COMPUTING

AT SHALFLEET AND YARMOUTH CHURCH OF ENGLAND PRIMARY SCHOOLS

NATIONAL CURRICULUM STATEMENT

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.

Aims

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**

OUR INTENT

By the time our children leave our school, our computing provision aims to have equipped them with the necessary skills to understand and access the modern technological world. They will have developed computational thinking, increased their digitally literacy and thus be prepared for their future work environment.

The Federation of the Church Schools of Shalfleet and Yarmouth
Curriculum for Learning Overview

What are we trying to achieve?

Lifelong Achievement

Our purpose is to educate children in an atmosphere of Christian love where all achieve the very best they can, now and throughout their lives

Curriculum Values

- **Relationships** – We have strong partnerships and positive relationships
- **Determination** – We are determined to do our very best to achieve
- **Respect** – We show respect to others and the environment

Design principles to inspire & challenge

- Coherent learning links and pathways
- Strong working partnerships
- High quality outcomes, deep learning
- Valuing all children, learning is accessible to all
- Challenging, engaging and motivating
- Opportunities for memorable experiences
- Promotes independence and curiosity
- Broad, relevant and balanced Local, Mainland, Global

How do we implement ?

The curriculum as the entire planned learning experience

Components

Lessons | Topics | Events/Trips | Environment | Enrichment/Inspire | Partnerships

Teaching for Learning

Clear understanding of cognition and learning – Good subject knowledge – Skilful instruction, coaching and facilitating – Flexible and responsive teaching strategies – Stimulating and well organised learning environments – Effective use of assessment - High expectations and productive interactions

Approaches

Sequences of learning that link key ideas in subject domains - rich connected learning journeys – clear progression of learning – flexible inclusion strategies to tackle educational disadvantage - social, moral, spiritual, cultural education

EYFS/National Curriculum

CLL | PSED | PD | Literacy | Maths | UW | EAD

Eng | Ma | Sci | Comp | D&T | Hist | Geo | A&D | Music | PE | MFL | PSHE | RE

Successful Learning

- Positive relationships and interactions
- Appropriate learning opportunities understood by pupils
- Children understand how to be successful
- Oral and written feedback that has impact
- Dialogic talk and rich questioning
- Developing meta-cognition
- Moderation underpins standards
- Effective use of assessment driving tailored learning
- Target setting and review

What is the impact?

Our curriculum impact can be measured by…

Systematic monitoring, action and review : Do design principles translate into an inspiring and challenging curriculum for all?

Evidenced by…

- High achievement and outcomes for all across the curriculum
- Good behaviour, positive attitudes and high attendance
- Teaching that is engaging and consistently good for all
- Motivated teams & positive learning culture
- Confident, kind, respectful, determined learners

COMPUTING AT THE FEDERATION OF THE CHURCH SCHOOLS OF SHALFLEET AND YARMOUTH

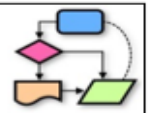
Federation Vision for Computing – Intention for Children

By the time our children leave our school, our computing provision aims to have equipped them with the necessary skills to understand and access the modern technological world. They will have developed computational thinking, increased their digitally literacy and thus be prepared for their future work environment.

Big Ideas

- Computer science – exploring algorithms behind programs and creating these, moving on to learning how to test and debug these to create a working program of their own.
- Information technology – learning a variety of skills within the realms of IT, these include word processing, presentation creation, spreadsheets, databases and video production.
- Digital literacy – investigating how to be safe when using computing technology not just restricted to computers. Giving children the tools to protect themselves.

Content and Sequencing (Broad, relevant and balanced)



- Create and debug simple programs (KS1) Design, write and debug programs that accomplish specific goals (KS2)
- Use logical reasoning to predict behaviour of simple programs (KS1) Using logical reasoning to explain how simple algorithms work and detect errors (KS2)
- Use technology safely and respectfully, keeping personal information private and knowing where to go for help (KS1) recognising acceptable/unacceptable behaviour and identifying a number of ways to report issues (KS2)
- Use technology purposefully to create, organise, store, manipulate and retrieve digital content (KS1) Select, use and combine a variety of software (including internet services) on a range of devices (KS2)
- Recognise common uses of information technology beyond school (KS1) Understand computer networks including the internet (KS2)
- Create and debug simple programs (KS1) Use sequence, selection, repetitions, variables, inputs and outputs in programs (KS2)

Vision for the Federation Learning Principles in Computing

Coherent Learning Links and Pathways:	Strong Working Partnerships:	High Quality Outcomes/Deep Learning:	Valuing All Children/Accessible Learning:	Challenging, Engaging and Motivating:	Opportunities for Memorable Experiences:	Promotes Independence and Curiosity:	Local, Mainland and Global:
Algorithms link strongly to mathematics, requiring children to apply their learning to sequencing code.	Children will work together to evaluate and debug their projects, offering ideas and suggestions to improve them further.	Through teaching the children will have a deep understanding of how computing systems work and power our lives.	All children in our Federation have the same opportunities to achieve the same end goals as each other with scaffolding enabling this.	Children will be challenged to apply their skills across the computing curriculum to create a range of projects that they can creatively adapt to truly make their own.	Children will leave school remembering the first time they learned how to use computing skills that they will use repeatedly throughout their lifetime.	Children will be able to apply their learned skills within computing science to develop projects that they can test with their own ideas.	Children will be able to develop skills that allow them to communicate effectively across the technological landscape of our world.

Links with English and Maths

Maths: Directional language, angles, measurement, four main operations, sequencing, coordinates
English: Sentence structure skills within word processing

Progress

Projects based around computing science skills (computing) will develop through the year groups in the complexity of algorithms used and support given.
Information technology areas will show developed skills in their projects appropriate for their year groups (such as spreadsheet formulas being developed in upper KS2)

Support

Everyone has access to the computing National Curriculum.
Children will be supported with recapping any basic skill not achieved in previous year groups.
Changes made to computers/devices in order to enable access (background lighting/colours or keyboard sizing for example)

PROGRESSION OF SKILLS

1. Information Technology
2. Computing Science
3. Digital Literacy (2 slides)
4. Vocabulary and Resources
5. Overview of coverage (Split into each half term)

COMPUTING	EYFS Link	Key Stage 1	Lower Key Stage 2	Upper Key Stage 2
INFORMATION TECHNOLOGY	**INFORMATION TECHNOLOGY – GENERAL** - Use different digital devices - Recognise a range of digital devices **DATA –** - Sort familiar objects into 1 or more categories - Answer basic questions about information displayed in images, e.g. more or less - Collect simple data (e.g. likes/dislikes) on a topic - Can present simple data using images, e.g. number of animals **MULTIMEDIA (SOUND AND VISION)** - Access content in a range of formats, e.g. image, video, audio - Understand that information and media can be stored on a digital device, e.g. they ask to view a photo that has been taken on a tablet - Can distinguish between text, image, video and audio content **COMMUNICATION –** - Use technology to explore and access digital content - Operate a digital device with support to fulfil a task - Create simple digital content, e.g. digital art - Choose media to convey information, e.g. image for a poster - Choose a digital device from a selection to complete a specific task - Add text to a document using the keyboard (where appropriate) -	**INFORMATION TECHNOLOGY – GENERAL** - Name a range of digital devices (yr 1) - Know where to save and open work (yr 2) **DATA** - Identify an object by asking yes/no questions (yr 1) - Recognise charts, tables or branching databases and understand why we use them (yr 1) - Explain information shown in a simple chart, pictogram, infographic or database (yr 1) - Use specific software to create simple charts (yr 1) - Collect data on a topic (eye colour, pets etc.) (yr 1) - Present data in a pictogram independently (yr 1) - Identify an object using a branching database (yr 1) - Recognise an error in a branching database. (yr 1) - Create a branching database using pre-prepared images and questions (yr 2) - Explain how different formats communicate information and their benefits (yr 2) - Independently plan out and create a branching database (yr 2) - Evaluate a given branching database and suggest improvements (yr 2) - Understand that the questions you ask are important, when collecting data (yr 2) **MULTIMEDIA (SOUND AND VISION)** - Select media (e.g. images, video, sound) to present information on a topic (yr 1) - Take pictures and videos on a media device (yr 1) - Use pictures to create short simple animations (yr 1) - Use photo editing software to simply edit pictures taken (e.g. change filters) (yr 2) - Create a short video joining 2 or more clips together (yr 2) - Find out similar information in different formats, e.g. text, video, audio (yr 2) - Introduce how a green screen can be used for pictures and video (yr 2) **COMMUNICATION (TEXT/PRESENTATION)** - Understand that you can edit and change digital content (yr 1) - Select basic options to change the appearance of digital content (yr 1) - Combine media with support to present information, e.g. text and images (yr 1) - Apply edits to digital content to achieve a particular effect (yr 1) - Plan out digital content (yr 2) - Present ideas and information by combining media independently (yr 2) - Talk about what makes digital content good or bad (yr 2) - Edit digital content to improve it (yr 2)	**INFORMATION TECHNOLOGY – GENERAL** - Open and save a file to a suitable folder (yr 3) - Use suitable file names when saving work (yr 3) - Type using all fingers (yr 3) - Understand you can organise files using folders (yr 3) - Delete, move and copy files (yr 3) - Use right-click, left-click and double-click appropriately on a mouse (yr 4) **DATA** - Appreciate that different programs work with different types of data, e.g. text, number (yr 3) - Explore a record database to find out information (yr 3) - Know that there is a difference between data and information (yr 3) - Use filters in a database to find out specific information (yr 3) - Understand the benefits of using a computer to create charts and databases (yr 3) - Understand that search engines store information in databases (yr 3) - Design a questionnaire and collect a range of data on a theme (yr 3) - Enter data into a database package and test (yr 4) - Draw conclusions from information stored in a database, table or chart (yr 4) - Present data in a number of different ways to convey information (yr 4) **MULTIMEDIA (SOUND AND VISION)** - Use photo editing software to resize and crop photos as well as use further tools (e.g. contrast, brightness) (yr 3) - To be able to create a short video using filters, transitions and the trimming tool (yr 3) - Use pictures to create a more substantial animation. (yr 3) - To be able to use sound effects, soundtracks and titles when editing videos (yr 4) **COMMUNICATION (TEXT/PRESENTATION)** - Know how to copy text and images into a another document (yr 4) - Edit existing media to make new content with an awareness of copyright (yr 3) - Evaluate existing and their own digital content (yr 3) - Edit digital content to improve it according to feedback (yr 3) - Design and create digital content for a specific purpose (yr 4) - Collaborate with peers using online tools, e.g. blogs, Google Drive, Office 365 (yr 4) - Collect, organise and present information effectively using a range of media (yr 4) - Use a range of tools to edit and enhance media for a particular effect (yr 4)	**INFORMATION TECHNOLOGY – GENERAL** - Use the keyboard confidently to type at a suitable pace (yr 5) - Use common keyboard shortcuts (yr 5) - Organise files effectively using folders (yr 5) **DATA** - Question a database using more complex searches (yr 5) - Design and create a database (yr 5) - Create a graph from a data (both databases and spreadsheets) (yr 5) - Use a range of mathematical formula with data (yr 5) - Design their own form of data collection independently for a specific purpose (yr 6) **MULTIMEDIA (SOUND AND VISION)** - To be able to edit videos to include titles, voiceovers, volume boosting and to amend speed where necessary. (yr 5) - To be able to edit videos using the green screen (yr 5) - To edit photos using more advanced terms such as (saturation and hue) (yr 5) - To create and edit an independent video project (yr 6) - To create and edit photos independently for a purpose. (yr 6) **COMMUNICATION (TEXT/PRESENTATION)** - Identify and use appropriate hardware and software to fulfil a specific task (yr 5) - Remix and edit a range of existing and their own media to create content (yr 5) - Recognise the audience when designing and creating digital content (yr 5) - Understand the benefits of using technology to collaborate with others (yr 5) - Identify success criteria for creating digital content for a given purpose and audience (yr 6) - Evaluate their own content against success criteria and make improvements accordingly (yr 6)

COMPUTING	EYFS Link	Key Stage 1	Lower Key Stage 2	Upper Key Stage 2
COMPUTING SCIENCE	**COMPUTING SCIENCE –** - Repeat an action with technology to trigger a specific outcome - Recognise the success or failure of an action - Follow simple instructions to control a digital device - Try alternative approaches to achieve a goal - Understand that we control computers - Can order the steps of a known task - Input a short sequence of instructions to control a device (e.g bee bot app) - Recognise patterns in groups of objects	**COMPUTING SCIENCE –** - Identify and list the steps of a known task in order (yr 1) - Understand that we control computers by giving them instructions (yr 1) - Create a simple program e.g. to control a sprite (yr 1) - Understand what an algorithm is (yr 1) - Create a simple algorithm (yr 1) - Identify and explain patterns in groups of objects (yr 1) - Debug an error in a simple algorithm or program e.g. in Scratch Jr (yr 1) - Predict the outcome of a simple algorithm or program (yr 1) - Understand that computers have no intelligence and we have to program them to do things (yr 1) - Understand that the order of instructions in an algorithm is important (yr 2) - Understand that instructions in an algorithm need to be clear and unambiguous (yr 2) - Evaluate the success of an algorithm or program (yr 2) - Identify and correct errors in a given algorithm or program (debugging) (yr 2) - Use the language *if… then* to describe the relationship between two actions (yr 2)	**COMPUTING SCIENCE –** - Understand that we can decompose a problem into smaller steps to make it simpler (yr 3) - Remix and change an existing program (yr 3) - Predict the outcome of a program, e.g. Scratch (yr 3) - Use diagrams to represent an algorithm, e.g. a flowchart (yr 3) - Use repetition to make programs more efficient (yr 4) - Use forever loops in a program (yr 4) - Create a program using a range of events/inputs to control what happens (yr 4) - Decompose a problem and create a solution for each step (yr 4)	**COMPUTING SCIENCE –** - Recognise that different solutions exist for the same problem (yr 5) - Predict what will happen in a program or algorithm (e.g. change of output) when the input changes (e.g. sensor, data or event) (yr 5) - Use two-way selection, i.e. if… then… else… (yr 5) - Create programs including repeat until loops (yr 5) - Understand the difference between and use if… then… and if… then… else… statements (yr 5) - Recognise variables in a program (yr 6) - Create simple variables, e.g. to keep score or remove lives in a game (yr 6) - Combine a variable with relational operators (< = >) to determine when a program changes, e.g. if score > 5, say "well done" (yr 6)

COMPUTING	EYFS Link	Key Stage 1	Lower Key Stage 2	Upper Key Stage 2
DIGITAL LITERACY	**ESAFETY** *Self-image and identity* - I can recognise that I can say 'no' / 'please stop' / 'I'll tell' / 'I'll ask' to somebody who asks me to do something that makes me feel sad, embarrassed or upset. - I can explain how this could be either in real life or online. Online relationships - I can recognise some ways in which the internet can be used to communicate. - I can give examples of how I (might) use technology to communicate with people I know. Online reputation - I can identify ways that I can put information on the internet. Online bullying - I can describe ways that some people can be unkind online. - I can offer examples of how this can make others feel. Managing online information - I can talk about how I can use the internet to find things out. - I can identify devices I could use to access information on the internet. - I can give simple examples of how to find information (e.g. search engine, voice activated searching). Health, well-being and lifestyle - I can identify rules that help keep us safe and healthy in and beyond the home when using technology, and I can give simple examples. Privacy and security - I can identify some simple examples of my personal information (e.g. name, address, birthday, age, location). - I can describe the people I can trust and can share this with; I can explain why I can trust them. Copyright and ownership - I know that work I create belongs to me. - I can name my work so that others know it belongs to me.	**ESAFETY** *Self-image and identity* - I can recognise that there may be people online who could make me feel sad, embarrassed or upset. (yr 1) - 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. (yr 1) - I can explain how other people's identity online can be different to their identity in real life. (yr 2) - I can describe ways in which people might make themselves look different online. (yr 2) - I can give examples of issues online that might make me feel sad, worried, uncomfortable or frightened; I can give examples of how I might get help. (yr 2) Online relationships - I can use the internet with adult support to communicate with people I know. (yr 1) - I can explain why it is important to be considerate and kind to people online. (yr 1) - I can use the internet to communicate with people I don't know well (e.g. email a penpal in another school/ country). (yr 2) - I can give examples of how I might use technology to communicate with others I don't know well. (yr 2) Online reputation - Through discreet teaching I can recognise that information can stay online and could be copied. (yr 1) - Through discreet teaching I can describe what information I should not put online without asking a trusted adult first. (yr 1) - I can explain how information put online about me can last for a long time. (yr 2) - I know who to talk to if I think someone has made a mistake about putting something online.(yr 2) Online bullying - I can describe how to behave online in ways that do not upset others and can give examples. (yr 1) - I can give examples of bullying behaviour and how it could look online. (yr 1) - I understand how bullying can make someone feel. (yr 2) - I can talk about how someone can/would get help about being bullied online or offline. (yr 2) Managing online information - I can use the internet to find things out. (yr 1) - I can use simple keywords in search engines. (yr 1) - I can describe and demonstrate how to get help from a trusted adult or helpline if I find content that makes me feel sad, uncomfortable worried or frightened. (yr 1) - I can use keywords in search engines.(yr 2) - I can demonstrate how to navigate a simple webpage to get to information I need (e.g. home, forward, back buttons; links, tabs and sections). (yr 2) - I can explain what voice activated searching is and how it might be used (e.g. Alexa, Google Now, Siri). (yr 2) - I can explain the difference between things that are imaginary, 'made up' or 'make believe' and things that are 'true' or 'real'. (yr 2) - I can explain why some information I find online may not be true. (yr 2) Health, well-being and lifestyle - I can explain rules to keep us safe when we are using technology both in and beyond the home, and I can give examples of some of these rules (yr 1)	**ESAFETY** *Self-image and identity* - I can explain what is meant by the term 'identity'. (yr 3) - I can explain how I can represent myself in different ways online. (yr 3) - I can 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). (yr 3) - I can explain how my online identity can be different to the identity I present in 'real life'. (yr 4) - Knowing this, I can describe the right decisions about how I interact with others and how others perceive me. (yr 4) Online relationships - I can describe ways people who have similar likes and interests can get together online. (yr 3) - I can give examples of technology-specific forms of communication (e.g. emojis, acronyms, text speak). (yr 3) - I can explain some risks of communicating online with others I don't know well. (yr 3) - I can explain why I should be careful who I trust online and what information I can trust them with. (yr 3) - I can explain how my and other people's feelings can be hurt by what is said or written online. (yr 3) - I can explain why I can take back my trust in someone or something if I feel nervous, uncomfortable or worried. (yr 3) - I can explain what it means to 'know someone' online and why this might be different from knowing someone in real life. (yr 3) - I can explain what is meant by 'trusting someone online'. I can explain why this is different from 'liking someone online'. (yr 3) - I can describe strategies for safe and fun experiences in a range of online social environments. (yr 4) - I can give examples of how to be respectful to others online. (yr 4) Online reputation - I can search for information about myself online. (yr 3) - I can recognise I need to be careful before I share anything about myself or others online. (yr 3) - I know who I should ask if I am not sure if I should put something online. (yr 3) - I can describe how others can find out information about me by looking online. (yr 4) - I can explain ways that some of the information about me online could have been created, copied or shared by others. (yr 4) Online bullying - I can explain what bullying is and can describe how people may bully others. (yr 3) - I can describe rules about how to behave online and how I follow them. (yr 3) - I can identify some online technologies where bullying might take place. (yr 4) - I can describe ways people can be bullied through a range of media (e.g. image, video, text, chat). (yr 4) - I can explain why I need to think carefully about how content I post might affect others, their feelings and how it may affect how others feel about them (their reputation). (yr 4) Managing online information - I can use key phrases in search engines. (yr 3) - I can explain what autocomplete is and how to choose the best suggestion. (yr 3) - I can explain how the internet can be used to sell and buy things. (yr 3)	**ESAFETY** *Self-image and identity* - I can explain how identity online can be copied, modified or altered. (yr 5) - I can demonstrate responsible choices about my online identity, depending on context. (yr 5) - I can describe ways in which media can shape ideas about gender. (yr 6) - I can identify messages about gender roles and make judgements based on them. (yr 6) - I can challenge and explain why it is important to reject inappropriate messages about gender online. (yr 6) - I can describe issues online that might make me or others feel sad, worried, uncomfortable or frightened. I know and can give examples of how I might get help, both on and offline. (yr 6) - I can explain why I should keep asking until I get the help I need. (yr 6) Online relationships - I can 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. (yr 5) - I can make positive contributions and be part of online communities. (yr 5) - I can describe some of the communities in which I am involved and describe how I collaborate with others positively (yr 5) - I can show I understand my responsibilities for the well-being of others in my online social group. (yr 6) - I can explain how impulsive and rash communications online may cause problems (e.g. flaming, content produced in live streaming). (yr 6) - I can demonstrate how I would support others (including those who are having difficulties) online (yr 6) - I can demonstrate ways of reporting problems online for both myself and my friends. (yr 6) Online reputation - I can search for information about an individual online and create a summary report of the information I find. (yr 5) - I can describe ways that information about people online can be used by others to make judgments about an individual. (yr 5) - I can explain how I am developing an online reputation which will allow other people to form an opinion of me. (yr 6) - I can describe some simple ways that help build a positive online reputation. (yr 6) Online bullying - I can recognise when someone is upset, hurt or angry online. (yr 5) - I can describe how to get help for someone that is being bullied online and assess when I need to do or say something or tell someone. (yr 5) - I can explain how to block abusive users. (yr 5) - I can explain how I would report online bullying on the apps and platforms that I use. (yr 5) - I can describe the helpline services who can support me and what I would say and do if I needed their help (e.g. Childline). (yr 5) - I can describe how to capture bullying content as evidence (e.g screen-grab, URL, profile) to share with others who can help me. (yr 6) - I can identify a range of ways to report concerns both in school and at home about online bullying. (yr 6) Managing online information - I can use different search technologies (yr 5) - I can evaluate digital content and can explain how I make choices from search results. (yr 5) - I can explain key concepts including: data, information, fact, opinion belief, true, false, valid, reliable and evidence. (yr 5) - I understand the difference between online mis-information (inaccurate information distributed by accident) and dis-information (inaccurate information deliberately distributed and intended to mislead). (yr 5) - I can explain what is meant by 'being sceptical'. I can give examples of when and why it is important to be 'sceptical'. (yr 5) - I can explain what is meant by a 'hoax'. I can explain why I need to think carefully before I forward anything online. (yr 5)

COMPUTING	EYFS Link	Key Stage 1	Lower Key Stage 2	Upper Key Stage 2
DIGITAL LITERACY	**HOW A COMPUTER WORKS –** - Recognise the basic parts of a computer, e.g. mouse, screen, keyboard - Use a mouse, touchscreen or appropriate access device to target and select options on screen - Recognise key parts of a keyboard, e.g. spacebar, numbers and letters	- I can explain simple guidance for using technology in different environments and settings.(yr 2) - I can say how those rules/guides can help me. (yr 2) <u>Privacy and security</u> - I can recognise more detailed examples of information that is personal to me (e.g. where I live, my family's names, where I go to school). (yr 1) - I can explain why I should always ask a trusted adult before I share any information about myself online. (yr 1) - I can explain how passwords can be used to protect information and devices. (yr 1) - I can describe how online information about me could be seen by others. (yr 2) - I can describe and explain some rules for keeping my information private. (yr 2) - I can explain what passwords are and can use passwords for my accounts and devices. (yr 2) - I can explain how many devices in my home could be connected to the internet and can list some of those devices. (yr 2) <u>Copyright and ownership</u> - I can explain why work I create using technology belongs to me. (yr 1) - I can say why it belongs to me (e.g. 'it is my idea' or 'I designed it'). (yr 1) - I can save my work so that others know it belongs to me (e.g. filename, name on content). (yr 1) - I can describe why other people's work belongs to them. (yr 2) - I can recognise that content on the internet may belong to other people. (yr 2) **HOW A COMPUTER WORKS** - Explain what the basic parts of a computer are used for, e.g. mouse, screen, keyboard (yr 1) - Recognise and use a range of input devices, e.g. mouse, keyboard, microphone, touchscreen (yr 2) - Recognise and use a range of output devices, e.g. printer, speakers, monitor/screen (yr 2) - Recognise that a range of devices contain computers, e.g. washing machine, car, laptop (yr 2)	- "I can explain the difference between a 'belief', an 'opinion' and a 'fact'." (yr 3) - I can analyse information and differentiate between 'opinions', 'beliefs' and 'facts'. I understand what criteria have to be met before something is a 'fact'. (yr 4) - I can describe how I can search for information within a wide group of technologies (e.g. social media, image sites, video sites). (yr 4) - I 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. (yr 4) - I can explain that some people I 'meet online' (e.g. through social media) may be computer programmes pretending to be real people. (yr 4) - I can explain why lots of people sharing the same opinions or beliefs online does not make those opinions or beliefs true. (yr 4) <u>Health, well-being and lifestyle</u> - I can explain why spending too much time using technology can sometimes have a negative impact on me; I can give some examples of activities where it is easy to spend a lot of time engaged (e.g. games, films, videos). (yr 3) - I can explain how using technology can distract me from other things I might do or should be doing. (yr 4) - I can identify times or situations when I might need to limit the amount of time I use technology. (yr 4) - I can suggest strategies to help me limit this time. (yr 4) <u>Privacy and security</u> - I can give reasons why I should only share information with people I choose to and can trust. I can explain that if I am not sure or I feel pressured, I should ask a trusted adult. (yr 3) - I understand and can give reasons why passwords are important. (yr 3) - I can describe simple strategies for creating and keeping passwords private. (yr 3) - I can describe how connected devices can collect and share my information with others. (yr 3) - I can explain what a strong password is. (yr 4) - I can describe strategies for keeping my personal information private, depending on context. (yr 4) - I can explain that others online can pretend to be me or other people, including my friends. (yr 4) - I can suggest reasons why they might do this. (yr 4) - I can explain how internet use can be monitored. (yr 4) <u>Copyright and ownership</u> - I can explain why copying someone else's work from the internet without permission can cause problems. (yr 3) - I can give examples of what those problems might be. (yr 3) - 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, and I can give some simple examples (yr 4) **HOW A COMPUTER WORKS** - Understand that school computers are connected (yr 3) - Understand that the Internet is made up of computers from all around the world connected together (yr 4) - Understand that that school computers are connected together in a network (yr 4) - Understand that we use a web browser to access information stored on the Internet (yr 4)	- I can explain why some information I find online may not be honest, accurate or legal. (yr 5) - I can explain why information that is on a large number of sites may still be inaccurate or untrue. I can assess how this might happen (e.g. the sharing of misinformation either by accident or on purpose). (yr 5) - I can use search technologies effectively. (yr 6) - I can explain how search engines work and how results are selected and ranked. (yr 6) - I can demonstrate the strategies I would apply to be discerning in evaluating digital content. (yr 6) - I can describe how some online information can be opinion and can offer examples. (yr 6) - I can explain how and why some people may present 'opinions' as 'facts'. (yr 6) - I can define the terms 'influence', 'manipulation' and 'persuasion' and explain how I might encounter these online (e.g. advertising and 'ad targeting'). (yr 6) - I can demonstrate strategies to enable me to analyse and evaluate the validity of 'facts' and I can explain why using these strategies are important. (yr 6) - I can identify, flag and report inappropriate content. (yr 6) <u>Health, well-being and lifestyle</u> - I can describe ways technology can affect healthy sleep and can describe some of the issues. (yr 5) - I can describe some strategies, tips or advice to promote healthy sleep with regards to technology. (yr 5) - I can describe common systems that regulate age-related content (e.g. PEGI, BBFC, parental warnings) and describe their purpose. (yr 6) - I can assess and action different strategies to limit the impact of technology on my health (e.g. nightshift mode, regular breaks, correct posture, sleep, diet and exercise). (yr 6) - I can explain the importance of self-regulating my use of technology; I can demonstrate the strategies I use to do this (e.g. monitoring my time online, avoiding accidents). (yr 6) <u>Privacy and security</u> - I can create and use strong and secure passwords. (yr 5) - I can explain how many free apps or services may read and share my private information (e.g. friends, contacts, likes, images, videos, voice, messages, geolocation) with others. (yr 5) - I can explain how and why some apps may request or take payment for additional content (e.g. in-app purchases) and explain why I should seek permission from a trusted adult before purchasing. (yr 5) - I use different passwords for a range of online services. (yr 6) - I can describe effective strategies for managing those passwords (e.g.password managers, acronyms, stories). (yr 6) - I know what to do if my password is lost or stolen. (yr 6) - I can explain what app permissions are and can give some examples from the technology or services I use.(yr 6) - I can describe simple ways to increase privacy on apps and services that provide privacy settings. (yr 6) - I can 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). (yr 6) <u>Copyright and ownership</u> - I can assess and justify when it is acceptable to use the work of others. (yr 5) - I can give examples of content that is permitted to be reused. (yr 5) - I can demonstrate the use of search tools to find and access online content which can be reused by others. (yr 6) - I can demonstrate how to make references to and acknowledge sources I have used from the internet. (yr 6) **HOW A COMPUTER WORKS** - Understand that different devices can have different operating systems, and can give examples, e.g. Windows, iOS, Android (yr 6) - Understand the main functions of an operating system (yr 6) - Recognise common file types and extensions (yr 6)

COMPUTING	EYFS Link	Key Stage 1	Lower Key Stage 2	Upper Key Stage 2
Vocabulary	Device, computer, mouse, keyboard, numbers, letters, document, type, spacebar, screen, internet, online, technology, content, text, image, video, audio, media, digital, data, information, personal, online, real life, trust, categories, action, success, failure, repeat, outcome, instructions, approach, control, patterns, input, order.	Save, open, database (branching), software, hardware, infographic, chart, table, pictogram, editing, animation, filters, green screen, clips, combine, apply, instructions, algorithm, program, patterns, error, predict, debug intelligence, order, identify, unambiguous, evaluate, identity, communicate, support, behaviour, bullying, search engine, keyword, demonstrate, navigate, webpage, home, forward, back buttons; links, tabs, sections, voice-activated, imaginary, environments, guidance, settings, password, account, rules, microphone, touchscreen, printer, speakers, computers (other devices).	Suitable, file names, folders, click, move, organise, copy, specific, conclusions, convey, store, collect, design, questionnaire, filter, record, test, resize, crop, contrast, brightness, sound effects, soundtracks, titles, trim, transition, document, copyright, collaborate, enhance, decompose, remix, repetition, flowchart, loops, events, inputs, solution, identity, perceive, avatar, trust, respectful, shared, reputation, chat, content, engaged, strategies, pressured, private, connected, personal, monitor, permission, network, browser,	Complex, formula, voiceover, volume boost, speed, saturation, hue, audience, evaluate, solutions, selection, variables, relational operators, modified, altered, gender, judgements, reject, communities, contributions, impulsive, social group, abusive, capture, fact, opinion belief, true, false, valid, reliable, evidence, misinformation, disinformation, distributed, hoax, sceptical, discerning, ranked, influence, manipulation, persuasion, advertising, flag, report, ad targeting, validity, promote, self-regulating, monitoring, age-related, geo-location, privacy, targets, illegal, scams, phishing, acknowledge, references, operating system, functions, extensions, file types.
Resources – Including link to Reading	E-safety links document, Scratch JR, BeeBot app, Beebots, IT skills document, whiteboard app, Paint, Word, laptops, iPads, Google Chrome, other electronic devices (that use computers), role play technology, https://www.j2e.com/jit5#paint (for drawing and presenting data)	Code it planning/resources, E-safety links document, Scratch JR, BeeBot app, Beebots, IT skills document, Word, PowerPoint, Excel, Gmail, iMovie, Stop animation app, Green Screen app, Snapseed app (photo editing app), laptops, iPads, Google Chrome, Green Screen, other electronic devices (that use computers). https://www.j2e.com/j2data/ (for data work)	Code it planning/resources, E-safety links document, Scratch, IT skills document, Scratch, Word, PowerPoint, Excel, Access, Google Drive, Gmail, iMovie, Stop animation app, Green Screen app, Snapseed app (photo editing app), laptops, iPads, Google Chrome, Green Screen, https://www.j2e.com/j2data/ (for data work)	Code it planning/resources, E-safety links document, Scratch, IT skills document, Scratch, Word, PowerPoint, Excel, Access, Google Drive, Gmail, iMovie, Stop animation app, Green Screen app, Snapseed app (photo editing app), laptops, iPads, Google Chrome, Green Screen, https://www.j2e.com/j2data/ (for data work)

FEDERATION COVERAGE – AUTUMN 1

	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6
Aut 1	E-Safety x 2 LESSONS Self image and Identity (https://projectevolve.co.uk/toolkit/years/year-one/self-image-and-identity/) **LOOK TO COVER ALL TARGETS IN ONE LESSON THE BEST YOU CAN.** Health, well-being and lifestyle (https://projectevolve.co.uk/toolkit/years/year-one/health-well-being-and-lifestyle/) **LOOK TO COVER ALL TARGETS IN ONE LESSON THE BEST YOU CAN.**	E-Safety x 2 LESSONS Self image and Identity (https://projectevolve.co.uk/toolkit/years/year-two/self-image-and-identity/) **LOOK TO COVER ALL TARGETS IN ONE LESSON THE BEST YOU CAN.** Health, well-being and lifestyle (https://projectevolve.co.uk/toolkit/years/year-two/health-well-being-and-lifestyle/) **LOOK TO COVER ALL TARGETS IN ONE LESSON THE BEST YOU CAN.**	E-Safety x 2 LESSONS Self image and Identity (https://projectevolve.co.uk/toolkit/years/year-three/self-image-and-identity/) **LOOK TO COVER ALL TARGETS IN ONE LESSON THE BEST YOU CAN.** Health, well-being and lifestyle (https://projectevolve.co.uk/toolkit/years/year-three/health-well-being-and-lifestyle/)	E-Safety x 2 LESSONS Self image and Identity (https://projectevolve.co.uk/toolkit/years/4/self-image-and-identity/) **LOOK TO COVER ALL TARGETS IN ONE LESSON THE BEST YOU CAN.** Health, well-being and lifestyle (https://projectevolve.co.uk/toolkit/years/4/health-well-being-and-lifestyle/) **LOOK TO COVER ALL TARGETS IN ONE LESSON THE BEST YOU CAN.**	E-Safety x 2 LESSONS Self image and Identity (https://projectevolve.co.uk/toolkit/years/5/self-image-and-identity/) **LOOK TO COVER ALL TARGETS IN ONE LESSON THE BEST YOU CAN.** Health, well-being and lifestyle (https://projectevolve.co.uk/toolkit/years/5/health-well-being-and-lifestyle/) **LOOK TO COVER ALL TARGETS IN ONE LESSON THE BEST YOU CAN.**	E-Safety x 2 LESSONS Self image and Identity (https://projectevolve.co.uk/toolkit/years/6/self-image-and-identity/) **LOOK TO COVER ALL TARGETS IN ONE LESSON THE BEST YOU CAN. YOU MAY NEED TO TACKLE SOME TARGETS IN SUM 2** Health, well-being and lifestyle (https://projectevolve.co.uk/toolkit/years/6/health-well-being-and-lifestyle/) **LOOK TO COVER ALL TARGETS IN ONE LESSON THE BEST YOU CAN.**
	Communication - Understand that you can edit and change digital content (yr 1) - Select basic options to change the appearance of digital content (yr 1) - Combine media with support to present information, e.g. text and images (yr 1) - Apply edits to digital content to achieve a particular effect (yr 1) **TYPING (1 LESSON)** **WORD – (1 LESSON)**	Multimedia (Vision) - Use photo editing software to simply edit pictures taken (e.g. change filters) (yr 2) - Introduce how a green screen can be used for pictures and video (yr 2) **Photo taking (1 lesson) –** **Green screen photos (1 lesson) -**	Communication - Know how to copy text and images into a another document (yr 3) - Edit existing media to make new content with an awareness of copyright (yr 3) - Evaluate existing and their own digital content (yr 3) - Edit digital content to improve it according to feedback (yr 3) **WORD (2 LESSONS) -**	Computing science (3 LESSONS) - Use repetition to make programs more efficient (yr 4) - Use forever loops in a program (yr 4) - Create a program using a range of events/inputs to control what happens (yr 4) - Decompose a problem and create a solution for each step (yr 4) http://code-it.co.uk/wp-content/uploads/2019/06/exploringloopsPLAN.pdf **(PLAN – links inside)**	Multimedia (Vision) - To edit photos using more advanced terms such as (saturation and hue). **Photo editing (2 lessons)**	Multimedia (Vision) - To create and edit photos independently for a purpose. (yr 6) **Photo editing (2 lessons).**
	Multimedia (Vision) - Select media (e.g. images, video, sound) to present information on a topic (yr 1) - Take pictures and videos on a media device (yr 1) **Photo taking (1 lesson)**	Communication - Plan out digital content (yr 2) - Present ideas and information by combining media independently (yr 2) - Talk about what makes digital content good or bad (yr 2) - Edit digital content to improve it (yr 2) **TYPING (1 LESSON)** **WORD – (1 LESSON)**	Multimedia (Vision) - Use photo editing software to resize and crop photos as well as use further tools (e.g. contrast, brightness) (yr 3) **Photo editing (2 lessons)**	Communication - Design and create digital content for a specific purpose (yr 4) - Collaborate with peers using online tools, e.g. blogs, Google Drive, Office 365 (yr 4) - Collect, organise and present information effectively using a range of media (yr 4) - Use a range of tools to edit and enhance media for a particular effect (yr 4) **WORD (2 LESSONS**	Communication (Presentation) – - Identify and use appropriate hardware and software to fulfil a specific task (yr 5) - Remix and edit a range of existing and their own media to create content (yr 5) - Recognise the audience when designing and creating digital content (yr 5) - Understand the benefits of using technology to collaborate with others (yr 5) **POWERPOINT (2 LESSONS)**	Communication - Identify success criteria for creating digital content for a given purpose and audience (yr 6) - Evaluate their own content against success criteria and make improvements accordingly (yr 6) **WORD (2 Lessons)**

FEDERATION COVERAGE –

	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6
Aut 2	E-Safety x 2 LESSONS Online relationships (https://projectevolve.co.uk/toolkit/years/year-one/online-relationships/) **LOOK TO COVER ALL TARGETS IN ONE LESSON THE BEST YOU CAN.** Online bullying (https://projectevolve.co.uk/toolkit/years/year-one/online-bullying/)	E-Safety x 2 LESSONS Online relationships (https://projectevolve.co.uk/toolkit/years/year-two/online-relationships/) **LOOK TO COVER ALL TARGETS IN ONE LESSON THE BEST YOU CAN.** Online bullying (https://projectevolve.co.uk/toolkit/years/year-two/online-bullying/) **LOOK TO COVER ALL TARGETS IN ONE LESSON THE BEST YOU CAN.**	E-Safety x 2 LESSONS Online relationships (https://projectevolve.co.uk/toolkit/years/year-three/online-relationships/) **LOOK TO COVER ALL TARGETS IN ONE LESSON THE BEST YOU CAN. YOU MAY NEED TO TACKLE SOME TARGETS IN SUM 2** Online bullying (https://projectevolve.co.uk/toolkit/years/year-three/online-bullying/) **LOOK TO COVER ALL TARGETS IN ONE LESSON THE BEST YOU CAN.**	E-Safety x 2 LESSONS Online relationships (https://projectevolve.co.uk/toolkit/years/4/online-relationships/) **LOOK TO COVER ALL TARGETS IN ONE LESSON THE BEST YOU CAN.** Online bullying (https://projectevolve.co.uk/toolkit/years/4/online-bullying/) **LOOK TO COVER ALL TARGETS IN ONE LESSON THE BEST YOU CAN.**	E-Safety x 2 LESSONS Online relationships (https://projectevolve.co.uk/toolkit/years/5/online-relationships/) **LOOK TO COVER ALL TARGETS IN ONE LESSON THE BEST YOU CAN.** Online bullying (https://projectevolve.co.uk/toolkit/years/5/online-bullying/) **LOOK TO COVER ALL TARGETS IN ONE LESSON THE BEST YOU CAN. YOU MAY NEED TO TACKLE SOME TARGETS IN SUM 2**	E-Safety x 2 LESSONS Online relationships (https://projectevolve.co.uk/toolkit/years/6/online-relationships/) **LOOK TO COVER ALL TARGETS IN ONE LESSON THE BEST YOU CAN.** Online bullying (https://projectevolve.co.uk/toolkit/years/6/online-bullying/) **LOOK TO COVER ALL TARGETS IN ONE LESSON THE BEST YOU CAN.**
	Computing science (3 LESSONS) Coding – All barefoot based around algorithms - Identify and list the steps of a known task in order (yr 1) - Understand that we control computers by giving them instructions (yr 1) - Understand what an algorithm is (yr 1) - Create a simple algorithm (yr 1) - Identify and explain patterns in groups of objects (yr 1) - Predict the outcome of a simple algorithm or program (yr 1) - Understand that computers have no intelligence and we have to program them to do things (yr 1)	Computing science (3 LESSONS) Coding – All barefoot based around algorithms - Understand that the order of instructions in an algorithm is important (yr 2) - Understand that instructions in an algorithm need to be clear and unambiguous (yr 2) - Evaluate the success of an algorithm or program (yr 2) - Identify and correct errors in a given algorithm or program (debugging) (yr 2)	Computing science (3 LESSONS) - Remix and change an existing program (yr 3) - Predict the outcome of a program, e.g. Scratch (yr 3) http://code-it.co.uk/wp-content/uploads/2019/04/dialogue_vC.pdf **(PLAN including links inside)**	Computing science (2 LESSONS) - Use repetition to make programs more efficient (yr 4) - Use forever loops in a program (yr 4) - Create a program using a range of events/inputs to control what happens (yr 4) - Decompose a problem and create a solution for each step (yr 4) http://code-it.co.uk/wp-content/uploads/2019/05/sequencetoloopPLAN.pdf **(PLAN – Links inside)**	Computing science (3 LESSONS) - Recognise that different solutions exist for the same problem (yr 5) - Predict what will happen in a program or algorithm (e.g. change of output) when the input changes (e.g. sensor, data or event) (yr 5) http://code-it.co.uk/wp-content/uploads/2019/10/makingchoicesPLAN.pdf **(PLAN – Links inside)**	Computing science (3 LESSONS) - Recognise variables in a program (yr 6) - Create simple variables, e.g. to keep score or remove lives in a game (yr 6) - Combine a variable with relational operators (< = >) to determine when a program changes, e.g. if score > 5, say "well done" (yr 6) http://code-it.co.uk/wp-content/uploads/2019/05/basicProceduresPlan.pdf **(PLAN – Links inside)**
	Data (Database) (2 LESSONS) - Identify an object by asking yes/no questions (yr 1) - Recognise charts, tables or branching databases and understand why we use them (yr 1) - Explain information shown in a simple chart, pictogram, infographic or database (yr 1) - Identify an object using a branching database (yr 1) - Recognise an error in a branching database. (yr 1)	Data (Database) (2 LESSONS) - Create a branching database using pre-prepared images and questions (yr 2) - Explain how different formats communicate information and their benefits (yr 2) - Independently plan out and create a branching database (yr 2) - Evaluate a given branching database and suggest improvements (yr 2)	Data (Database) (2 LESSONS) - Appreciate that different programs work with different types of data, e.g. text, number (yr 3) - Explore a record database to find out information (yr 3) - Know that there is a difference between data and information (yr 3) - Use filters in a database to find out specific information (yr 3)	Data (Database) (2 LESSONS) - Enter data into a database package and test (yr 4) - Draw conclusions from information stored in a database, table or chart (yr 4)	Data – (Database) (2 LESSONS) - Question a database using more complex searches - Design and create a database - Create a graph from a data (both databases and spreadsheets)	Data – Database (2 LESSONS) - Design their own form of data collection independently for a specific purpose (yr 6)

FEDERATION COVERAGE –

Spr 1	How a computer works – (Repeat targets from previous year)	How a computer works – (Repeat targets from previous year)	How a computer works – (Repeat targets from previous year)	How a computer works – (Repeat targets from previous year)	How a computer works – (Repeat targets from previous year)	How a computer works – (Repeat targets from yr 4)
	Data (Charts) (LESSON 2) - Recognise charts, tables or branching databases and understand why we use them (yr 1) - Explain information shown in a simple chart, pictogram, infographic or database (yr 1) - Use specific software to create simple charts (yr 1) - Collect data on a topic (eye colour, pets etc.) (yr 1) - Present data in a pictogram independently (yr 1)	Data (Charts) (2 LESSONS) - Understand that the questions you ask are important, when collecting data (yr 2)	Data (Database) (2 LESSONS) - Understand the benefits of using a computer to create charts and databases (yr 3) - Understand that search engines store information in databases (yr 3) - Design a questionnaire and collect a range of data on a theme (yr 3)	Data (Charts) (2 LESSONS) - Draw conclusions from information stored in a database, table or chart (yr 4) - Present data in a number of different ways to convey information (yr 4)	Data – Spreadsheets (2 LESSONS) – - Create a graph from a data (both databases and spreadsheets) (yr 5) - Use a range of mathematical formula with data (yr 5)	Data – Spreadsheet (2 LESSONS) - Design their own form of data collection independently for a specific purpose (yr 6)
	Communication - Understand that you can edit and change digital content (yr 1) - Select basic options to change the appearance of digital content (yr 1) - Combine media with support to present information, e.g. text and images (yr 1) - Apply edits to digital content to achieve a particular effect (yr 1) **WORD (2 LESSONS)**	Communication - Plan out digital content (yr 2) - Present ideas and information by combining media independently (yr 2) - Talk about what makes digital content good or bad (yr 2) - Edit digital content to improve it (yr 2) **POWERPOINT (2 LESSONS)**	Communication - Know how to copy text and images into a another document (yr 3) - Edit existing media to make new content with an awareness of copyright (yr 3) - Evaluate existing and their own digital content (yr 3) - Edit digital content to improve it according to feedback (yr 3) **POWERPOINT (2 LESSONS)**	Communication - Design and create digital content for a specific purpose (yr 4) - Collaborate with peers using online tools, e.g. blogs, Google Drive, Office 365 (yr 4) - Collect, organise and present information effectively using a range of media (yr 4) - Use a range of tools to edit and enhance media for a particular effect (yr 4) **POWERPOINT (2 LESSONS)**	Communication (Text) - Identify and use appropriate hardware and software to fulfil a specific task (yr 5) - Remix and edit a range of existing and their own media to create content (yr 5) - Recognise the audience when designing and creating digital content (yr 5) - Understand the benefits of using technology to collaborate with others (yr 5) **WORD (2 LESSONS)**	Communication - Identify success criteria for creating digital content for a given purpose and audience (yr 6) - Evaluate their own content against success criteria and make improvements accordingly (yr 6) **POWERPOINT (2 Lessons)**

FEDERATION COVERAGE –

	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6
Spr 2	E-Safety x 2 LESSONS Managing online information (COMING SOON) Online reputation (https://projectevolve.co.uk/toolkit/years/year-one/online-reputation/) **LOOK TO COVER ALL TARGETS IN ONE LESSON THE BEST YOU CAN.**	E-Safety x 2 LESSONS Managing online information (COMING SOON) Online reputation (https://projectevolve.co.uk/toolkit/years/year-two/online-reputation/) **LOOK TO COVER ALL TARGETS IN ONE LESSON THE BEST YOU CAN.**	E-Safety x 2 LESSONS Managing online information (COMING SOON) Online reputation (https://projectevolve.co.uk/toolkit/years/year-three/online-reputation/) **LOOK TO COVER ALL TARGETS IN ONE LESSON THE BEST YOU CAN.**	E-Safety x 2 LESSONS Managing online information (COMING SOON) Online reputation (https://projectevolve.co.uk/toolkit/years/4/online-reputation/) **LOOK TO COVER ALL TARGETS IN ONE LESSON THE BEST YOU CAN.**	E-Safety x 2 LESSONS Managing online information (COMING SOON) Online reputation (https://projectevolve.co.uk/toolkit/years/5/online-reputation/) **LOOK TO COVER ALL TARGETS IN ONE LESSON THE BEST YOU CAN.**	E-Safety x 2 LESSONS Managing online information (COMING SOON) Online reputation (https://projectevolve.co.uk/toolkit/years/6/online-reputation/) **LOOK TO COVER ALL TARGETS IN ONE LESSON THE BEST YOU CAN.**
	Multimedia (Vision) - Use pictures to create short simple animations (yr 1) **Stop motion animation (2 lessons)**	Computing Science (2/3 Lessons) - Understand that the order of instructions in an algorithm is important (yr 2) - Understand that instructions in an algorithm need to be clear and unambiguous (yr 2) - Evaluate the success of an algorithm or program (yr 2) - Identify and correct errors in a given algorithm or program (debugging) (yr 2) **Coding – Knock Knock (2/3 LESSONS)**	Multimedia (Sound and Vision) - To be able to create a short video using filters, transitions and the trimming tool (yr 3) - Use pictures to create a more substantial animation. (yr 3) **Video editing (2 lessons)** **Stop animation (2 lessons)**	Computing Science (3 LESSONS) - Use repetition to make programs more efficient (yr 4) - Use forever loops in a program (yr 4) - Create a program using a range of events/inputs to control what happens (yr 4) - Decompose a problem and create a solution for each step (yr 4) **http://code-it.co.uk/wp-content/uploads/2019/06/toygiveawayPLAN.pdf** **(PLAN – Links inside)**	Multimedia (Sound and Vision) - To be able to edit videos to include titles, voiceovers, volume boosting and to amend speed where necessary. - To be able to edit videos using the green screen. **Video editing (2/3 lessons)** **Green Screen editing (1 lesson)**	Multimedia (Sound and Vision) - To create and edit an independent video project (yr 6) Computing Science (3 LESSONS) - Recognise variables in a program (yr 6) - Create simple variables, e.g. to keep score or remove lives in a game (yr 6) - Combine a variable with relational operators (< = >) to determine when a program changes, e.g. if score > 5, say "well done" (yr 6) **http://code-it.co.uk/wp-content/uploads/2019/05/NestedLoopsProcedurePlan.pdf (PLAN – Including links)**

FEDERATION COVERAGE –

	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6
Sum 1	E-Safety x 2 LESSONS Privacy and Security (https://projectevolve.co.uk/toolkit/years/year-one/privacy-and-security/) **LOOK TO COVER ALL TARGETS IN ONE LESSON THE BEST YOU CAN.** Copyright and Ownership (https://projectevolve.co.uk/toolkit/years/year-one/copyright-and-ownership/) **LOOK TO COVER ALL TARGETS IN ONE LESSON THE BEST YOU CAN.**	E-Safety x 2 LESSONS Privacy and Security (https://projectevolve.co.uk/toolkit/years/year-two/privacy-and-security/) **LOOK TO COVER ALL TARGETS IN ONE LESSON THE BEST YOU CAN. YOU MAY NEED TO TACKLE SOME TARGETS IN SUM 2** Copyright and Ownership (https://projectevolve.co.uk/toolkit/years/year-two/copyright-and-ownership/) **LOOK TO COVER ALL TARGETS IN ONE LESSON THE BEST YOU CAN.**	E-Safety x 2 LESSONS Privacy and Security (https://projectevolve.co.uk/toolkit/years/year-three/privacy-and-security/) **LOOK TO COVER ALL TARGETS IN ONE LESSON THE BEST YOU CAN. YOU MAY NEED TO TACKLE SOME TARGETS IN SUM 2** Copyright and Ownership (https://projectevolve.co.uk/toolkit/years/year-three/copyright-and-ownership/) **LOOK TO COVER ALL TARGETS IN ONE LESSON THE BEST YOU CAN.**	E-Safety x 2 LESSONS Privacy and Security (https://projectevolve.co.uk/toolkit/years/4/privacy-and-security/) **LOOK TO COVER ALL TARGETS IN ONE LESSON THE BEST YOU CAN. YOU MAY NEED TO TACKLE SOME TARGETS IN SUM 2** Copyright and Ownership (https://projectevolve.co.uk/toolkit/years/4/copyright-and-ownership/) **LOOK TO COVER ALL TARGETS IN ONE LESSON THE BEST YOU CAN.**	E-Safety x 2 LESSONS Privacy and Security (https://projectevolve.co.uk/toolkit/years/5/privacy-and-security/) **LOOK TO COVER ALL TARGETS IN ONE LESSON THE BEST YOU CAN.** Copyright and Ownership (https://projectevolve.co.uk/toolkit/years/5/copyright-and-ownership/) **LOOK TO COVER ALL TARGETS IN ONE LESSON THE BEST YOU CAN.**	E-Safety x 2 LESSONS Privacy and Security (https://projectevolve.co.uk/toolkit/years/6/privacy-and-security/) **LOOK TO COVER ALL TARGETS IN ONE LESSON THE BEST YOU CAN. YOU MAY NEED TO TACKLE SOME TARGETS IN SUM 2** Copyright and Ownership (COMING SOON)
Computing Science (3 LESSONS) - Identify and list the steps of a known task in order (yr 1) - Understand that we control computers by giving them instructions (yr 1) - Create a simple program e.g. to control a sprite (yr 1) - Understand what an algorithm is (yr 1) - Create a simple algorithm (yr 1) - Identify and explain patterns in groups of objects (yr 1) - Debug an error in a simple algorithm or program e.g. in Scratch Jr (yr 1) - Predict the outcome of a simple algorithm or program (yr 1) - Understand that computers have no intelligence and we have to program them to do things (yr 1) **- Coding - (1 LESSON)** **https://barefootcas.org.uk/barefoot-primary-computing-resources/computational-thinking-approaches/tinkering/ks1-activity-scratch-junior-tinkering/** **Coding – Travelling – (2 LESSONS)** **http://code-it.co.uk/scratchjrtravelling**	Multimedia (Vision) - Create a short video joining 2 or more clips together (yr 2) - Introduce how a green screen can be used for pictures and video (yr 2) **Green Screen Video (2/3 lessons)**	Computing Science (3 LESSONS) - Understand that we can decompose a problem into smaller steps to make it simpler (yr 3) - Remix and change an existing program (yr 3) - Predict the outcome of a program, e.g. Scratch (yr 3) **http://code-it.co.uk/wp-content/uploads/2019/10/exploringsequencePLANalt.pdf (PLAN – Links inside)**	Multimedia (Sound and Vision) - To be able to use sound effects, soundtracks and titles when editing videos (yr 4) **Video editing (3 lessons)**	Computing Science (3 LESSONS) - Recognise that different solutions exist for the same problem (yr 5) - Predict what will happen in a program or algorithm (e.g. change of output) when the input changes (e.g. sensor, data or event) (yr 5) - Use two-way selection, i.e. if… then… else… (yr 5) - Create programs including repeat until loops (yr 5) - Understand the difference between and use if… then… and if… then… else… statements (yr 5) **http://code-it.co.uk/wp-content/uploads/2019/09/wizardschoicesPLAN.pdf (PLAN – Links inside)**	Video editing (3 lessons) - To create and edit an independent video project (yr 6) **– Set the children a creative challenge (linked to the topic if possible) where they need to create a video for a specific purpose (advertise something, how to video etc) They would continue to use iMovie to edit them (Green screen if needed) and they can then be exported to the cameral roll when created and saved onto the Google Drive (children can be reminded how to do this themselves)**

FEDERATION COVERAGE –

Sum 2	E-Safety x 2 repeat two of the areas judged to need further work.	E-Safety x 2 repeat two of the areas judged to need further work.	E-Safety x 2 repeat two of the areas judged to need further work.	E-Safety x 2 repeat two of the areas judged to need further work.	E-Safety x 2 repeat two of the areas judged to need further work.	E-Safety x 2 repeat two of the areas judged to need further work.
	Communication - Understand that you can edit and change digital content (yr 1) - Select basic options to change the appearance of digital content (yr 1) - Combine media with support to present information, e.g. text and images (yr 1) - Apply edits to digital content to achieve a particular effect (yr 1) **POWERPOINT (2 LESSONS)**	Communication - Plan out digital content (yr 2) - Present ideas and information by combining media independently (yr 2) - Talk about what makes digital content good or bad (yr 2) - Edit digital content to improve it (yr 2) **WORD (2 LESSONS)**	Communication - Know how to copy text and images into a another document (yr 3) - Edit existing media to make new content with an awareness of copyright (yr 3) - Evaluate existing and their own digital content (yr 3) - Edit digital content to improve it according to feedback (yr 3) **WORD (2 LESSONS)**	Communication - Design and create digital content for a specific purpose (yr 4) - Collaborate with peers using online tools, e.g. blogs, Google Drive, Office 365 (yr 4) - Collect, organise and present information effectively using a range of media (yr 4) - Use a range of tools to edit and enhance media for a particular effect (yr 4) **GOOGLE SLIDES (2 LESSONS)**	Communication (Presentation) – - Identify and use appropriate hardware and software to fulfil a specific task (yr 5) - Remix and edit a range of existing and their own media to create content (yr 5) - Recognise the audience when designing and creating digital content (yr 5) - Understand the benefits of using technology to collaborate with others (yr 5) **GOOGLE SLIDES (2 LESSONS)**	Communication - Identify success criteria for creating digital content for a given purpose and audience (yr 6) - Evaluate their own content against success criteria and make improvements accordingly (yr 6) **WORD (2 Lessons)**
	Computing Science (2 LESSONS) - Identify and list the steps of a known task in order (yr 1) - Understand that we control computers by giving them instructions (yr 1) - Create a simple program e.g. to control a sprite (yr 1) - Understand what an algorithm is (yr 1) - Create a simple algorithm (yr 1) - Identify and explain patterns in groups of objects (yr 1) - Debug an error in a simple algorithm or program e.g. in Scratch Jr (yr 1) - Predict the outcome of a simple algorithm or program (yr 1) - Understand that computers have no intelligence and we have to program them to do things (yr 1) **Coding – Dancing** - http://code-it.co.uk/scratchjrdance	Computing Science (3 LESSONS) - Understand that the order of instructions in an algorithm is important (yr 2) - Understand that instructions in an algorithm need to be clear and unambiguous (yr 2) - Evaluate the success of an algorithm or program (yr 2) - Identify and correct errors in a given algorithm or program (debugging) (yr 2) **Barefoot Coding – Scratch Tinkering Activity** - https://barefootcas.org.uk/barefoot-primary-computing-resources/computational-thinking-approaches/tinkering/key-stage-1-2-activity-scratch-tinkering/ **Coding –Magic Carpet** http://code-it.co.uk/carpet	Computing Science (3 LESSONS) - Understand that we can decompose a problem into smaller steps to make it simpler (yr 3) - Remix and change an existing program (yr 3) - Predict the outcome of a program, e.g. Scratch (yr 3) - Use diagrams to represent an algorithm, e.g. a flowchart (yr 3) http://code-it.co.uk/wp-content/uploads/2020/04/sequenceandinputsPLAN.pdf **(PLAN – Including links)**	Computing Science (3 LESSONS) - Use repetition to make programs more efficient (yr 4) - Use forever loops in a program (yr 4) - Create a program using a range of events/inputs to control what happens (yr 4) - Decompose a problem and create a solution for each step (yr 4) http://code-it.co.uk/wp-content/uploads/2019/06/continuousloopsgamePLAN.pdf **(PLAN – Including links)**	Computing Science (3 LESSONS) - Recognise that different solutions exist for the same problem (yr 5) - Predict what will happen in a program or algorithm (e.g. change of output) when the input changes (e.g. sensor, data or event) (yr 5) - Use two-way selection, i.e. if… then… else… (yr 5) - Create programs including repeat until loops (yr 5) - Understand the difference between and use if… then… and if… then… else… statements (yr 5) http://code-it.co.uk/wp-content/uploads/2019/06/conditionstartsactionPLAN.pdf **(PLAN)**	Computing Science (3 LESSONS) - Recognise variables in a program (yr 6) - Create simple variables, e.g. to keep score or remove lives in a game (yr 6) - Combine a variable with relational operators (< = >) to determine when a program changes, e.g. if score > 5, say "well done" (yr 6) http://code-it.co.uk/wp-content/uploads/2019/06/ShapeVariablesPlan.pdf **(PLAN – Including links)**

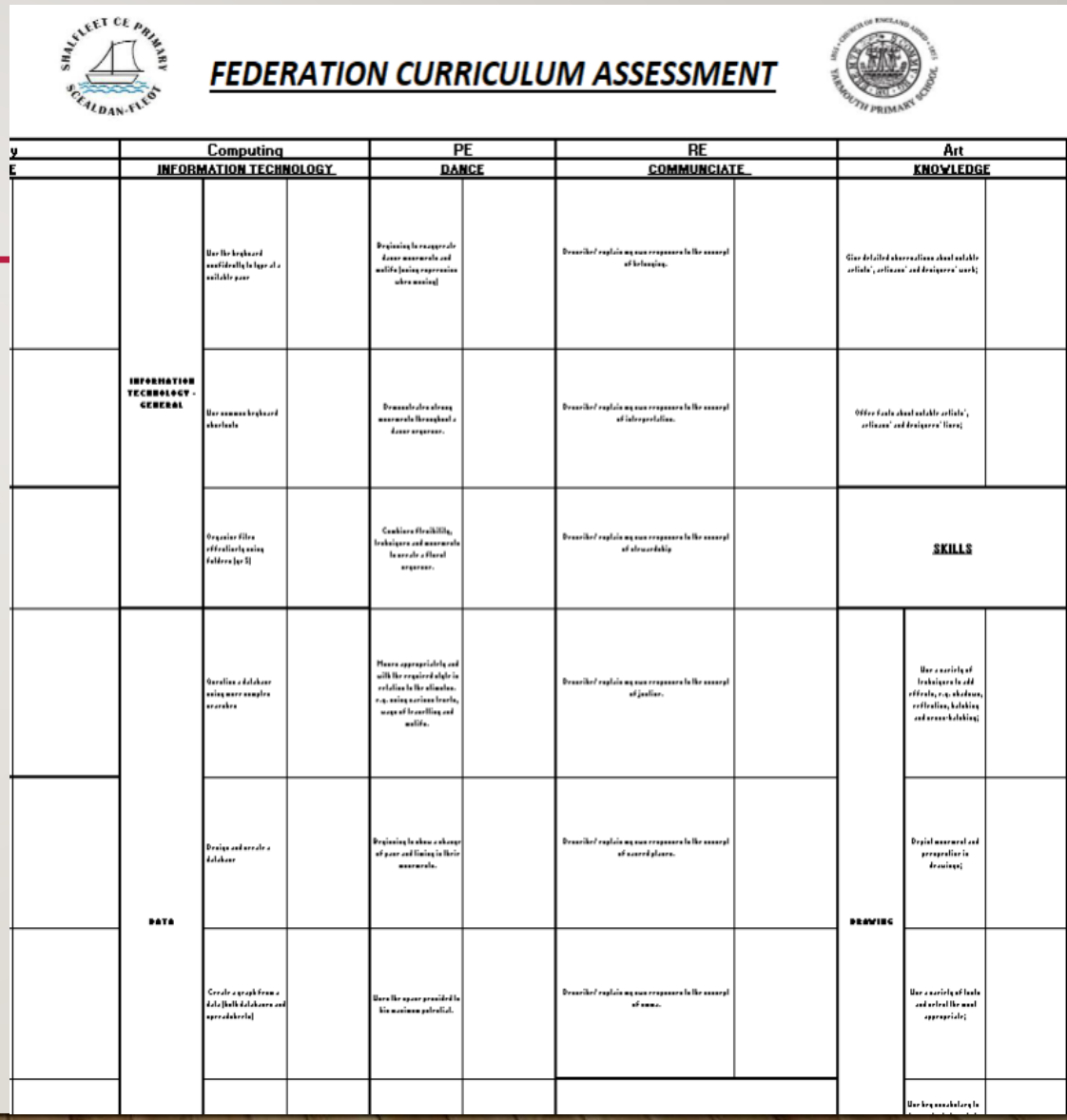
OUR IMPLEMENTATION - ASSESSMENT

Class teachers use assessment to track the achievements of pupils through the computing subsections. This can influence next steps for pupils and the level of support needed.
I will use assessment to analyse summative data through the monitoring and evaluating process.

Key computing targets for each sequence of lessons and children should be assessed against these.

The assessment model is designed to support all pupils to access the computing curriculum and also challenge higher attaining pupils.

The assessment of computing is supported by the targets from the computing progression map and the assessment document is designed to support staff with accurate assessment measures by identifying children who have achieved targets and importantly inputting the names that have yet to achieve a target.



FEDERATION CURRICULUM ASSESSMENT

	Computing		PE	RE	Art	
	INFORMATION TECHNOLOGY		DANCE	COMMUNCIATE	KNOWLEDGE	
	INFORMATION TECHNOLOGY - GENERAL					
					SKILLS	
	DATA				DRAWING	

FEDERATION CURRICULUM ASSESSMENT

Key area of subject

Individual target

Insert names of individuals not achieving target

Key sub-area of subject

	Computing		PE	RE	Art	
	INFORMATION TECHNOLOGY		DANCE	COMMUNCIATE	KNOWLEDGE	
	INFORMATION TECHNOLOGY - GENERAL	Use the keyboard confidently to type at a suitable pace	Projecting in exaggerated dance movements and motifs [using expressions when moving]	Describe/ explain my own responses to the concept of belonging.	Give detailed observations about suitable artists', artisans' and designers' work;	
		Use common keyboard shortcuts	Demonstrate clear strong movements throughout a dance sequence.	Describe/ explain my own responses to the concept of interpretation.	Offer facts about suitable artists', artisans' and designers' lives;	
		Organise files effectively using folders [yr 5]	Combine flexibility, techniques and movements to create a flowed sequence.	Describe/ explain my own responses to the concept of responsibility	SKILLS	
	DATA	Organise a database using more complex searches	Moves appropriately and with the required style in relation to the stimulus, e.g. using various levels, ways of travelling and motifs.	Describe/ explain my own responses to the concept of justice.	DRAWING	Use a variety of techniques to add effects, e.g. shadows, reflection, labeling and cross-hatching;
		Design and create a database	Projecting to show a change of pace and timing in their movements.	Describe/ explain my own responses to the concept of sacred places.		Depict movement and proportion in drawings;
		Create a graph from a data [bulk database and spreadsheets]	Uses the space provided in his movement potential.	Describe/ explain my own responses to the concept of sense.		Use a variety of tools and select the most appropriate;
						Use key vocabulary to

MONITORING AND EVALUATING

Impact of the implementation of the computing curriculum is measured in a variety of ways.

These include:

- **Pupil conferencing**
- **Work Scrutiny – alongside teacher's planning**
- **Assessment data**
- **Learning walks**
- **Learning environment**

EVIDENCE ATTAINED FROM THESE FOLLOWS ON THE NEXT SLIDES (SPLIT INTO YEAR GROUPS)

NEXT STEPS – 2020-21

NEXT STEPS	INDIVIDUALS/ TEAM	ACTIONS
To capture pupil voice on the subject and the delivery of the learning	Subject lead	- Create questionnaires (adapted for each key stage) in order to capture pupil voice. - Use leadership time to go to both school sites and capture the pupils views - Use the views of the pupils to reflect on the subject within the federation and create actions based on the children's views.
To prioritise gathering evidence of learning in areas most affected by the pandemic (e.g. How a computer works)	Subject lead/teachers	- Disseminate to the teachers areas which were the strongest for coverage and evidence last year. - Outline the importance of the areas that need the coverage. - Guide the teachers on the use of assessment documents to identify the relevant targets that need to be addressed within the focus areas. - Outline that these will be a focus of planning and work scrutiny.

NEXT STEPS – PT 2

NEXT STEPS	INDIVIDUALS/ TEAM	ACTIONS
To ensure all new computing equipment (from Freshwater) has all relevant software on.	Subject lead/IT manager	- Review iPads and laptops for key software such as Scratch and Scratch JR. - Give the IT manager a list of software required for the curriculum. - Follow up with the IT manager if there are any issues with the software.
To observe the teaching of computing (something not possible last year due to bubbling)	Subject lead	- To make time to schedule in one computing observation of each class in the federation. - To inform teachers ahead of time when these observations will be. - To observe the classes. - To give feedback along specific criteria decided beforehand based on planning and the lesson area (e.g. digital literacy or computing science). - To follow up with the class teacher to see evidence of the feedback being followed up.

NEXT STEPS – PT 3

NEXT STEPS	INDIVIDUALS/ TEAM	ACTIONS
To set up a consistent VPN connection to allow file access	Subject lead/IT Manager	- To notify the IT manager of the need for a VPN - Allow the IT manager access to the laptop to set up the VPN - To use the VPN to access the pupil documents in order to access files directly for work scrutiny. - To use the files as evidence in the portfolios. - To use the files to give more detailed work scrutiny feedback to teachers.