

OBS COMPUTING & IT PROGRESSION



KEY SKILLS:

DIGITAL LITERACY INCLUDING ONLINE SAFETY

INFORMATION TECHNOLOGY AND SKILLS

COMPUTER SCIENCE AND COMPUTATIONAL THINKING

EARLY LEARNING GOALS – Taken from EYFS Curriculum 2012

Early Learning Goal Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes.

At Old Basford School we use Development Matters, Birth to Five Matters and the Early Learning Goals as guidance to support the carefully planned curriculum we have designed and created especially for the children in our school community. These documents provide an overview of how children learn and develop and they guide our team to make informed decisions based on what each individual child needs to learn and be able to do next.

Understanding the World – Technology (2012 Curriculum)

In the new Early Years curriculum (2021), Technology has been removed, however, at Old Basford School we feel that as technology is ever evolving and is a large part of everyday life; therefore, the children will still benefit from accessing technology through our teaching and continuous provision.

Continuous Provision

In continuous provision, children will: have access to a range of technology including cameras, iPads and BeeBots to explore how things work. They will encounter resources within their role play to represent technological items that are used within the home i.e. microwave, TV, phones, ovens, remote controls. They will also have access to interactive whiteboards to support their learning.

YEAR 1

PROJECT EVOLVE WEEKLY ONLINE SAFETY

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

AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2
<p>SELF IMAGE & IDENTITY</p> <ul style="list-style-type: none"> *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 I can trust and how they can help if something happens that makes me feel sad, worried, uncomfortable or frightened <p>COPYRIGHT & OWNERSHIP</p> <ul style="list-style-type: none"> * explain why work I create using technology belongs to me * say why it belongs to me (e.g. 'I designed it' or 'I filmed it') * 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 	<p>ONLINE BULLYING</p> <ul style="list-style-type: none"> *describe how to behave online in ways that do not upset others and can give examples. 	<p>ONLINE RELATIONSHIPS</p> <ul style="list-style-type: none"> *give examples of when I should ask permission to do something online and explain why this is important. *use the internet with adult support to communicate with people I know (e.g. video call apps or services). *explain why it is important to be considerate and kind to people online and to respect their choices. *explain why things one person finds funny or sad online may not always be seen in the same way by others. 	<p>ONLINE REPUTATION</p> <ul style="list-style-type: none"> *recognise that information can stay online and could be copied. *describe what information I should not put online without asking a trusted adult first. <p>PRIVACY & SECURITY</p> <ul style="list-style-type: none"> *explain how passwords are used to protect information, accounts and devices. *recognise more detailed examples of information that is personal to someone (e.g where someone lives and goes to school, family names). *explain why it is important to always ask a trusted adult before sharing any personal information online, belonging to myself or others. 	<p>HEALTH, WELLBEING & LIFESTYLE</p> <ul style="list-style-type: none"> *explain rules to keep myself safe when using technology both in and beyond the home 	<p>MANAGING ONLINE INFORMATION</p> <ul style="list-style-type: none"> *give simple examples of how to find information using digital technologies, e.g. search engines, voice activated searching. *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.

AUT 1: TECHNOLOGY ALL AROUND US	AUT 2: DIGITAL PAINTING	SPR 1: MOVING A ROBOT	SPR 2: GROUPING DATA	SUM1: DIGITAL WRITING	SUM 2: PROGRAMMING ANIMATIONS
<ul style="list-style-type: none"> *Recognise common uses of information technology beyond school *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. 	<ul style="list-style-type: none"> *Use technology purposefully to create, organise, store, manipulate, and retrieve digital content 	<ul style="list-style-type: none"> *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 *Recognise common uses of information technology beyond school 	<ul style="list-style-type: none"> *Use technology purposefully to create, organise, store, manipulate, and retrieve digital content *Use technology safely and respectfully 	<ul style="list-style-type: none"> *Use technology purposefully to create, organise, store, manipulate, and retrieve digital content *Use technology safely and respectfully, keeping personal information private 	<ul style="list-style-type: none"> *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
<ul style="list-style-type: none"> *identify technology *identify a computer and its main parts *use a mouse in different ways *use a keyboard to type on a computer *use the keyboard to edit text *create rules for using technology responsibly 	<ul style="list-style-type: none"> *describe what different freehand tools do *use the shape tool and the line tools *make careful choices when painting a digital picture *explain why I chose the tools I used *use a computer on my own to paint a picture *compare painting a picture on a computer and on paper 	<ul style="list-style-type: none"> *explain what a given command will do *act out a given word *combine 'forwards' and 'backwards' commands to make a sequence *combine four direction commands to make sequences *plan a simple program *find more than one solution to a problem 	<ul style="list-style-type: none"> *label objects *identify that objects can be counted *describe objects in different ways *count objects with the same properties *compare groups of objects *answer questions about groups of objects 	<ul style="list-style-type: none"> *use a computer to write *add and remove text on a computer *identify that the look of text can be changed on a computer *make careful choices when changing text *explain why I used the tools that I chose *compare typing on a computer to writing on paper 	<ul style="list-style-type: none"> *choose a command for a given purpose *show that a series of commands can be joined together *identify the effect of changing a value *explain that each sprite has its own instructions *use my algorithm to create a program

YEAR 2

PROJECT EVOLVE WEEKLY ONLINE SAFETY

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
Recognise common uses of IT beyond school

AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2
<p>SELF IMAGE & IDENTITY</p> <ul style="list-style-type: none"> *explain how other people may look and act differently online and offline. *give examples of issues online that might make someone feel sad, worried, uncomfortable or frightened; I can give examples of how they might get help. <p>COPYRIGHT & OWNERSHIP</p> <ul style="list-style-type: none"> *recognise that content on the internet may belong to other people. *describe why other people's work belongs to them 	<p>ONLINE BULLYING</p> <ul style="list-style-type: none"> *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. 	<p>ONLINE RELATIONSHIPS</p> <ul style="list-style-type: none"> *give examples of how someone might use technology to communicate with others they don't also know offline and explain why this might be risky. (e.g. email, online gaming, a pen-pal in another school / country). *explain who I should ask before sharing things about myself or others online. *describe different ways to ask for, give, or deny my permission online and can identify who can help me if I am not sure. 	<p>ONLINE REPUTATION</p> <ul style="list-style-type: none"> *explain how information put online about someone can last for a long time. *describe how anyone's online information could be seen by others. *know who to talk to if something has been put online without consent or if it is incorrect. <p>PRIVACY & SECURITY</p> <ul style="list-style-type: none"> *explain how passwords can be used to protect information, accounts and devices. *explain and give examples of what is meant by 'private' and 'keeping things private'. 	<p>HEALTH, WELLBEING & LIFESTYLE</p> <ul style="list-style-type: none"> *explain simple guidance for using technology in different environments and settings e.g. accessing online technologies in public places and the home environment. *say how those rules / guides can help anyone accessing online technologies 	<p>MANAGING ONLINE INFORMATION</p> <ul style="list-style-type: none"> *use simple keywords in search engines *demonstrate how to navigate a simple webpage to get to information I need (e.g. home, forward, back buttons; links, tabs and sections). *explain what voice activated searching is and how it might be used, and know it is not a real person (e.g. Alexa, Google Now, Siri). *explain the difference between things that are imaginary, 'made up' or 'make believe' and things that are 'true' or 'real'

		* explain why I have a right to say 'no' or 'I will have to ask someone'. I can 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.	*describe and explain some rules for keeping personal information private (e.g. creating and protecting passwords).		* explain why some information I find online may not be real or true.
AUT 1: IT AROUND US	AUT 2: DIGITAL PHOTOGRAPHY	SPR 1: ROBOT ALGORITHMS	SPR 2: PICTOGRAMS	SUM 1: DIGITAL MUSIC	SUM 2: PROGRAMMING QUIZZES
*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	*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	*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 *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	*Use technology purposefully to create, organise, store, manipulate, and retrieve digital content	*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 the uses and features of information technology *identify the uses of information technology in the school *identify information technology beyond school *explain how information technology helps us *explain how to use information technology safely *recognise that choices are made when using information technology	*use a digital device to take a photograph *make choices when taking a photograph * describe what makes a good photograph * decide how photographs can be improved *use tools to change an image *recognise that photos can be changed	*describe a series of instructions as a sequence * explain what happens when we change the order of instructions * use logical reasoning to predict the outcome of a program * explain that programming projects can have code and artwork *design an algorithm *create and debug a program that I have written	*recognise that we can count and compare objects using tally charts * recognise that objects can be represented as pictures * create a pictogram *select objects by attribute and make comparisons *recognise that people can be described by attributes *explain that we can present information using a computer	*say how music can make us feel * identify that there are patterns in music * experiment with sound using a computer * use a computer to create a musical pattern * create music for a purpose * review and refine our computer work	*explain that a sequence of commands has a start *explain that a sequence of commands has an outcome * create a program using a given design *change a given design *create a program using my own design * decide how my project can be improved

YEAR 3

PROJECT EVOLVE WEEKLY ONLINE SAFETY

use technology safely, respectfully and responsibly;
recognise acceptable/unacceptable behaviour;
identify a range of ways to report concerns about content and contact.
Understand computer networks, including the internet; how they can provide multiple services such as the WWW; and the opportunities they offer for communication and collaboration.

AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2
SELF IMAGE & IDENTITY *explain what is meant by the term 'identity'. *explain how people can represent themselves in different ways online.	ONLINE BULLYING * describe appropriate ways to behave towards other people online and why this is important.	ONLINE RELATIONSHIPS * describe ways people who have similar likes and interests can get together online.	ONLINE REPUTATION * describe ways people who have similar likes and interests can get together online.	HEALTH, WELLBEING & LIFESTYLE * explain why spending too much time using technology can sometimes have a negative impact on anyone; I can give some examples	MANAGING ONLINE INFORMATION * demonstrate how to use key phrases in search engines to gather accurate information online.

<p>*explain ways in which and why I might change my identity depending on what I am doing online (e.g. gaming; using an avatar; social media).</p> <p>COPYRIGHT & OWNERSHIP</p> <p>*explain why copying someone else's work from the internet without permission isn't fair and can explain what problems this might cause</p>	<p>* give examples of how bullying behaviour could appear online and how someone can get support.</p>	<p>* explain what it means to 'know someone' online and why this might be different from knowing someone offline.</p> <p>* 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.</p> <p>*explain why someone may change their mind about trusting anyone with something if they feel nervous, uncomfortable or worried.</p>	<p>* explain what it means to 'know someone' online and why this might be different from knowing someone offline.</p> <p>* 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.</p> <p>* explain why someone may change their mind about trusting anyone with something if they feel nervous, uncomfortable or worried.</p> <p>*Explain how someone's feelings can be hurt by what is said or written online.</p> <p>* explain the importance of giving and gaining permission before sharing things online; how the principles of sharing online is the same as sharing offline e.g. sharing images and videos.</p> <p>PRIVACY & SECURITY</p> <p>* describe simple strategies for creating and keeping passwords private.</p> <p>* give reasons why someone should only share information with people they choose to and can trust. I can explain that if they are not sure or feel pressured then they should tell a trusted adult.</p> <p>* describe how connected devices can collect and share anyone's information with others.</p> <p>(CONTINUE INTO NEXT TERM IF NECESSARY)</p>	<p>of both positive and negative activities where it is easy to spend a lot of time engaged</p> <p>* 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 (e.g. age restricted gaming or web sites).</p>	<p>* explain what autocomplete is and how to choose the best suggestion.</p> <p>* explain how the internet can be used to sell and buy things</p> <p>* explain the difference between a 'belief', an 'opinion' and a 'fact. and can give examples of how and where they might be shared online, e.g. in videos, memes, posts, news stories etc.</p> <p>* explain that not all opinions shared may be accepted as true or fair by others (e.g. monsters under the bed).</p> <p>* describe and demonstrate how we can get help from a trusted adult if we see content that makes us feel sad, uncomfortable, worried or frightened.</p>
<p>AUT 1: CONNECTING COMPUTERS</p>	<p>AUT 2: STOP FRAME ANIMATIONS</p>	<p>SPR 1: SEQUENCING SOUNDS</p>	<p>SPR 2: BRANCHING DATABASES</p>	<p>SUM 1: DESKTOP PUBLISHING</p>	<p>SUMMER 2: EVENTS AND ACTIONS IN PROGRAMS</p>
<p>*use sequence, selection, and repetition in programs; work with variables and various forms of input and output</p> <p>*understand computer networks including the internet; how they can provide multiple services, such as the World Wide Web; and the</p>	<p>*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</p>	<p>*Design, write, and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts</p> <p>*Use sequence, selection, and repetition in programs; work with</p>	<p>*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</p>	<p>*Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content</p> <p>*Select, use, and combine a variety of software (including internet services) on a range of digital devices</p>	<p>*Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts</p> <p>*Use sequence, selection, and repetition in programs; work with</p>

opportunities they offer for communication and collaboration *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.	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 *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	collecting, analysing, evaluating and presenting data and information *use technology safely, respectfully and responsibly	to design and create a range of programs, systems, and content that accomplish given goals, including collecting, analysing, evaluating, and presenting data and information	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 *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
*explain how digital devices function *identify input and output devices *recognise how digital devices can change the way that we work * explain how a computer network can be used to share information *explore how digital devices can be connected *recognise the physical components of a network	*explain that animation is a sequence of drawings or photographs * relate animated movement with a sequence of images *plan an animation *identify the need to work consistently and carefully * review and improve an animation *evaluate the impact of adding other media to an animation	*explore a new programming environment * identify that commands have an outcome * explain that a program has a start * recognise that a sequence of commands can have an order * change the appearance of my project *create a project from a task description	*create questions with yes/no answers * identify the attributes needed to collect data about an object * create a branching database * explain why it is helpful for a database to be well structured *plan the structure of a branching database * independently create an identification tool	*recognise how text and images convey information * recognise that text and layout can be edited * choose appropriate page settings * add content to a desktop publishing publication * consider how different layouts can suit different purposes * consider the benefits of desktop publishing	*explain how a sprite moves in an existing project * create a program to move a sprite in four directions *adapt a program to a new context * develop my program by adding features * identify and fix bugs in a program * design and create a maze-based challenge

YEAR 4

PROJECT EVOLVE WEEKLY ONLINE SAFETY

- *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
- *Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.
- *Understand computer networks, including the internet; how they can provide multiple services such as the WWW; and the opportunities they offer for communication and collaboration.

AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2
SELF IMAGE & IDENTITY *explain why copying someone else's work from the internet without permission isn't fair and can explain what problems this might cause *describe positive ways for someone to interact with others online and understand how this will positively impact on how others perceive them. *explain that others online can pretend to be someone else, including my friends, and can suggest reasons why they might do this. COPYRIGHT & OWNERSHIP	ONLINE BULLYING * recognise when someone is upset, hurt or angry online. * describe ways people can be bullied through a range of media (e.g. image, video, text, chat). * 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).	ONLINE RELATIONSHIPS * describe strategies for safe and fun experiences in a range of online social environments (e.g. livestreaming, gaming platforms) * give examples of how to be respectful to others online and describe how to recognise healthy and unhealthy online behaviours. * explain how content shared online may feel unimportant to one person but may be important to other people's thoughts feelings and beliefs.	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. PRIVACY & SECURITY * describe strategies for keeping personal information private, depending on context. * explain that internet use is never fully private and is monitored, e.g. adult supervision. * describe how some online services may seek consent to store	HEALTH, WELLBEING & 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 e.g. I can suggest strategies to help with limiting this time.	MANAGING ONLINE INFORMATION * analyse information to make a judgement about probable accuracy and I understand why it is important to make my own decisions regarding content and that my decisions are respected by others. * describe how to search for information within a wide group of technologies and make a judgement about the probable accuracy (e.g. social media, image sites, video sites). * describe some of the methods used to encourage people to buy things online (e.g. advertising offers; in-app purchases, pop-ups) and can

<p>*explain why I need to consider who owns it and whether I have the right to reuse it, when I search on the internet for content.</p> <p>*give some simple examples of content which I must not use without permission from the owner, e.g. videos, music, images.</p>			<p>information about me; I know how to respond appropriately and who I can ask if I am not sure.</p> <p>* now what the digital age of consent is and the impact this has on online services asking for consent.</p>		<p>recognise some of these when they appear online.</p> <p>* explain why lots of people sharing the same opinions or beliefs online do not make those opinions or beliefs true.</p> <p>* explain that technology can be designed to act like or impersonate living things (e.g. bots) and describe what the benefits and the risks might be.</p> <p>* explain what is meant by fake news e.g. why some people will create stories or alter photographs and put them online to pretend something is true when it isn't.</p>
AUT 1: AUDIO PRODUCTION	AUT 2: THE INTERNET	SPR 1: REPETITION IN SHAPES	SPR 2: DATA LOGGING	SUM 1: PHOTO EDITING	SUM 2: REPETITION IN GAMES
<p>*Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content</p> <p>*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</p> <p>*Use technology safely, respectfully, and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact</p>	<p>*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</p> <p>*Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content</p> <p>*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</p> <p>*Use technology safely, respectfully, and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</p>	<p>*Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts</p> <p>*Use sequence, selection, and repetition in programs; work with variables and various forms of input and output</p> <p>*Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs</p> <p>*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</p>	<p>*Use sequence, selection, and repetition in programs; work with variables and various forms of input and output</p> <p>*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</p>	<p>*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</p> <p>*Use technology safely, respectfully, and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact</p>	<p>*Design, write, and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts</p> <p>*Use sequence, selection, and repetition in programs; work with variables and various forms of input and output</p> <p>*Use logical reasoning to explain how some simple algorithms work, and to detect and correct errors in algorithms and programs</p> <p>*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</p>
<p>*identify that sound can be recorded</p> <p>* explain that audio recordings can be edited</p> <p>* recognise the different parts of creating a podcast project</p> <p>* apply audio editing skills independently</p> <p>* combine audio to enhance my podcast project</p>	<p>*describe how networks physically connect to other networks</p> <p>* recognise how networked devices make up the internet</p> <p>*outline how websites can be shared via the World Wide Web (WWW)</p> <p>*describe how content can be added and accessed on the World Wide Web (WWW)</p>	<p>*identify that accuracy in programming is important</p> <p>*create a program in a text-based language</p> <p>*explain what 'repeat' means</p> <p>* modify a count-controlled loop to produce a given outcome</p> <p>*create a program that uses count-</p>	<p>*explain that data gathered over time can be used to answer questions</p> <p>* use a digital device to collect data automatically</p> <p>* explain that a data logger collects 'data points' from sensors over time</p> <p>* recognise how a computer can help us analyse data</p>	<p>*explain that the composition of digital images can be changed</p> <p>* explain that colours can be changed in digital images</p> <p>* explain how cloning can be used in photo editing</p> <p>* explain that images can be combined</p> <p>*combine images for a purpose</p>	<p>*develop the use of count-controlled loops in a different programming environment</p> <p>* explain that in programming there are infinite loops and count-controlled loops</p> <p>* develop a design that includes two or more loops which run at the same time</p>

*evaluate the effective use of audio	*recognise how the content of the WWW is created by people *evaluate the consequences of unreliable content	controlled loops to produce a given outcome	* identify the data needed to answer questions	* evaluate how changes can improve an image	* modify an infinite loop in a given program * design a project that includes repetition * create a project that includes repetition
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YEAR 5

PROJECT EVOLVE WEEKLY ONLINE SAFETY

*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

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

*Understand computer networks, including the internet; how they can provide multiple services such as the WWW; and the opportunities they offer for communication and collaboration.

AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2
<p>SELF IMAGE & IDENTITY *explain how identity online can be copied, modified or altered. *demonstrate how to make responsible choices about having an online identity, depending on context.</p> <p>COPYRIGHT & OWNERSHIP *assess and justify when it is acceptable to use the work of others *assess and justify when it is acceptable to use the work of others</p>	<p>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 (including ‘banter’) 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 (e.g. Childline or The Mix).</p>	<p>ONLINE RELATIONSHIPS * give examples of technology-specific forms of communication (e.g. emojis, memes and GIFs). * explain that there are some people I communicate with online who may want to do me or my friends harm. I can recognise that this is not my / our fault. * 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. (e.g. gaming communities or social media groups). * 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.</p>	<p>ONLINE REPUTATION * search for information about an individual online and summarise the information found. * describe ways that information about anyone online can be used by others to make judgments about an individual and why these may be incorrect</p> <p>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 (e.g. friends, contacts, likes, images, videos, voice, messages, geolocation) with others. * explain what app permissions are and can give some examples.</p>	<p>HEALTH, WELLBEING & LIFESTYLE * describe ways technology can affect health and well-being both positively (e.g. mindfulness apps) and negatively. * describe some strategies, tips or advice to promote health and wellbeing 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 (e.g. in-app purchases, lootboxes) and explain the importance of seeking permission from a trusted adult before purchasing.</p>	<p>MANAGING ONLINE INFORMATION * explain the benefits and limitations of using different types of search technologies e.g. voice-activation search engine. I can explain how some technology can limit the information I am presented with. * explain what is meant by ‘being sceptical’; I can give examples of when and why it is important to be ‘sceptical’. * evaluate digital content and can explain how to make choices about what is trustworthy e.g. differentiating between adverts and search results. * 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, e.g. website notifications, pop-ups, targeted ads * describe ways of identifying when online content has been commercially sponsored or boosted, (e.g. by commercial companies or by vloggers, content creators, influencers). * explain what is meant by the term ‘stereotype’, how ‘stereotypes’ are amplified and reinforced online, and why accepting ‘stereotypes’ may influence how people think about others.</p>

					<p>* describe how fake news may affect someone's emotions and behaviour, and explain why this may be harmful.</p> <p>* explain what is meant by a 'hoax'. I can explain why someone would need to think carefully before they share.</p>
AUT 1: SYSTEMS AND SEARCHING	AUT 2: CREATING MEDIA AND VIDEO PRODUCTION	SPR 1: SELECTION IN PHYSICAL COMPUTING	SPR 2: FLAT FILE DATABASES	SUM 1: INTRODUCTION TO VECTOR GRAPHICS	SUMMER 2: SELECTION IN QUIZZES
<p>*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</p> <p>*Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content</p>	<p>*Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content</p> <p>*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</p> <p>*Use technology safely, respectfully, and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact</p>	<p>*Design, write, and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts</p> <p>*Use sequence, selection, and repetition in programs; work with variables and various forms of input and output</p> <p>*Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs</p> <p>*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</p>	<p>*Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content</p> <p>*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</p>	<p>*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.</p>	<p>*design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts</p> <p>*use sequence, selection, and repetition in programs; work with variables and various forms of input and output</p> <p>*use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs</p> <p>*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</p>
<p>* explain that computers can be connected together to form systems</p> <p>*recognise the role of computer systems in our lives</p> <p>* identify how to use a search engine</p> <p>*describe how search engines select results</p> <p>*explain how search results are ranked</p> <p>*recognise why the order of results is important, and to whom</p>	<p>*explain what makes a video effective</p> <p>*use a digital device to record video</p> <p>* capture video using a range of techniques</p> <p>* create a storyboard</p> <p>* identify that video can be improved through reshooting and editing</p> <p>* consider the impact of the choices made when making and sharing a video</p>	<p>*control a simple circuit connected to a computer</p> <p>* write a program that includes count-controlled loops</p> <p>* explain that a loop can stop when a condition is met</p> <p>* explain that a loop can be used to repeatedly check whether a condition has been met</p> <p>* design a physical project that includes selection</p> <p>* create a program that controls a physical computing project</p>	<p>*use a form to record information</p> <p>*compare paper and computer-based databases</p> <p>*outline how you can answer questions by grouping and then sorting data</p> <p>* explain that tools can be used to select specific data</p> <p>* explain that computer programs can be used to compare data visually</p> <p>* use a real-world database to answer questions</p>	<p>*identify that drawing tools can be used to produce different outcomes</p> <p>* create a vector drawing by combining shapes</p> <p>* use tools to achieve a desired effect</p> <p>* recognise that vector drawings consist of layers</p> <p>* group objects to make them easier to work with</p> <p>* apply what I have learned about vector drawings</p>	<p>*explain how selection is used in computer programs</p> <p>* relate that a conditional statement connects a condition to an outcome</p> <p>*explain how selection directs the flow of a program</p> <p>*design a program that uses selection</p> <p>* create a program that uses selection</p> <p>* evaluate my program</p>

YEAR 6

PROJECT EVOLVE WEEKLY ONLINE SAFETY

*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

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

*Understand computer networks, including the internet; how they can provide multiple services such as the WWW; and the opportunities they offer for communication and collaboration.

AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2
<p>SELF IMAGE & IDENTITY *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. *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. *explain the importance of asking until I get the help needed.</p> <p>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 and acknowledge sources I have used from the internet.</p>	<p>ONLINE BULLYING * describe how to capture bullying content as evidence (e.g screen-grab, URL, profile) to share with others who can help me. * explain how someone would report online bullying in different contexts.</p>	<p>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. e.g. screen-grabs. * 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 and others; and who can help if someone is worried about this.</p>	<p>ONLINE REPUTATION * explain the ways in which anyone can develop a positive online reputation. * explain strategies anyone can use to protect their 'digital personality' and online reputation, including degrees of anonymity. PRIVACY & SECURITY * 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, e.g. auto updates. * describe simple ways to increase privacy on apps and services that provide privacy settings. * describe ways in which some online content targets people to gain money or information illegally; I can describe strategies to help me identify such content (e.g. scams, phishing). * know that online services have terms and conditions that govern their use.</p>	<p>HEALTH, WELLBEING & LIFESTYLE * describe common systems that regulate age-related content (e.g. PEGI, BBFC, parental warnings) 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 (current and future use). *assess and action different strategies to limit the impact of technology on health (e.g. night-shift mode, regular breaks, correct posture, sleep, diet and exercise).</p>	<p>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 and can offer examples. * 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 (e.g. advertising and 'ad targeting' and targeting for fake news). * 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 news 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</p>

					<p>inaccurate or untrue. I can assess how this might happen (e.g. the sharing of misinformation or disinformation).</p> <p>* identify, flag and report inappropriate content</p>
AUT 1: COMMUNICATION AND COLLABORATION	AUT 2: WEBPAGE CREATION	SPRING 1: VARIABLES IN GAMES	SPRING 2: INTRODUCTION TO SPREADSHEETS	SUM 1: 3D MODELLING	AUT 2: SENSE IN MOVEMENT
<p>*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</p> <p>*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</p> <p>*Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact</p>	<p>*Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content</p> <p>*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.</p> <p>*use technology safely, respectfully, and responsibly; recognise acceptable/unacceptable behaviour.</p>	<p>*Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts</p> <p>*Use sequence, selection, and repetition in programs; work with variables and various forms of input and output</p> <p>*Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs</p> <p>*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</p>	<p>*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</p>	<p>*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</p> <p>*Use technology safely, respectfully, and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact</p>	<p>*Design, write, and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts</p> <p>*Use sequence, selection, and repetition in programs; work with variables and various forms of input and output</p> <p>*Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs</p> <p>*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</p>
<p>*explain the importance of internet addresses</p> <p>*recognise how data is transferred across the internet</p> <p>*explain how sharing information online can help people to work together</p> <p>*evaluate different ways of working together online</p> <p>*can explain how the internet enables effective collaboration</p> <p>*recognise how we communicate using technology</p> <p>*evaluate different methods of online communication</p>	<p>*review an existing website and consider its structure</p> <p>* plan the features of a web page</p> <p>* consider the ownership and use of images (copyright)</p> <p>* recognise the need to preview pages</p> <p>* outline the need for a navigation</p> <p>* recognise the implications of linking to content owned by other people</p>	<p>*define a 'variable' as something that is changeable</p> <p>* explain why a variable is used in a program</p> <p>* choose how to improve a game by using variables</p> <p>* design a project that builds on a given example</p> <p>* use my design to create a project</p> <p>* evaluate my project</p>	<p>*create a data set in a spreadsheet</p> <p>* build a data set in a spreadsheet</p> <p>* explain that formulas can be used to produce calculated data</p> <p>* apply formulas to data</p> <p>* create a spreadsheet to plan an event</p> <p>* choose suitable ways to present data</p>	<p>*recognise that you can work in three dimensions on a computer</p> <p>* identify that digital 3D objects can be modified</p> <p>* recognise that objects can be combined in a 3D model</p> <p>* create a 3D model for a given purpose</p> <p>* plan my own 3D model</p> <p>* create my own digital 3D model</p>	<p>*create a program to run on a controllable device</p> <p>* explain that selection can control the flow of a program</p> <p>* update a variable with a user input</p> <p>*use an conditional statement to compare a variable to a value</p> <p>* design a project that uses inputs and outputs on a controllable device</p> <p>* develop a program to use inputs and outputs on a controllable device</p>