St Cuthbert's
ROMAN CATHOLIC ACADEMY TRUST

St Peter's VC Academy

Computing Curriculum

GROWING IN FAITH

ST PETER'S
VC ACADEMY

Intent

Computer science opens up for the learners the possibility of being key influencers and transformational leaders at a local, national and global level. The development of computational thinking and operational skills calls for the formation of learners who prioritise the importance of justice, equality, truth and the common good of all people at a global level.

At our school we want pupils to be MASTERS of technology. Technology is everywhere and will play a pivotal part in pupils' lives. Therefore, we want to model and educate our pupils on how to use technology positively, responsibly and safely. We want our pupils to be creators and our broad curriculum encompassing computer science, information technology and digital literacy reflects this. We want our pupils to understand that there is always a choice with using technology and as a school we utilise technology to model positive use. We recognise that the best prevention for a lot of issues we currently see with technology/social media is through education. Building our knowledge in this subject will allow pupils to effectively demonstrate their learning through creative use of technology. We recognise that technology can allow pupils to share their learning in creative ways. We also understand the accessibility opportunities technology can provide for our pupils. Our knowledge rich curriculum has to be balanced with the opportunity for pupils to apply their knowledge creatively which will in turn help our pupils become skilful computer scientists. We encourage staff to try and embed computing across the whole curriculum to make learning creative and accessible. We want our pupils to be fluent with a range of tools to best express their understanding and hope by Upper Key Stage 2, children have the independence and confidence to choose the best tool to fulfil the task and challenge set by teachers.

Our aims for Computing at St. Peter's VC Academy Primary are:

- To instil an enthusiasm and appreciation of computing via engaging and well-planned lessons, allowing children to use their skills to develop and create new ideas.
- To follow a scheme of work, in conjunction with the National Curriculum, which provides progression and a breadth of knowledge across all year groups.
- To ensure that teaching staff continue to access the opportunities to attend relevant CPD in order to deliver sessions with confidence and help identify areas in which they can use computational skills within a cross-curricular approach (as part of their termly topics, for example.)
- To identify real world examples and creative challenges in which pupils can explore and extend their understanding of the fundamental principles and concepts of Computing.
- To ensure that pupils develop a respectful and responsible attitude towards using information and communication technology, especially with regards to their own and other's safety.

To provide a safe space in which pupils can navigate and interact with the digital world, whilst exploring their own personal expression and identity.

At the end of Foundation at St Peter's	**At the end of KS1 at St Peter's**	**At the end of KS2 at St Peter's**
Pupils are taught - That a range of technology is used in places such as school and home. To select and use technology for purposes.	Pupils are taught - To use technology with purpose to create, store, organise, retrieve and manipulate digital content. To learn to make a range of simple digital assets such as presentations, movies, audio	Pupils are taught - To independently select, use and combine a wide range of software on a variety of devices. To design and create a range of digital assets such as programs, systems and

Collect information as photos or sound files. To use a simple pictogram or set of photos to count and organise information. To help adults operate equipment around the school, independently operating simple equipment. To use simple software to make things happen. To press buttons on a floor robot and talk about the movements. To explore options and make choices with toys, software and websites. To use a mouse or trackpad to rearrange objects and pictures on a screen. To recognise text, images and sound when using ICT. To use a camera or sound recorder to collect photos or sound. To use paint programs to create pictures. To begin to use a keyboard to type own name and login to a computer. To develop an interest in ICT by using age appropriate websites or programs	files and graphs. To navigate the web and carry out simple searches using suitable search engines and begin to understand that not everything on the internet is true. To use simple simulations and understand how they work. To use algorithms and know that they can be implemented as programs on devices. To know what debugging is and find errors in their programs. To understand that programs execute by following a precise set of instructions. To create simple programs and further develop their strategies and logical thinking to find bugs and predict outcomes in their algorithms and programs.	multimedia content for a defined purpose and audience. To use advanced searches including the use of operators. To create spreadsheet models to investigate real life problems, using their knowledge to make predictions. To know how search engines work and what 'ranking' is when related to search engines. To design and create more complex programs using sequence, repetition, selection and variables appropriately. To develop their computational thinking can demonstrate that they can decompose and evaluate their tasks and correct errors in their algorithms and programs. To be confident in their knowledge of inputs and outputs and plan and write programs to solve tasks to control external devices such as sensors and motors. To know how different computer networks work, including the roles of the components and the opportunities and benefits that they offer for communication and collaboration. To understand the difference between the internet and internet services.

Implementation

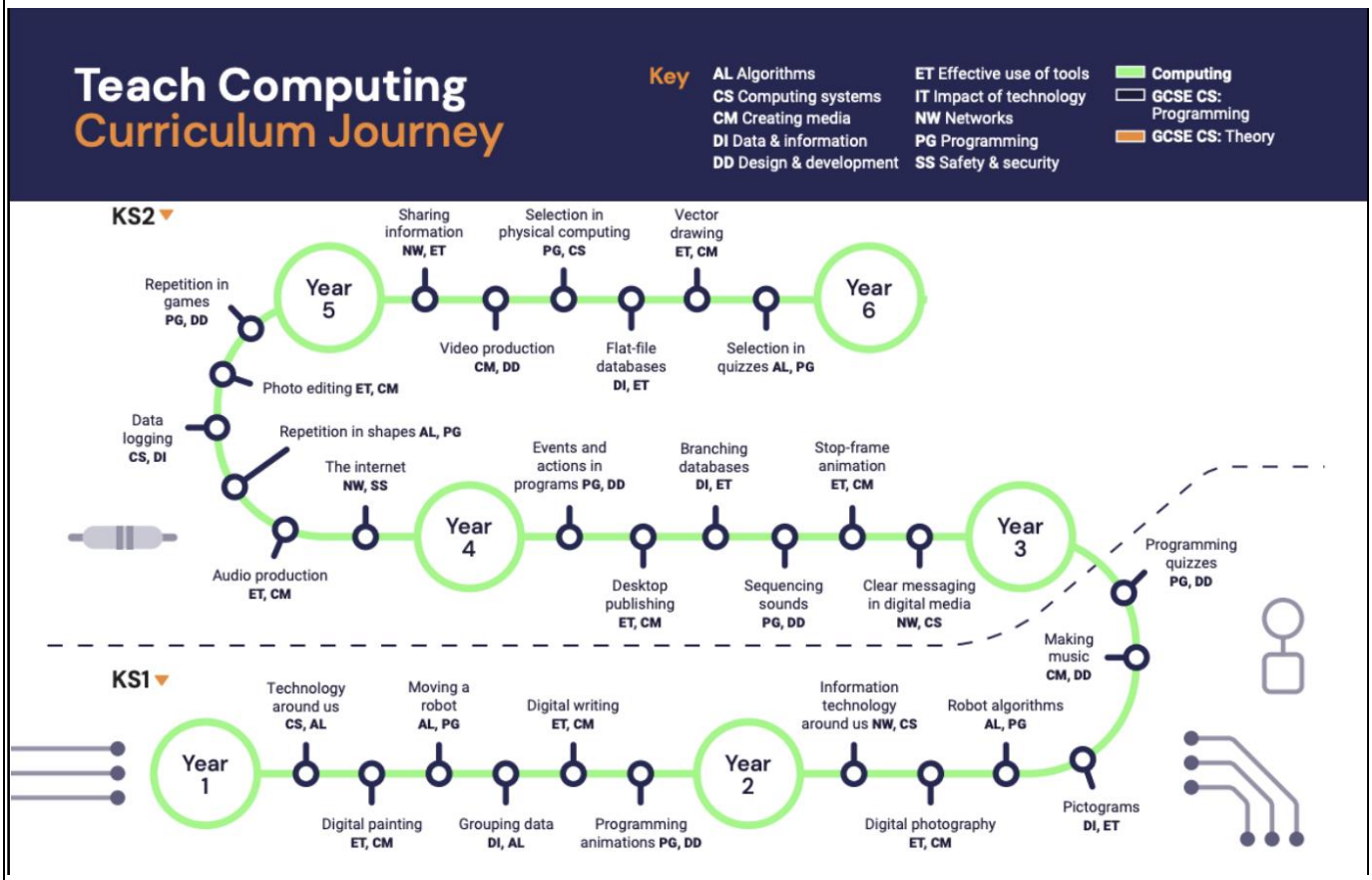
Pedagogy: How the Curriculum is Taught

At St.Peter's VC Academy, we follow the 'Teach Computing' scheme of work which covers all aspects of the National Curriculum. This scheme was chosen as it has been created by subject experts and based on the latest pedagogical research. It provides an innovative progression framework where computing content (concepts, knowledge, skills and objectives) has been organised into interconnected networks called learning graphs.

The curriculum aims to equip young people with the knowledge, skills and understanding they need to thrive in the digital world of today and the future. The curriculum can be broken down into 3 strands: computer science, information technology and digital literacy, with the aims of the curriculum reflecting this distinction.

This scheme of work gives full coverage of the national curriculum for computing aims to ensure all pupils:

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



A key part of implementing our computing curriculum is to ensure that safety of our pupils is paramount. We take online safety very seriously and we aim to give children the necessary skills to keep themselves safe online. Children have a right to enjoy childhood online, to access safe online spaces and to benefit from all the opportunities that a connected world can bring them, appropriate to their age and stage. Online safety and responsible use of technology are topics covered in computing and PSHE lessons, assemblies and during events such as Safer Internet Day.

To help with our implementation of the computing curriculum we have a variety of hardware available, including:

- Chrome books
- iPads
- Micro-bits
- Bee-bots
- Programmable mice

All children are provided with Google Education Suite accounts and Seesaw accounts. These ensure work can be accessed in school and remotely.

Technical support is provided by our experts at Primary Tech who regularly visit school.

Impact

Assessment

We use a multi-faceted approach to assessment within computing.

- End of study quizzes built within every study to ascertain knowledge.
- Retrieval practice to take place at the beginning of every lesson.
- Assessment for learning is used within each lesson through skilful use of questioning and live feedback.
- Pupil voice to support the evidence that pupils know and remember more over time.
- Computing reports facilitate pupils to independently apply appropriate substantive & disciplinary knowledge of pupils developing in thinking like a designer. These begin in EYFS with verbalising answers to a question at the end of a topic and continue throughout every year group.
- Knowledge Organisers are used to introduce new learning and vocabulary, they are used by children to refer back to embed their knowledge and understanding. These are also shared with parents, enabling them to support their children.

Cultural Capital

Enrichment is an essential part of the St Peter's Computing Curriculum which provides pupils with discrete time to focus and deepen their learning, they provide opportunities for new experiences as well as nurturing and developing a thirst for learning.

- STEM workshops
- A cross-curricular approach with Design and Technology sessions

Career Professional Development

We develop strong subject knowledge amongst all staff which is achieved through; comprehensive middle leadership development, a focus on developing all teachers' subject knowledge and computing pedagogy. All staff have taken part in specific year group training with Teach Computing and the Computing Coordinator attends regular Teach Computing meetings. Staff are emailed a list of regular training that they are able to attend locally and online to develop skills and subject knowledge.

Study Overview

<table>
<tr><th></th><th colspan="2">Autumn</th><th colspan="2">Spring</th><th colspan="2">Summer</th></tr>
<tr><td>EYFS</td><td colspan="6">Children explore their computing understanding through: the structure and routine of the day, child led learning, the carefully planned learning environment and planned and sequenced, adult directed learning opportunities.
Pumpkin Soup
Junk Modelling
Boats
Coverage of these three units should be covered across the year to link with the cross curricular nature of the EYFS and to support pupils' understanding of computational thinking and algorithms.</td></tr>
<tr><td>KS1</td><td colspan="6">NC- Pupils should be taught to:
understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions
create and debug simple programs
use logical reasoning to predict the behaviour of simple programs
use technology purposefully to create, organise, store, manipulate and retrieve digital content
recognise common uses of information technology beyond school
use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.</td></tr>
<tr><td>Y1</td><td>Technology around us
NC- use technology purposefully to create, organise, store, manipulate and retrieve digital content. Use technology safely and respectfully. Use technology purposefully</td><td>Digital Painting
NC- use technology purposefully to create, organise, store, manipulate and retrieve digital content</td><td>Moving a robot
NC- understand what algorithms are. create and debug simple programs. Use logical reasoning to predict the behaviour of simple programs. Recognise common uses of information technology beyond school.</td><td>Grouping data
NC- Use technology purposefully to create, organise, store, manipulate, and retrieve digital content Use technology safely and respectfully.</td><td>Digital writing
NC- Use technology purposefully to create, organise, store, manipulate, and retrieve digital content Use technology safely and respectfully, keeping personal information private.</td><td>Programming animations
NC- Understand what algorithms are Create and debug simple programs Use logical reasoning to predict the behaviour of simple programs.</td></tr>
</table>

Y2	**Information technology around us** NC- 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	**Digital Photography** NC- Use technology purposefully Recognise common uses of information technology beyond school Use technology safely and respectfully	**Robot algorithms** **NC-** Understand what algorithms are Create and debug simple programs Use logical reasoning to predict the behaviour of simple programs	**Pictograms** NC- use technology purposefully use technology safely and respectfully	**Making music** NC- Use technology purposefully	**Programming quizzes** NC- Understand what algorithms are Create and debug simple programs Use logical reasoning to predict the behaviour of simple programs Use technology purposefully
KS2	**NC- Pupils should be taught to:** ● design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts ● use sequence, selection, and repetition in programs; work with variables and various forms of input and output ● use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs ● understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration ● use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content ● select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information ● use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.					

Y3	**Connecting Computers** NC- use sequence, selection, and repetition in programs understand computer networks select, use and combine a variety of software	**Stop frame animation** NC- Select, use and combine a variety of software use technology safely, respectfully and responsibly	**Sequencing sounds** NC- Design, write, and debug programs Use sequence, selection, and repetition in programs Use logical reasoning to explain how some simple algorithms work Select, use and combine a variety of software	**Branching databases** NC- select, use and combine a variety of software Use technology safely, respectfully and responsibly	**Desktop publishing** NC- Use search technologies effectively Select, use, and combine a variety of software	**Events and actions in programs** NC- Design, write and debug programs Use sequence, selection, and repetition in programs Select, use and combine a variety of software
Y4	**The internet** **NC-** Understand computer networks including the internet. Use search technologies effectively. Select, use, and combine a variety of software. Use technology safely, respectfully, and responsibly.	**Audio editing** **NC-** Use search technologies effectively. Select, use, and combine a variety of software Use technology safely, respectfully, and responsibly	**Repetition in shapes** NC- Design, write and debug programs Use sequence, selection, and repetition in programs Use logical reasoning to explain how some simple algorithms work Select, use and combine a variety of software	**Data logging** **NC-** Use sequence, selection, and repetition in programs Select, use, and combine a variety of software	**Photo editing** NC- Select, use, and combine a variety of software Use technology safely, respectfully, and responsibly	**Repetition in games** **NC-** Design, write, and debug programs that accomplish specific goals Use sequence, selection, and repetition in programs Use logical reasoning to explain how some simple algorithms work Select, use and combine a variety of software
Y5	**Sharing information** NC- Understand computer networks. Use search technologies effectively.	**Video editing** **NC-** Use search technologies effectively. Select, use, and combine a variety of software. Use technology safely,	**Selection in physical computing** NC- Design, write, and debug programs. Use sequence, selection, and repetition in programs.	**Flat file data basis** **NC-** Use search technologies effectively. Select, use, and combine a variety of software.	**Vector drawing** NC- Select, use, and combine a variety of software.	**Selection in quizzes** **NC-** design, write and debug programs that accomplish specific goals. use sequence, selection, and repetition in programs

		respectfully, and responsibly.	Use logical reasoning to explain how some simple algorithms work. Select, use, and combine a variety of software.			use logical reasoning to explain how some simple algorithms work select, use and combine a variety of software
Y6	**Internet communication** **NC-** Understand computer networks, including the internet Select, use and combine a variety of software Use technology safely, respectfully and responsibly	**Webpage creation** **NC-** Use search technologies effectively Select, use, and combine a variety of software use technology safely, respectfully, and responsibly	**Variables in games** **NC-** Design, write and debug programs Use sequence, selection, and repetition in programs Use logical reasoning to explain how some simple algorithms work Select, use and combine a variety of software	**Introduction to spreadsheets** **NC-** Select, use, and combine a variety of software.	**3D modelling** **NC-** Select, use, and combine a variety of software Use technology safely, respectfully, and responsibly	**Sensing** **NC-** Design, write, and debug programs Use sequence, selection, and repetition in programs Use logical reasoning to explain how some simple algorithms work Select, use and combine a variety of software

Progression
Skills & Knowledge

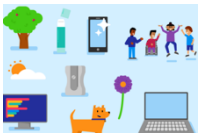
Skill domains: Digital Literacy EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Talk about good & bad choices in real life e.g. taking turns, saying kind things, helping others, telling an adult if something upsets you. Play appropriate games on the Internet. Talk about good and bad choices when using websites – being kind, telling a grown up if something upsets us & keeping ourselves safe by keeping information private. Children can recognise that a range of technology is used in places such as homes and schools.	• Recognise common uses of information technology beyond school. • Understand the rules and responsibilities outlined by the school's internet safety policy and begin to understand where to go for help when they have concerns. • Develop an understanding of how to keep their personal information private and understand they need to use technology safely and respectfully.	Know their responsibilities from their school's internet safety policy and how to report any concerns they have. Recognise situations using technology and the internet involving content and contact that are not safe and know where to go for help. Begin to develop an understanding of the importance of computers and the internet to communicate. Develop their knowledge of the technology used in everyday life in a range of situations and be able to discuss their ideas.	• Use technology safely and respectfully and have an understanding of how to keep information secure. • Realise the importance of reporting any concerns they have using the internet and other communication technologies, and know some ways in which they can do it. • Develop an understanding of what is acceptable and unacceptable online behaviour. • Realise that not all information on the internet is trustworthy and there is a need to verify its reliability.	• Use technology respectfully, responsibly and safely, knowing how to keep their information and passwords secure. • Know different ways of reporting concerns about content and contact involving the internet and other communication technologies. • Have a greater understanding of what is acceptable and unacceptable online behaviour. • Start to develop strategies to verify the reliability and accuracy of information on the internet and develop an awareness of copyright.	• Use technology safely, respectfully and responsibly and continue to develop skills to identify risks involved with contact and content including developing an understanding of digital footprints. • Know a range of ways of reporting concerns about content and contact involving the internet and other communication technologies. • Understand what acceptable and unacceptable online behaviour is. • Use strategies to verify the reliability and accuracy of information on the internet and understand copyright.	• Be competent users of technology using it safely, respectfully and responsibly and know about digital footprints and 'strong' passwords. • Demonstrate that they can identify the risks involved with content and contact and they know a wide range of ways of reporting any concerns they have. • Understand what acceptable and unacceptable online behaviour is. • Use strategies to verify and evaluate the reliability and accuracy of information on the internet and understand what copyright and plagiarism is and how it relates to their work.

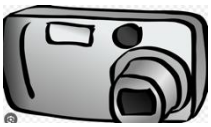
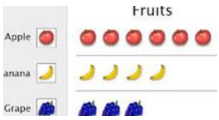
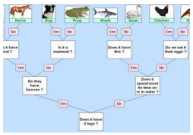
Information Technology						
Children can recognise that a range of technology is used in places such as homes and schools. They select and use technology for purposes. Recognise purposes for using technology in school and at home. Collect information as photos or sound files. Use a simple pictogram or set of photos to count and organise information.	• Use technology with support, to create, store and retrieve digital content such as text and images. • Use a simple search to find information or files. • Develop understanding of how simulations work through exploring simple examples.	• Use technology with purpose to create, store, organise, retrieve and manipulate digital content. • Learn to make a range of simple digital assets such as presentations, movies, audio files and graphs. • Navigate the web and carry out simple searches using suitable search engines and begin to understand that not everything on the internet is true. • Use simple simulations and understand how they work.	• Use a variety of software and devices to create digital assets such as programs, graphs and multimedia content for a defined purpose. • Develop their search strategies further by refining their use of keywords and starting to use appropriate key phrases and questions. • Use more complex simulations and understand the effects of changing variables.	• Use and combine a variety of software and devices with increasing independence, to create a range of digital assets such as programs, databases, systems and multimedia content. • Understand how Boolean operators can change searches and select appropriate information for their tasks. • Use models and simulations to produce graphs and explore patterns and relationships.	• Select, use and combine a range of software and use a wider range of devices to create a variety of digital assets such as programs, systems, databases, spreadsheets and multimedia content for a defined purpose. • Understand about the use of operators in searching and continue developing their effective search techniques by using Boolean operators in their searches. • Create simple spreadsheet models to investigate real life problems.	• Independently select, use and combine a wide range of software on a variety of devices. • Design and create a range of digital assets such as programs, systems and multimedia content for a defined purpose and audience. • Use advanced searches including the use of operators. • Create spreadsheet models to investigate real life problems, using their knowledge to make predictions.

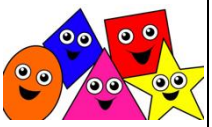
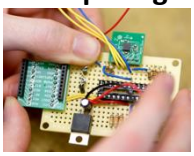
Computer Science						
Help adults operate equipment around the school, independently operating simple equipment. Use simple software to make things happen. Press buttons on a floor robot and talk about the movements. Explore options and make choices with toys, software and websites. Use a mouse or trackpad to rearrange objects and pictures on a screen. Recognise text, images and sound when using ICT. Use a camera or sound recorder to collect photos or sound. Use paint programs to create pictures. Begin to use a keyboard to type own name and login to a computer. Develop an interest in ICT by using age appropriate websites or programs.	• Understand what algorithms are and develop strategies to help find bugs in them. • Make very simple programs.	• Use algorithms and know that they can be implemented as programs on devices. • Know what debugging is and find errors in their programs. • Understand that programs execute by following a precise set of instructions. • Create simple programs and further develop their strategies and logical thinking to find bugs and predict outcomes in their algorithms and programs.	• Plan and write algorithms and programs using sequence and repetition and further develop their computational thinking strategies to solve problems and errors in their algorithms and programs. • Have knowledge and experience of using a range of different inputs and outputs. • Describe some of components of a computer network and some of the ways in which computer networks can be used.	• Design and write more complex algorithms and programs using sequence, repetition and selection. • Further develop their computational thinking to help debug their programs and design and solve problems and tasks. • Have a simple understanding of how search engines work. • Develop their understanding of inputs and outputs further, demonstrating how they can use programs to control external devices such as sensors, motors and robots. • Understand the difference between the internet and World Wide Web.	• Design and write programs using sequence, repetition, selection and variables. • Develop greater understanding of how to use selection and repetition in more complex programs. • Understand how search engines work. • Further develop their computational thinking showing they can plan and decompose tasks; explain how the algorithms they write work and correct errors in their programs. • Plan and write programs to control external devices such as sensors and motors and explain about the inputs and outputs used. • Have an understanding of how a computer network works and the opportunities that it offers for communication and collaboration.	• Know how search engines work and what 'ranking' is when related to search engines. • Design and create more complex programs using sequence, repetition, selection and variables appropriately. • Develop their computational thinking can demonstrate that they can decompose and evaluate their tasks and correct errors in their algorithms and programs. • Be confident in their knowledge of inputs and outputs and plan and write programs to solve tasks to control external devices such as sensors and motors. • Know how different computer networks work, including the roles of the components and the opportunities and benefits that they offer for communication and collaboration. • Understand the difference between the internet and internet services.

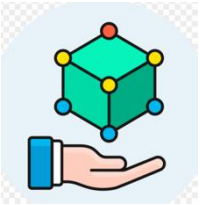
Lesson Sequence

EYFS		
Pumpkin Soup	**Junk Modelling**	**Boats**
Step 1- look at different fruits and vegetables. **Step 2-**explore a pumpkin. **Step 3-**look at a pumpkin soup recipe. **Step 4-**develop knife skills by chopping ingredients. **Step 5-**make the soup. **Step 6-**talk about what they like/dislike about the soup and why. **Assessment through observations**	**Step 1-**exploring junk modelling. **Step 2-** cutting and scissor skills. **Step 3-**choosing resources. **Step 4-**making models. **Step 5-**discuss their models. **Step 6-**present their models to the class. **Assessment through observations**	**Step 1-**waterproof materials. **Step 2-** floating and sinking. **Step 3-**investigate different types of boats. **Step 4-**investigate different shapes of boats. **Step 5-**design boats. **Step 6-**make boats. **Assessment through observations**

Y1					
Technology around us 	**Digital Painting** 	**Moving a robot** 	**Grouping data** 	**Digital writing** 	**Programming animations** 
L1-Technology in our classroom **L2-** using technology **L3-** Developing mouse skills **L4-**using a computer keyboard **L5-**Developing keyboard skills **L6-**using a computer responsibly **Quiz**	**L1-**How can we paint using computers? **L2-** using shapes and lines **L3-** Making careful choices **L4-**wht did I choose that? keyboard **L5-**painting all by myself **L6-**comparing computer art and painting **Quiz**	**L1-**buttons **L2-**directions **L3-**forwards and backwards **L4-**four directions **L5-**getting there **L6-**routes **Quiz**	**L1-**label and match **L2-**group and count **L3-**describe an object **L4-**making different groups **L5-**comparing groups **L6-**answering questions **Quiz**	**L1-**exploring the keyboard **L2-**adding and removing text **L3-**exploring the toolbar **L4-**making changes to text **L5-**explaning my choices **L6-**pencil or keyboard **Quiz**	**L1-**comparing tools **L2-**joining blocks **L3-**make change **L4-**adding sprites **L5-**project design **L6-**following my design **Quiz**

Y2					
Information technology around us 	**Digital Photography** 	**Robot algorithms** 	**Pictograms** 	**Making music** 	**Programming quizzes** 
L1-What is IT? **L2**-IT in school **L3**-IT in the world **L4**- the benefits of IT **L5**- using IT safely **L6**-using IT in different ways **Quiz**	**L1**-taking photographs **L2**-landscape or portrait **L3**-what makes a good photograph **L4**- lighting **L5**- effects **L6**-Is it real? **Quiz**	**L1**-giving instructions **L2**- same but different **L3**- making predictions **L4**- mats and routes **L5**- algorithm design **L6**- debugging **Quiz**	**L1**-counting and comparing **L2**- enter the data **L3**- creating pictograms **L4**- What is an attribute? **L5**- comparing people **L6**- presenting information **Quiz**	**L1**-how music makes us feel **L2**-rhythms and patterns **L3**-how music can be used **L4**-notes and tempo **L5**-ctreating digital music **L6**- reviewing and editing music **Quiz**	**L1**-scratch Jr recap **L2**-outcomes **L3**-using a design **L4**-changing a design **L5**-designing and creating a program **L6**- evaluating **Quiz**
Y3					
Connecting Computers 	**Stop frame animation** 	**Sequencing sounds** 	**Branching databases** 	**Desktop publishing** 	**Events and actions in programs** 
L1-How does a digital device work? **L2**-What parts make up a digital device? **L3**- How do digital devices help us? **L4**- How am I connected? **L5**- How are computers connected? **L6**- What does our school network look like? **Quiz**	**L1**-Can a picture move? **L2**-Frame by frame **L3**- What's the story? **L4**- Picture perfect **L5**- Evaluate and make it great? **L6**- Lights, camera, action! **Quiz**	**L1**- Introduction to Scratch **L2**- Programming sprites **L3**-Sequences **L4**- Ordering commands **L5**- Looking good **L6**- Making an instrument **Quiz**	**L1**-Yes or no questions **L2**-Making groups **L3**- Creating a branching database **L4**- Structuring a branching database **L5**- Using a branching database **L6**- Two ways of presenting information **Quiz**	**L1**-Words and pictures **L2**-Can you edit it? **L3**-Great template **L4**- Can you add content? **L5**-Textiles- cross stitch and applique **L6**-Lay it out **Quiz**	**L1**-Moving a sprite **L2**-Maze movement **L3**-Drawing lines **L4**- Adding features **L5**-Debugging movement **L6**-Making a project **Quiz**

Y4					
The internet 	**Audio editing** 	**Repetition in shapes** 	**Data logging** 	**Photo editing** 	**Repetition in games** 
L1-Connecting networks **L2**-What is the internet made of? **L3**- Sharing information **L4**-What is a website? **L5**-Who owns the web? **L6**-Can I believe what I read? **Quiz**	**L1**-Digital recording **L2**-Recording sounds **L3**- Creating a podcast **L4**-Editing digital recordings **L5**-Combining audio **L6**-Evaluating podcasts **Quiz**	**L1**-Programming a screen turtle **L2**-Programming letters **L3**-Patterns and repeats **L4**- using loops to create shapes **L5**-Breaking things down **L6**- Creating a program **Quiz**	**L1**-Answering questions **L2**-data collection **L3**- Logging **L4**-Analysing data **L5**-data foe answers **L6**-Answering my question **Quiz**	**L1**-Changing digital images **L2**-Changing the composition of images **L3**-Changing images for different uses **L4**- Retouching images **L5**-Fake images **L6**-making and evaluating a publication **Quiz**	**L1**-Using loops to create images **L2**-Different loops **L3**- Animate your name **L4**-Modifying a game **L5**-Designing a game **L6**-Creating our games **Quiz**
Y5					
Sharing information 	**Video editing** 	**Selection in physical computing** 	**Flat file data basis** 	**Vector drawing** 	**Selection in quizzes** 
L1-Systems **L2**-Computer systems and us **L3**-searching the web **L4**- Selecting search results **L5**- How search results are ranked **L6**- How are searches influenced **Quiz**	**L1**-What is video? **L2**-Filming techniques **L3**-using a storyboard **L4**- planning a video **L5**- Importing and editing a video **L6**- Video evaluation **Quiz**	**L1**-Connecting crumbles **L2**-Combining output components **L3**-Controling conditions **L4**- Starting with selection **L5**-drawing designs **L6**- Writing and testing algorithms **Quiz**	**L1**-Creating a paper based database **L2**-Computer databases **L3**-Using a database **L4**- Using search tools **L5**- Comparing data visually **L6**- Databases in real life **Quiz**	**L1**-The drawing tools **L2**-Creating images **L3**- Making effective drawings **L4**- Layers and objects **L5**-Manipulating objects **L6**-Create a vector drawing **Quiz**	**L1**-Exploring conditions **L2**-Selecting outcomes **L3**-Asking questions **L4**- Planning a quiz **L5**- Testing a **L6**- Evaluating.a quiz **Quiz**

Y6					
Internet communication 	**Webpage creation** 	**Variables in games** 	**Introduction to spreadsheets** 	**3D modelling** 	**Sensing** 
L1-Internet addresses **L2-**Data packets **L3-** Working together **L4-**Shared working **L5-**How we communicate **L6-** Communicating responsibly **Quiz**	**L1-**What makes a good website? **L2-**How would you layout your web page? **L3-**Copyright or copywrong? **L4-** How does it look? **L5-** Follow the breadcrumbs? **L6-** Think before you link! **Quiz**	**L1-** Introducing variables playground **L2-** Variables in programming **L3-** Improving a game **L4-** Designing a game **L5-**Design to code **L6-**Improving and sharing **Quiz**	**L1-**What is a spreadsheet? **L2-**Modifying spreadsheets **L3-**Whats the formula? **L4-** Calculating and duplicate **L5-** Event planning **L6-** Presenting data **Quiz**	**L1-** Introduction to 3D modelling **L2-**Modifying 3D objects **L3-**Make your own name badge **L4-**Making a desk tidy **L5-**Planning a 3D model **L6-** Make your own 3D model **Quiz**	**L1-**The micro:bit **L2-**Go with the flow **L3-**Sensing inputs **L4-** Finding your way **L5-** Designing a step counter **L6-** Making a step counter **Quiz**