long-shot, close up, side-by-side).
- Digital citizens recognise camera angles in a video.
- Digital citizens experiment with using a microphone at different distances.
- Digital citizens use a range of filming techniques and review how effective they are.
- Digital citizens suggest filming techniques for specific purposes (close up shot of an object).
- Know how to create and save video content in imovie.
- Digital citizens use a storyboard to outlines scenes for their video.
- Digital citizens explore tools to use in their video (slow motion, snipping tool, changing speed, sound effects).
- Know that their choices when making a video, will impact on the quality of the final outcome.
- Digital citizens evaluate their video and share opinions.

Year 6

- Digital citizens explore websites.
- Know that websites are made up of different types of media (images, videos).
- Know that websites are written in HTML.
- Know the common features of a webpage (search bar, tabs, hyperlinks).
- Digital citizens create a webpage made for a specific purpose.
- Know what copyright is.
- Know that they should use copyright free images.
- Know what fair use is.
- Digital citizens add their own content to their website, previewing what is it like.
- Digital citizens evaluate their website, suggest and make edits.
- know that a navigation pathway will take you back to where you have previously been.
- Digital citizens create hyperlinks to link to others work.
- Know the implications of linking content owned by others.





EYFS

- Digital citizens use simple programmable toys for a purpose e.g. Bee Bots
- Digital citizens explore technological toys with buttons, flaps, mechanisms and moving toys.

Year 1

- Know the difference between planning out a sequence and encoding that sequence into appropriate language.
- Know how to read and write in shorthand code.
- Know how to write precise instructions.
- Digital citizens explore translating instructions into given symbols.
- Know how to stack code blocks together in a linear sequence.
- Know and understanding of sequence and concept
- Digital citizens explore programming and debugging skills.
- Digital citizens can build computer programs from written instructions.
- Digital citizens use critical thinking skills by identifying repetition and determining how to apply this to repeat loop commands.

Year 2

- Digital citizens use knowledge of programming to unplugged activities.
- Know the term algorithm.
- Know sequential algorithms to move sprites
- Digital citizens use knowledge of programming and debugging skills.
- Know how to use stacking code blocks together in a linear sequence.
- Digital citizens explore how to reorganise and translate movements into a series of commands.
- Know how to apply programming concepts (sequences and loops) in codes they create
- Digital citizens can implement loops and add instructions to existing loops.

Year 3

- Know that the term Bug is an error in a program and understand its importance within Computer Science.
- Know how to identify and locate bugs in a program.
- Digital citizens explore and create instructions knowing the importance of precision.
- Know the importance of defining an algorithm.
- Digital citizens can create sequential algorithms that move sprites within mazes.
- Digital citizens use their knowledge of sequencing, understanding how to stack code blocks in a linear sequence to move starlight, turn left and turn right.
- Know that programming is putting instructions together in a specific order, so that a machine can read them.
- Know how a computer reads/navigates instructions.
- Know how to break complex instructions
- Digital citizens use sequence blocks linked to pixels and angles.
- Digital citizens identify repeated patterns in code and begin to replace/simplify these patterns with loops.
- Digital citizens instructions which use loops.

Year 4

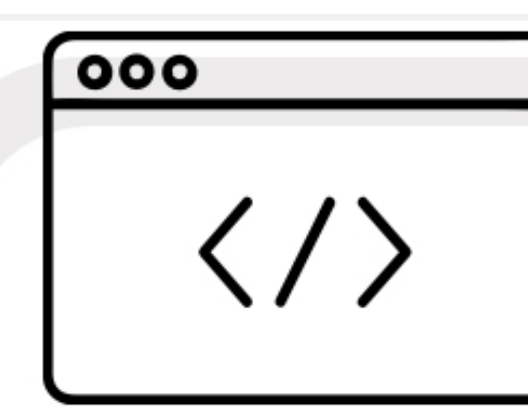
- Know how to modify existing programs.
- Digital citizens can reframe a sequence of steps as an encoded program.
- Digital citizens understand the constraints of translating problems from human language to machine language.
- Digital citizens can modifying programs which solve errors.
- Know the importance of persistence when debugging.
- Digital citizens analyse peers work to verify the coding created.
- Digital citizens use knowledge of coding by reading given codes, identify bugs and the problem this will cause in a program.
- Know how to understand events and how programmers use them within video games.

Year 5

- Know that a sprite is a character or object, that can be moved or changed.
- Digital citizens use knowledge of code learnt so far to program.
- Know how to create new sprites, costumes and behaviours.
- Digital citizens use knowledge of events by creating codes which change a sprites costume/locations.
- Know which information is personal and which is private and identify what information about themselves is safe to share online.
- Know the benefits of using loop structures instead of repetition.
- Know that there is a difference between commands, by using nested loops.
- Digital citizens know the difference between a loop and a nested loop.
- Digital citizens explain when loops, nested loops or no loop is needed within their code.

Year 6

- Know the importance of the user, when designing.
- Know the role of computers and technology in their lives, focusing on how apps and tools give users choices.
- Know that a sprite is a character or object, that can be moved or changed.
- Digital citizens create animations using sprites and assign them costumes and behaviours.
- Digital citizens create programs that respond to timed events and user inputs.
- Digital citizens recognise how to program solutions to problems.
- Know how computers take and store input from a user.
- Digital citizens assign variable of a value.
- Digital citizens explore the relationship between how a variable is defined, stored and retrieved.



EYFS

- Digital citizens use simple programmable toys for a purpose e.g. Bee Bots
- Digital citizens explore technological toys with buttons, flaps, mechanisms and moving toys.

Year 1

- Know the benefits of using loops in coding.
- Digital citizens construct programs using repeated areas of code
- Digital citizens will break down instructions into the smallest possible sequence
- Know how to use loops to create patterns
- Digital Citizens will create a program that draws complex shapes through repeating sequences
- know what an event is and distinguish between events and actions
- Digital Citizens will use events to create an animated game where characters move and backgrounds change

Year 2

- know if a program is efficient
- will effectively use a 'repeat' block
- know how events are used in programming
- digital citizens will effectively practice differentiating pre-defined actions and event-driven ones
- Know how to create an animated game
- know how to overcome obstacles such as time constraints and bugs

Year 3

- Know how to implement loops in blockly code
- digital citizens will add instructions into existing loops
- Know how to use events to make a game
- Digital citizens will use events to make characters move, make noises and react to obstacles
- know that computers were created to help process data
- digital citizens will collect and analyse a simple set of data
- digital citizens will make comparisons between data
- know how computers translate sentences into binary
- digital citizens will write code, decode binary and encode letter

Year 4

- Know that a nested loop is a pattern within a pattern
- know how conditionals work
- digital citizens will determine whether a conditional is met based on criteria
- digital citizens will practice using conditionals in their program
- digital citizens will translate spoken language conditional statements into a programme
- know how condition-based loops work
- digital citizens will use a 'while' loop to create programs
- know how an 'until' loop works
- digital citizens will build programs that have characters repeat actions 'until' they reach a desired point

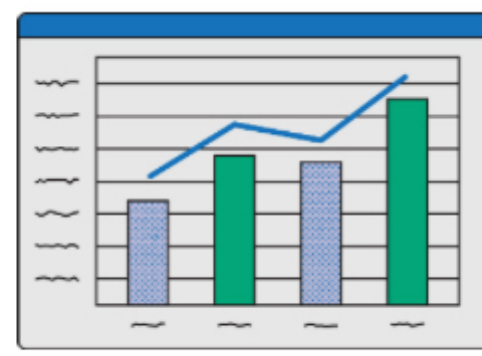
Year 5

- Know how a function can be helpful
- digital citizens will recognise reusable patterns and be able to incorporate named blocks to call pre-defined functions
- digital citizens will use pre-determined functions to complete commonly repeated tasks
- know how 'if/else' statements work
- know how to use conditionals with function
- digital citizens will describe how compromise can help keep a project on track

Year 6

- digital citizens will use variables within prompts and to hold words and phrases
- know how to utilise variables to program a group of sprites
- digital citizens will create programs where sprites are created in groups and programmed individually with events
- know how to use variables to track a value that changes overtime
- know that variables store data that can be retrieved
- Know how to modify the value stored in a variable
- digital citizens will use multiple sprites which are controlled individually and variables to track the player's score
- digital citizens will articulate the design process and how it helped to shape a finished project
- know system limitations that can affect project design

Progression in Knowledge and skills – Data & Information (Summer 1)



EYFS

- Digital citizens use technology in their everyday

Year 1

- Know that objects have different labels and can be put in groups
- Digital citizens count and group a group of objects
- Digital leaders describe an object and the property of an object
- Digital leaders can classify objects based on their properties and choose how to group different objects by properties
- Digital leaders compare their group objects and record what they have found, sharing what they have found with their peers

Year 2

- Know that tally chart records data effectively for easy counting
- Digital leaders organise their own tally charts to organise data
- Digital leaders create pictograms manually and then on a computer.
- Know that you can view data in different formats
- Know that a tally count can be represented as a total.
- Know how to collect data and the importance of this.
- Digital leaders present findings in the form of a pictogram using a common attribute.
- Digital leaders can answer questions based on their pictograms using mathematical vocabulary.
- Know that people can be described by attributes.
- Digital leaders draw conclusions and share findings.
- Know that there are other ways to present data than using tally charts and pictograms.
- Digital leaders consider whether it is always ok to share data and when it is not ok.

Year 3

- Know what a yes/ no question is.
- Digital leaders explore questions with yes/ no answers.
- Digital leaders two groups of objects separated by one attribute.
- Digital leaders create yes/no questions.
- Digital leaders can arrange objects into a tree structure.
- Know how to group and order objects in a branching database structure.
- Digital leaders test their branching database to see how effective it is.
- Know how to create a well-structured database.
- Digital leaders compare the efficiency of branching databased and can explain why questions need to be in a specific order.
- Digital leaders can plan a branching database by creating a physical representation of one before creating a digital branching database.
- Digital leaders work with a partner to test their database, considering real-world uses,

Year 4

- Know that data can be collected.
- Know how data can be collected.
- Digital leaders consider how data is collected over time.
- Digital leaders reflect on the importance of collecting the right amount of data to answer questions.
- Know that data loggers is an example of how data is collected automatically.
- Know how data loggers work.
- Know that sensors collect data.
- Digital leaders explore how sensors can be connected to data loggers while not attached to a computer.
- Digital leaders identify the intervals used to collect data and can talk about data that has been captured.
- Digital leaders find out key information from existing files and analyse a data file.
- Digital leaders use data loggers to collect data and can draw conclusions from data collected.

Year 5

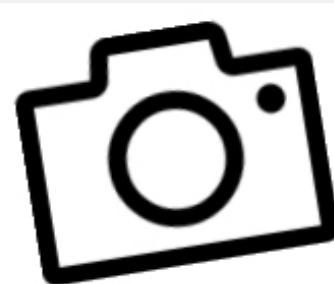
- Know how to create a database using cards.
- Digital leaders explain how information can be recorded, and can order, sort and group data cards.
- Know that a database consists of 'record' and that each record contains 'fields'.
- Digital leaders create a paper version of a record card database and then digitally.
- Digital leaders use grouping and sorting to answer questions about data.
- Digital leaders can use advanced techniques to search for more than one fiend using a computer database.
- Know what makes a useful chart and how charts can be created to compare data.
- Digital leaders create charts from their data in order to answer questions about it.
- Digital leaders use real-life databases to ask questions.
- Digital leaders explore real-life databased in the role of a travel agent and present findings.

Year 6

- Know how data can be structured in a table.
- Digital leaders will collect and organise data in a format of their choice.
- Digital leaders will input data into a spreadsheet.
- Know the structure of a spreadsheet
- Know that the type of data in cell is important.
- Digital leaders use formulas to produce calculated data.
- Digital leaders explore how changing inputs changes outputs.
- Know the importance of creating formulas.
- Digital leaders calculate data using different operations.
- Digital leaders plan and calculate the cost of an event using a spreadsheet.
- Digital leaders create charts in Google sheets and can evaluate results from their charts to answer questions.



Progression in Knowledge and skills – Creating Media (Summer 2)



EYFS

- Digital citizens use technology for a purpose including ipads and cameras.

Year 1

- Digital Citizens can open a word processor (Word).
- Digital citizens can enter text into a computer, use back space to remove text and use letter/number and space keys.
- Digital citizens can identify the toolbar and identify bold, italic, underline.
- Digital citizens can type capital letters, change the font and select all of the text by clicking and dragging.
- Digital citizens can articulate if their changes have improved their writing e.g. bold, italic, font.
- Digital citizens can use undo to remove changes.
- Digital citizens can explore the differences between typing and writing on paper.
- Digital citizens can explain their preferred method to use in different situations.
- Know the position of keys on a keyboard.
- Know the names of tools (bold, italic, underline, font).

Year 2

- Know that music can be used in different ways to express emotions and to trigger their imaginations.
- Digital citizens experimnt with the pitch of notes to create their own music.
- Digital citizens can describe music using adjectives.
- Digital citizens can identify simple differences in pieces of music (compare two pierces of music from The Planets by Gustav Holst.
- Digital citizens explore rhythm and create patterns by following a rhythm pattern.
- Digital leaders will use untuned percussion instruments and computers to hear the different rhythm patterns that they create.
- Know that there are patterns in music.
- Know that music is a sequence of notes.
- Digital citizens explain how their music can be played in different ways.
- Digital citizens refine their musical pattern on a computer.
- Digital citizens can create a piece of music using an object as inspiration,
- Digital citizens define a rhythm and create a musical pattern to accompany it.
- Know how to retrieve their own work, make improvements and share.

Year 3

- Digital citizens can give advantages and disadvantages of using text, images, or both, to communicate messages.
- Digital citizens compare the difference between text & images.
- Digital citizens can use the return, backspace and shift keys to use punctuation effectively.
- Digital citizens choose the best locations for their content and can make changes to it after it has been added.
- Digital citizens create their own magazine template on Adobe.
- Digital citizens can add images from within the search facility in Adobe spark.
- Digital citizens explore page layouts and discuss the purpose of them.
- Digital citizens explore how desktop publishin gis used in the wider world and discuss the benefits of using desktop publishing applications.
- Know what desktop publishing is.
- Know the different ways information can be laid out on a page.
- Know the term page orientation, templates and place holders.
- Know what 'text' and images are.
- Know how to make careful choices regarding font size and colour.

Year 4

- Digital citizens explore when they need to rotate and crop an image, knowing how to use an image editor to make these changes.
- Digital citizens can discuss image composition.
- Digital citizens explore the effect that different colours and filters have on an image.
- Digital citizens choose effects to fit a scenario and explain how they made their choices.
- Digital citizens edit images using different effects to suit different scenarios.
- Digital citizens explore how parts of a photo can be removed or duplicated using cloning.
- Digital citizens consider when it is necessary to edit photographs in this way.
- Digital citizens use a range of tools to copy between images.
- Digital citizens plan their own image and review them against a given criteria, making changes based on their review.
- Know how to select and copy part of an image.
- Know why photos might be edited.
- Know how the cloning tool changes the composition of a photo and photo retouching.
- Know the concept 'editing'.

Year 5

- Know that a vector drawing is made up of simple shapes and lines.
- Digital citizens use the main drawing tools in 'Sketches School'. App to create their own vector drawings.
- Digital citizens explore how vector drawings differ from paper base drawings.
- Digital citizens create their own vector drawing by moving, re-sizing, rotating and changing the colours of a selection of objects.
- Digital citizens use the 'zoom' tool to add detail to their work.
- Digital citizens will use tools to modify objects to create a new image.
- Digital citizens group multiple objects to make them easier to work with.
- Digital citizens compare vector drawings to free hand paint program drawings.
- Know how layers are used in vector drawing and how each object is built on a new layer. These layers can be moved forwards & backwards to create effective vector drawings.
- Know how grids and re-size handles can improve the consistency of their drawings.
- Know that shapes are used to make a vector drawing.
- Know that each element of a vector drawing is called an 'object'.

Year 6

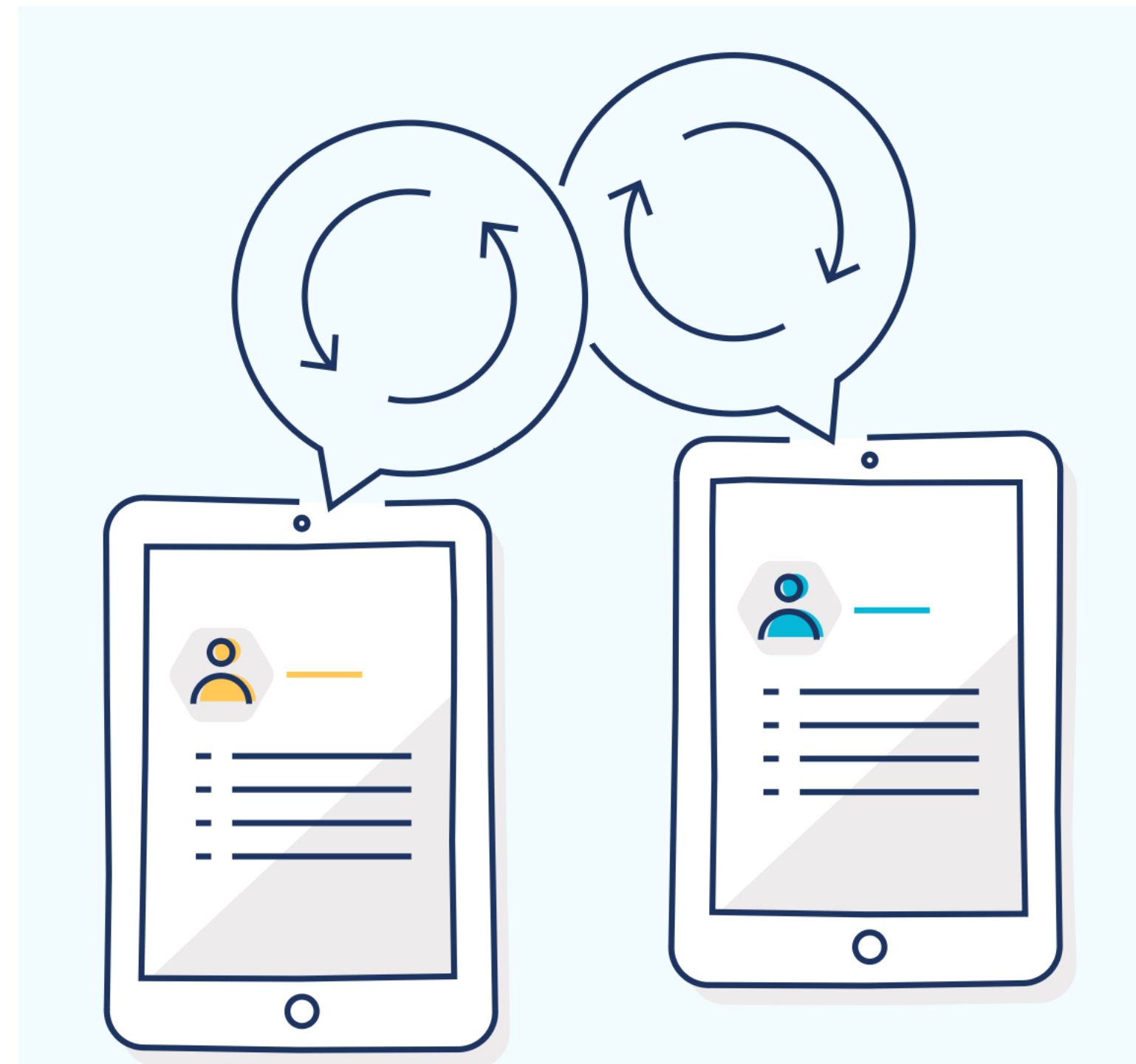
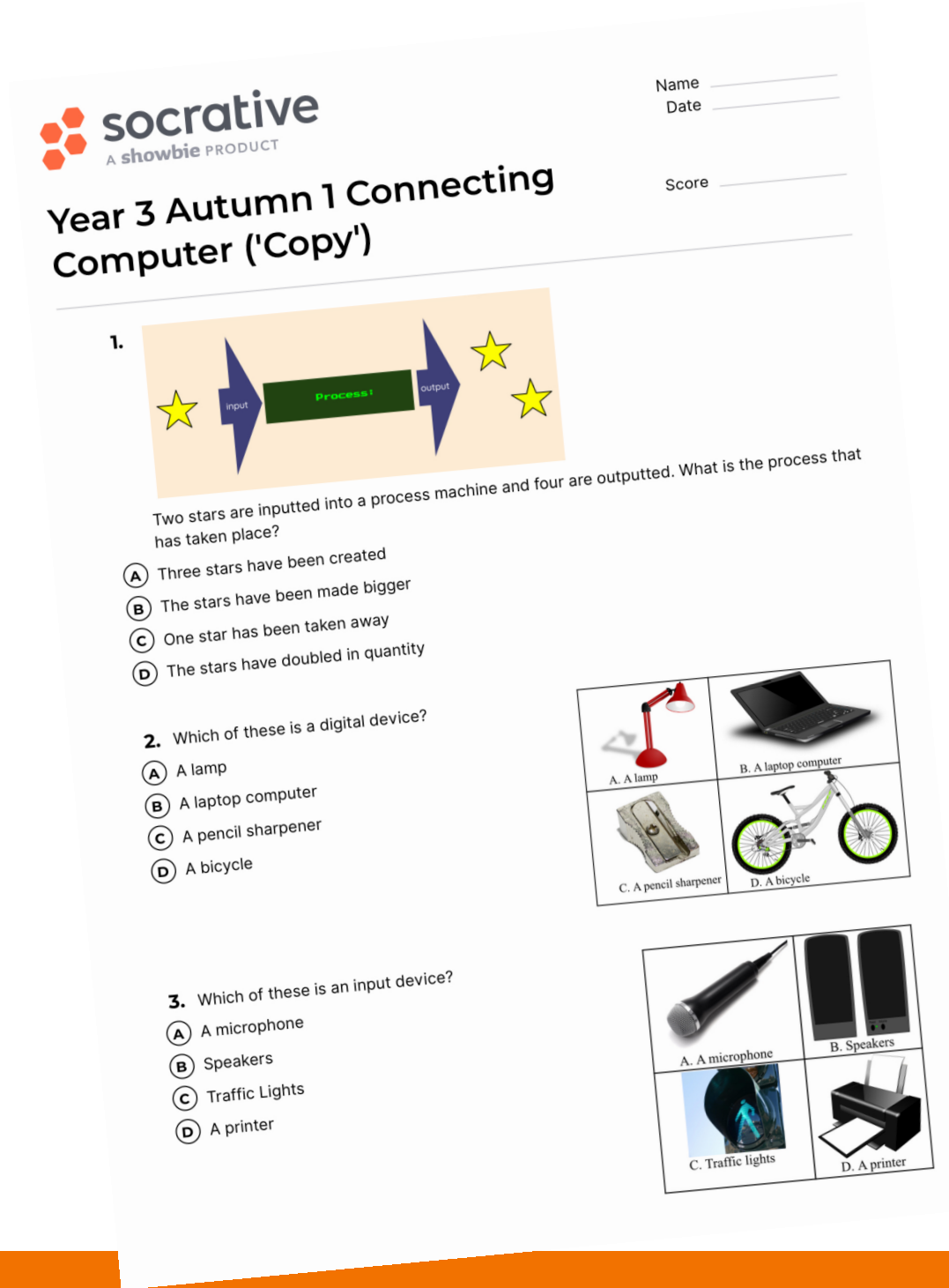
- Know that 3D modelling is creating a range of 3D shapes that they can select and move.
- Know how to re-colour 3D objects.
- Know that they can accurately resize and move shapes using the dimensions.
- Know how computer based 3D design is used in architecture to plan buildings.
- Digital citizens 'explode' 3D models of buildings to see what shapes they are composed of.
- Digital citizens plan and create a 3D model based on their design.
- Digital citizens evaluate their model and that of a peer, before modifying their own model to improve it.
- Digital citizens explore shapes from a variety of views within 3D space.
- Digital citizens manipulate 3D objects digitally.
- Digital citizens resize objects in one, two and three dimensions.
- Digital citizens explore the manipulation of digital 3D objects.
- Digital citizens rotate objects in 3dimensions, duplicate objects, and then use grouping and ungrouping to manipulate objects.
- Digital citizens create own 3D name badge.
- Digital citizens consider the practicality of 3D printing of the objects they have made.

Assessment

A range of assessment opportunities are planned to enable all digital citizens to demonstrate their knowledge and skills across the computing curriculum. Assessment information is effectively used to enhance learning and teaching and identify next steps for learning and teaching.



Computing Assessment Journey



Our digital citizens will demonstrate their knowledge and skills through Socrative quizzes and application within lessons.

Low stakes quizzing act as a regular retrieval practise, enabling learners to commit learning to their long term memory, reducing cognitive load and allowing for more content to be learned.

