



Learning in Computing at St Margaret Mary's

We try to follow Jesus in everything we do.

Why is Computing important at St Margaret Mary's?

Intent

Our Computing and Information Technology curriculum has been specifically tailored to meet the needs of our school community. It is designed to be broad and balanced, providing all pupils with the opportunity to be curious and wise in their learning and knowledge. To be attentive and discerning in order to make sense of the world around them and give purpose as to why we learn about and from Computing. This will help them become faith filled and hopeful in their abilities to change and transform our society.

We believe that computing helps to prepare the children for life in 21st century Britain, encouraging children to develop a greater understanding of technology and the digital world around them.

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. We aim to build high levels of competence in the subject specific skills of:

- Computational thinker
- Computer programmer
- Creative user of technology
- Data producer
- Online communicator and collaborator
- Responsible digital citizen

Implementation

Computing is taught through the framework of the 2014 National curriculum. The principles and content of its requirements have been carefully placed at the heart of the school's programmes of study in computing.

The school uses the 'JE computing' Scheme of work, focusing on becoming a Computational thinker, Computer programmer, Creative user of technology, Data producer, Online communicator and collaborator and Responsible digital citizen.

ProjectEVOLVE is an online resource we use to equip our children for a digital life. This resource covers each of the statements from the UK Council for Internet Safety's framework "Education for

a Connected World". Staff use ProjectEVOLVE as an additional digital literacy resource to what is covered in our 'JE computing' Scheme of work.

These principles are directly linked to the school's Age-Related Expectations (AREs) in computing for each year group which allows a consistent application of the curriculum throughout the Key stages. A class floor book is kept for each class. The floor book provides evidence of coverage within the subject and key reference to where the children meet the A.R.E statements. Each year group has a class login and an individual login to save their work on the system.

IPADs and laptops are used throughout the school and timetabled on a weekly basis. Teachers can block their computing timetable on a half termly basis with a minimum of 2 sessions per half term.

In Computing, assessment of pupil progress is undertaken against the age-related expectations for Computing. This includes any final pieces of work and any whole class assessment that staff might undertake. The outcomes of these assessments are used by class teachers to evaluate the quality of coverage of the ARE in Computing and to inform aspects of learning that need to be strengthened to improve the quality of provision and to enhance pupil progress.

Impact

A high quality of computing education aims to develop a range of programming and technological skills that are transferable to other curriculum areas, including Science, Mathematics, English and History.

As they progress through primary school children will become increasingly confident in:

- The application of their digital skills,
- Becoming increasingly efficient and effective communicators, collaborators and analysts,
- Showing imagination and creativity in their use of ICT in different aspects of their learning and life beyond school.
- E-safety and the risks involved when using the internet.

We seek to inspire in children a love of computing and the aims of computing is to equip children with the skills necessary to use technology to become independent learners. The teaching style that we adopt is as active and practical as possible.

Computing Long Term Plan

JE computing

* highlighted cells are iPad units

	I'm a computational thinker (.1)	I'm a computer programmer (.2)	I'm a creative user of technology (.3)	I'm a data producer (.4)	I'm a online communicator and collaborator (.5)	I' a responsible digital citizen (.6)
EYFS	<p>Project theme: Making a stop start animation</p> <p>Recommended iPad App: I Can Animate, GreenScreen DoInk (optional)</p>	<p>Project theme: Making an instructional photo video story</p> <p>Recommended iPad App: Shadow Puppet Edu</p>	<p>Project theme: Making an eBook</p> <p>Recommended iPad App: Book Creator</p>	<p>Project theme: Making a pictogram poster</p> <p>Recommended iPad App: Pic Collage</p>	<p>Project theme: Making a version of Pokemon Go</p> <p>Recommended iPad App: Aurasma</p>	<p>Project theme: Making a super hero safety video</p> <p>Recommended iPad App: Morfo</p>
Year 1	<p>*NCE unit</p> <p><u>Programming B introduction to animation</u></p>	<p>Project: Can you program a BeeBot (!)?</p> <p>Software/App: BeeBot</p> <p>Alternative Software/ App: Probot, BeeBot app, Roamer, Cubetto</p>	<p>Project: Can you create a photo story?</p> <p>Software/App: Videolicious, tfalo AR(optional)</p> <p>Alternative Software/ App: Shadow Puppet (iPad), Animoto (iPad), Photostory 3 (Windows), 2Simple create a story</p>	<p>Project: Can you create a poster showing how different technology is used?</p> <p>Software/App: PicCollage</p> <p>Alternative Software/ App: Word (Windows), Pages (Mac)</p>	<p>*NCE unit (developing basic digital skills) Either <u>Digital Writing</u> or <u>Digital Painting</u></p>	<p>Project: Can you create an internet safety poster?</p> <p>Software/App: Comic Life Alternative Software/App: Strip Designer (iPad)</p>
Year 2	<p>Project: Can you make an instruction video?</p> <p>Software/App: iPad camera, GreenScreen</p>	<p>Project: Can you program an animation?</p> <p>Software/App: Scratch Jnr</p>	<p>Project: Can you create an animation?</p> <p>Software/App: Explain Everything</p>	<p>Project: Can you collect and record data?</p> <p>Software/App:</p>	<p>Project: Can you use an online learning space?</p> <p>Software/App: Edmodo</p>	<p>Project: Can you use a web search engine to save pictures to use in a presentation?</p>

	<p>Doink Halo AR (optional)</p> <p>Alternative Software/ App: MovieMaker (Windows), iMovie (Apple)</p>	<p>Alternative Software/ App: Espresso Coding, 2code (part of 2simple/ Purple Mash).</p>	<p>Alternative Software/ App: Screencast-O- Matic PowerPoint (Windows) Keynote (Mac)</p>	<p>Doodle Buddy, Pic Collage</p> <p>Alternative Software/ App: 2investigate (part of 2Simple/Purple Mash).</p>	<p>Alternative Software/ App: Google Classroom, Office 365</p> <p>*alternative NCCE unit Making Music</p>	<p>Software/App: tfaiku Deck</p> <p>Alternative Software/ App: Powerpoint/ Keynote, Notebook</p>
Year 3	<p>Project: Can you build efficient algorithms to get the robot to its destination?</p> <p>Software/App: A.L.E.X, Strip Designer</p> <p>Alternative Software/ App: 2DIY (2simple/ Purple Mash)</p>	<p>Project: Can you program an animated story?</p> <p>Software/App: Scratch</p>	<p>Project: Can you design and publish an online flyer?</p> <p>Software/App: Smore</p> <p>Alternative Software/App: Canva</p> <p>*alternative NCCE unit Desktop Publishing</p>	<p>Project: Can you publish an online poll and then present the results?</p> <p>Software/App: www.poll-maker.com Gmail (or access to other pupil email accounts)</p>	<p>Project: Can you create a QR code based quiz for others to play?</p> <p>Software/App: www.qrstuff.com Word/Pages/ Notepad, QRReader (iPad app)</p>	<p>Project: Can you demonstrate understanding of how search engines and the world wide web works?</p> <p>Software/App: TopTrumpit</p> <p>Alternative Software/ App: Word (Windows) Pages (Mac)</p>
Year 4	<p>Project: Can you make an eBook that shows how computer games work?</p> <p>Software/App: Flappy Birds, Angry Birds, Book Creator</p> <p>Alternative Software/ App: Word/Pages, Adobe Acrobat Pro</p>	<p>Project: Can you Program an 'Angry Birds' style computer game?</p> <p>Software/App: Scratch</p> <p>*alternative NCCE unit Repetition in shapes (could do instead of unit 4.1)</p>	<p>Project: Can you make an educational game/ app for children in early years?</p> <p>Software/App: TinyTap</p> <p>Alternative Software/App: 2DIY/Purple Mash</p>	<p>Project: Can you Create an interactive PowerPoint slideshow, that uses hyperlinks to sort and identify information?</p> <p>Software/App: PowerPoint (Windows), Keynote (Mac)</p>	<p>*NCCE unit Photo Editing</p>	<p>Project: Can you make an eBook about how the internet works?</p> <p>Software/App: Book Creator</p> <p>Alternative Software/ App: Powerpoint/ Keynote, Smart Notebook</p>
Year 5	<p>Project: Can you effectively remix somebody else's work?</p>	<p>Project: Can you program an effective platform game?</p>	<p>Project: Can you record an interesting podcast?</p>	<p>Project: Can you use spreadsheet tools to create a maths quiz?</p>	<p>Project: Can you publish your own blog?</p>	<p>Project: Can you create an eSafety resource for a specific audience?</p>

	<p>Software/App: Scratch</p>	<p>Software/App: Kodu, Screencast-O-Matic</p> <p>Alternative Software/App (Mac): Game Editor, Tululoo Game Maker, CraftStudio.</p>	<p>Software/App: Garageband, iTunes</p> <p>Alternative Software/App: Audacity (Windows), Audioboo (iPad app), Garageband (iPad app), anchor.fm</p>	<p>Software/App: Excel (Windows), Numbers (Mac)</p> <p>Alternative Software/App: Numbers (iPad app), Google Sheets (part of Gsuite)</p>	<p>Software/App: Primary Blogger (paid), Edublogs (free)</p> <p>Alternative Software/App: Kids Blog, Primary Blogger</p>	<p>Software/App: Free Choice</p> <p>*alternative NCCE unit Vector Drawing (could also do instead of unit 6.1)</p>
Year 6	<p>Project: Can you write text based code using Python?</p> <p>Software/App: Python</p>	<p>Project: Can you program a maths quiz?</p> <p>Software/App: Scratch</p>	<p>Project: Can you create an eye-catching movie trailer?</p> <p>Software/App: iMovie App, tFALO AR</p> <p>Alternative Software/App: MovieMaker (Windows), iMovie (Mac)</p>	<p>Project: Can you conduct market research and present on your findings?</p> <p>Software/App: Google Forms</p> <p>Alternative Software/App: Survey Monkey</p>	<p>Project: Can you publish a website with an embedded assessment form included?</p> <p>Software/App: Weebly, Google Drive (Gsuite)</p> <p>Alternative Software/App: Google Sites</p>	<p>Project: Can you create and publish a mobile app?</p> <p>Software/App: Appshed</p> <p>*alternative NCCE unit 3D Modelling using Tinkercad (could also do instead of unit 6.1)</p>

What Computing looks like at St Margaret Mary's

What a computing lesson looks like at our school:

Computing is delivered using the 'JE Computing' live scheme and supported by specialist computing teacher Jamie Emondson (owner and developer of JE computing live scheme). We also use the NCCE computing scheme as an addition and/or alternative within some of the JE computing units.

Jamie Emondson supports teachers with planning, adapting, team teaching and assessment of the computing curriculum 0.5 of the weekly timetable.

Planning:

Planning and support material information is provided within the JE computing live scheme. Teachers have the freedom to link the computing units with cross curricular subjects and topics.

Planning is progressive across each key stage and is provided to support the teaching and delivery of each unit, along with tutorial videos and supporting materials.

Key stage 1, lower key stage 2 and upper key stage 2 map out the units they intend on teaching across a two year cycle. Both key stages work together and are consistent in what they teach in order to ensure ARE and coverage for the mixed and single year group classes.

The JE Computing scheme of work that we use covers the programmes of study across six unit areas:

- Computational thinker
- Computer programmer
- Creative user of technology
- Data producer
- Online communicator and collaborator
- Responsible digital citizen

These units are consistent from EYFS up to year 6.

Additional internet safety lessons are planned for and taught across the school at least every half term additional to class discussions and cross curricular lessons, for example PSHE that also covers internet safety. We use the 'ProjectEVOLVE' resource to teach our internet safety lessons each half term from EYFS to year 6 (materials used in this resource uses the statements from the UK Council for Internet Safety's (UKCIS) framework "Education for a Connected World").

Teaching

Computing is taught in afternoon blocks. Teachers plan a minimum of 2-3 afternoons per half term to teach computing (this may vary throughout the year to fit timetable of team teaching with J. Edmondson).

Within each of the six unit areas there is a series of 6 lesson plans, learning materials/resources and information on type of software/digital resource to be used, i.e. pic collage app, scratch etc, as well as a tutorial video.

One unit per half term will be taught in class across 2-3 planned 'computing afternoons'. Our expectation is for the content in each lesson to be taught in their progressive order to ensure completion of the unit.

What teaching 'looks like' for each unit will vary depended on the intended learning outcome for that specific unit. Children will learn and develop new skills using a range of media and technical resources.

Displays:

There is a whole school computing display which celebrates the children's learning from their computing and internet safety lessons. The display consists of samples of work and photographs from the children's computing lessons and a brief explanation to explain what the children have been learning.

Assessment:

Computing is taught from reception up to year 6 across six units and progress is measured from level 1 up to level 5. At the end of each unit teachers complete an assessment with ARE statements matched to the unit 'level' completed and statements that match what an emerging or exceeding pupil within the lower or higher 'levels' may be working at. Teachers complete this assessment by initialling all children at the 'level' they are working at. Teachers make assessment judgements based on their teacher knowledge, pupil's understanding of task, completion of task and criteria met, questioning and responses and samples of work/photo evidence.

A long term assessment grid is completed to show an overview of pupils attainment across the 6 units for each academic year.

Inclusion:

Computing is planned for according to the individual needs of the children - in line with the whole school policy surrounding equal opportunities and based upon our school aim to

recognise that each child is unique. There are many ways in which SEND children can access the computing curriculum including:

- Ensuring familiarity with equipment
- The use of small steps during practical tasks to ensure pupils are not overwhelmed by task or information given
- Differentiated tasks that are adapted to meet the needs of pupils
- Additional adult support to ensure the development of skills
- Suitable resources that support learning and allow full participation
- Opportunities for paired and collaborative working with peers
- Adaptations and/or additional resources may be required to support specific needs, for example, increased font sizes, screen filters to cut down glare, talking word processor, a foot-controlled mouse etc
- Use of a memory aid to support pupils revisiting the new knowledge and skills learned

Monitoring:

Computing is monitored by the subject leader throughout the year in the form of a computing floor book which is used across the school. The subject leader uses this to look at the outcomes from each half term and identify the learning and understanding taking place and establish the impact of the teaching. Monitoring and support for the teaching and delivery of the computing curriculum is also offered to staff through regular contact with computing lead, weekly technical support (from one education) and specialist computing teacher, J. Edmondson. The subject leader also uses staff and pupil voice and other evidence, e.g. displays, work in books that demonstrate pupils applying computing skills in cross curricular subjects.

Parents:

Parents are supported and encouraged to be involved in internet safety and computing workshops. We work closely with the Manchester Healthy Schools team who come into school to deliver the workshop and provide support and information. We keep parents up to date with the computing scheme and the teaching of internet safety via letter and/or email. Parents are informed of the units we use as part of our scheme and any units that may require parental consent. Parents can find useful links and information on our school website to support the use of technology at home.

Our school digital leaders also provide parents with information about computing and internet safety learning in school for example, information about competitions.

How do we know our children have made progress?

By completing the computing units and using the projectEVOLVE resource pupils at the end of each key stage should be able to apply the computing skills and knowledge they have learnt using a range of digital devices and software within their computing lesson and across other subject areas and in their everyday life. They will also be aware of internet safety, know how to be a responsible digital citizen and know where and who to go to for help and support.

Progression of skills

ELG 13 – Past and Present

- Talk about the lives of the people around them and their roles in society;
- Know some similarities and differences between things in the past and now, drawing on their experiences and what has been read in class;
- Understand the past through settings, characters and events encountered, in books read in class and storytelling.

ELG 14 – People, Culture and Communities

- Describe their immediate environment using knowledge from observation, discussion, stories, non-fiction texts and maps;
- Know some similarities and differences between different religious and cultural communities in this country, drawing on their experiences and what has been read in class;
- Explain some similarities and differences between life in this country and life in other countries, drawing on knowledge from stories, non-fiction texts and – when appropriate – maps.

Purpose

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.

KS1

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

KS2

Pupils should be taught:

- design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts

<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • 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.
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	Pre-school	Nursery	Reception	Links to KS1
Computing links	<ul style="list-style-type: none"> - Seeks to acquire basic skills in turning on and operating some digital equipment - Operates mechanical toys, e.g. turns the knob on a wind-up toy or pulls back a friction car - Shows an interest in tablets by touching icons/apps of interest - Explores how things work by touching, pressing, pulling or moving parts 	<ul style="list-style-type: none"> - Shows interest in technological toys with knobs or pulleys, real objects such as cameras, and touch screen devices such as mobile phones and tablets - <i>Can play simple games on the Interactive Whiteboard by dragging and dropping items (NR)</i> - Children can take photos on the camera - Knows that information can be retrieved from digital devices and the internet 	<ul style="list-style-type: none"> - Children can independently change games or increase levels of difficulty on games - Can create content such as a video recording, stories, and/or draw a picture on screen - Develops digital literacy skills by being able to access, understand and interact with a range of technologies - Children know to ask for help if needed 	<ul style="list-style-type: none"> - Create and debug 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

		<ul style="list-style-type: none"> - Knows to ask an adult for help when they are unsure of how to work a technical device, tablet or toy 	<ul style="list-style-type: none"> - Children know what personal information is and know that it should not be shared online - Can use the internet with adult supervision to find and retrieve information of interest to them 	content or contact on the internet or other online technology.
Year	KS1	LKS2	Year 5	Year 6
I'M A COMPUTATIONAL THINKER	<p>I know what an algorithm is.</p> <p>I can write down an algorithm for doing something</p> <p>I can write an algorithm that has steps in the right order and that follows a clear, logical sequence (it makes sense).</p> <p>I can use a video camera.</p> <p>I can use basic editing tools.</p> <p>I can suggest ways my partner can improve their algorithm (for example, by making it more clear or by suggesting a different order of steps).</p> <p>I can present myself clearly, using a loud voice and by using props to help me explain my algorithm.</p>	<p>I can design and create my own series of challenges within A.L.E.X.</p> <p>I understand what the different blocks do and am able to place them in different positions to create a series of challenging levels.</p> <p>I can design a series of challenges that have two possible solutions.</p> <p>I am able to find the shortest path for each of the challenges I have created.</p> <p>I can take screenshot pictures using the iPad and can import photos from the camera roll into Strip Designer app.</p> <p>I have created a series of answer cards which show the two possible solutions to my challenges.</p> <p>I can upload my finished work to an appropriate place, so that my teacher can print it out.</p>	<p>I can identify what is wrong with a programming script and know which blocks to change, add or take out so that the code runs according to the programmers demands ("debugging").</p> <p>I understand why certain blocks of code have been used and know what effect these have on the program running the game.</p> <p>I can think of different ways to change the features of a game.</p> <p>I can add my own modifications to an existing game, in order to change certain elements of it and improve its playability.</p> <p>I can 'remix' a game made in Scratch, according to changes I have identified and planned for.</p> <p>I can explain the modifications that I have made, justifying the reasons behind my choices.</p>	<p>I can create, save and run programs in Idle.</p> <p>I can use correct mathematical operation syntax (i.e. + - * /)</p> <p>I can execute code by using the "print" statement</p> <p>I can declare a variable e.g. dogs = 12 biscuits = 3</p> <p>I can write comments within Python code using the $\#$ symbol to help others with understanding and reading my code (I realise this is not executed as part of the actual code). e.g. <code>dogs = 12</code> $\#$the number of dogs <code>biscuits = 3</code> $\#$ the number of biscuits each dog will get <code>total = dogs*biscuits</code> <code>print total</code></p> <p>I can use mathematical operations and "print" statements with variables e.g. <code>dogs = 12</code> <code>biscuits = 3</code> total = children * sweets print total</p> <p>I can use the "raw_input (.....)" statement for text, the "_input(.....)" statement for numerical data and print sentences so that the user of my code can input data and the program will respond accordingly</p>
	<p>I understand the algorithms used to create different platform games.</p> <p>I can plan and design my own platform game based on my experiences of playing others.</p> <p>I can create my own platform game by using my own design ideas.</p> <p>I can change my game based on my own thoughts and those of my friends.</p>	<p>I can use my prior knowledge to help me predict what will happen when playing different games and apps.</p> <p>I can break down the different parts of a game and explain the sequence of events that enable it to work.</p> <p>I can use drama to show that I understand how popular games/apps work.</p> <p>I can use the iPad to take and annotate screenshot pictures; these annotated screenshots show that I</p>		

	<p>I have included all the main features and they are appropriate for my game. I have;</p> <ul style="list-style-type: none"> • A catchy name • A genre (e.g. jumping game, side - flying game) • A well designed player • Platforms • Backgrounds <p>When I have uploaded my game, I have written a clear, description, which will help players understand how to play it.</p>	<p>understand how selection and repetition is used in games. I can suggest my own ideas for how to change and improve games (modifications).</p> <p>I can use a range of multimedia (e.g. a screencast video), to show my understanding of the 'hidden mechanisms' used to program popular games and apps.</p>		<p>e.g. name = raw_input ("what is your name?") print name ("is a lovely name)</p> <p>I can use conditional statements "if" "else if" ("elif") and "else" and comparison operators</p> <p>e.g. & Declare feeling variable using number input from user feeling = input ("How are you feeling today? Excited = 1, Happy = 2, Miserable = 3, Nervous = 4")</p>
<p>I'M A COMPUTER PROGRAMMER</p>	<p>I know what algorithms are. I can write an algorithm that guides an object around a route. I can follow an algorithm that guides an object around a route. I can spot problems with my algorithm and work out a way of fixing it. I understand words such as "Forward", "Left", "Right", "Backwards", "Stop", "Go", "Forward5", "Left2."</p>	<p>I can produce a clear, detailed story board or plan. I can use the paint tools to draw my own backdrop and sprite(s). I can think through the steps of my animation carefully and can demonstrate this by snapping together blocks of script (for every sprite that I have). My scripts run in a logical sequence. I can work towards creating an interesting, informative animation which combines graphics, text and possibly sound. I have created a number of scenes and will be able to link them together. I can spot problems with my algorithm and work out a way of fixing it (debugging).</p>	<p>I can create a world that has basic terrain, hills/mountains, water and trees. I am making good progress on creating a game with a specific audience in mind (e.g. it allows the user to control a character and they follow a path). I can add extra features to my game such as the ability to score points and collect items. I have added a range of more advanced features to my game, such as multiple characters, objects and other elements. I understand the visual programming language of Kodu, for example 'When' and 'Do' (e.g. "When coin is collected Kodu scores one point").</p>	<p>I can analyse a program and am able to show that I understand how it works. I can create an introduction that welcomes the player to my quiz. I can program a series of commands to achieve a specific outcome and have put these into a sequence that controls more than one thing (selection). I can create variables in order to construct a score. I can create a variable to define the different levels within my quiz. I can create a variable that takes away a "life" for each incorrect answer. I have used repetition in my game. My game ends when the player reaches a certain score or has lost all their lives.</p>

	<p>I can programme a sprite to say something.</p> <p>I have added voice recordings to my animation.</p> <p>I can use the built in camera.</p> <p>I can make an algorithm (set of instructions), by snapping together different blocks and the blocks I choose, are put into an order that makes sense.</p> <p>I can add a new scene, which gives new information.</p> <p>I can spot problems with my script and can work out a way of fixing it.</p> <p>I can link my final, completed scenes together using a red 'loop' block, so that they play continuously.</p>	<p>I can find the correct commands from the coloured sets and put them in a logical order (so that my sprites do what I want them to do).</p> <p>I can use the correct 'Looks' and 'Sounds' blocks and place them in the correct place within a script.</p> <p>I can use "Control" blocks such as "Forever", "If" and "Repeat until", so that my program runs properly and in the correct sequence.</p> <p>I can add extra commands to make my program run better, such as, making a "Variable" (called Score), and adding "Sensing" blocks.</p> <p>I can spot problems with my algorithm and can work out a way of fixing it (debugging).</p>	<p>I can spot problems with my algorithm and can work out a way of fixing it (debugging).</p> <p>I have made a screencast, which explains the game that I have made, the thought process behind it and how it works.</p>	<p>I can add a few different backgrounds and can program these to change when a question is answered correctly or incorrectly.</p> <p>I can test and refine my series of commands, evaluating them and making changes where necessary so that my program runs correctly.</p> <p>I have not just copied somebody else script, but have adapted other peoples work, in order to create my own game.</p>
<p>I'M A CREATIVE USER OF TECHNOLOGY</p>	<p>I can take photos on either a digital camera or on the iPad.</p> <p>I can find images safely and responsibly online and then save them.</p> <p>I can select the images to use in my photo story.</p> <p>I have planned what I will say for my narration.</p> <p>I can record my voice and have spoken clearly.</p> <p>I can add music.</p> <p>I have used the set audio mix feature to create the right balance between the volume of my voice and the volume of the music track</p> <p>I have added a filter effect to my images.</p> <p>I can share my work to the iPad camera roll.</p>	<p>I can find images online in a safe and responsible manner.</p> <p>I can add text to my flyer and I have tried my best to include a good standard of writing.</p> <p>I have used text formatting tools, such as Bold, Italics, Underline, Bullet Points and Numbers to make certain parts of my text stand out.</p> <p>I have included hyperlinks.</p> <p>I have changed the background, colours and fonts so that my design matches my theme.</p> <p>I have used the right click button to edit and check my text (e.g. to check spellings and change fonts).</p> <p>I have included some more advanced features, such as videos and embedded forms.</p>	<p>I can find relevant information from the internet about a particular topic.</p> <p>I can capture and record information that I find by either writing it down or storing it digitally.</p> <p>I have thought about how I am going to search for information on the internet and know which internet services I will use.</p> <p>I have considered possible bias and issues with accuracy in selecting information from the Internet.</p> <p>I have credited sources of information that I have used.</p> <p>I can evaluate the usefulness of the information that I have found and am selective about what I choose to save.</p> <p>I can use sound recording software to record audio.</p>	<p>I can choose a relevant template, linked to the theme of my movie trailer.</p> <p>I can find appropriately sourced, good quality, well-sized images relevant to my movie trailer and have saved them to the iPad camera roll.</p> <p>I can add text relevant to my trailer and have tried my best to include a good standard of writing.</p> <p>I can create a movie which is eye catching and maintains the viewers attention throughout.</p> <p>I have made and added videos as well as images to my trailer; these videos enhance the video and ultimately, make it better.</p> <p>I can edit and refine my work based on my own feedback and that of my peers.</p>

			<p>I can edit my podcast by splitting and rearranging tracks, mixing tracks and adding relevant sound effects.</p>	<p>I can use the app Aurasma to link my completed videos with an accompanying piece of work that I have produced.</p>
	<p>I can find images online. I can save the images I find. I can add images for my background scenes. I can stretch my background image to fill the screen. I can set my background so that it doesn't move. I can add images of the characters I want to use. I can use the crop button to cut carefully around my characters and add these to my scene. I can make my characters the right size. I can use the record button to record my voice. I can go to a new page. I can save and share my work.</p>	<p>I can plan and design an educational game similar to the ones I have played in Tiny Tap; my game has an appropriate amount of challenge for children in EYFS and is based on a skill or topic that they need to know. I can find online images safely and responsibly and can either save these to a useful place on the iPad or import them straight into my game. I can import images (and stickers) into pages of my game. I can re-size images and position them appropriately; I have used an appropriate number of images on each page. I can add text to my game. I have recorded the right type of questions (i.e. ones which will enable to player to respond appropriately). I have recorded feedback for each question response, so that players remain interested in my game throughout. Once my game is complete, I can fill in relevant details about it (a detailed description, age range and subject category) and I have uploaded it to our Tiny Tap account.</p>		

<p>I'M A DATA PRODUCER</p>	<p>I can identify technology that is around me.</p> <p>I understand how some of this technology works and what it does.</p> <p>I can take a good photograph.</p> <p>I can add the photos that I have taken to a shared folder.</p> <p>I can import images into the Pic Collage app.</p> <p>I can change the size of an image and position it somewhere else on my page.</p> <p>I can make my poster look good by choosing an attractive template and by changing the text fonts.</p> <p>I can add text to my poster that gives information about my images.</p> <p>I can save my work to the iPad camera roll.</p> <p>I can then upload that image to a shared area.</p> <p>I can print out my work in colour.</p>	<p>I can plan and design a poll.</p> <p>I can open up a new browsing page when on the internet by using the 'new tab' function.</p> <p>I can filter an image search in Google to return only images that I have permission to use.</p> <p>I can filter an image search in Google to return only medium and/ or icon sized images.</p> <p>I can save an image to a specific folder.</p> <p>I can upload images to use in my poll.</p> <p>I can embed my survey into a new blog post.</p> <p>I can copy and paste the url address of my poll into the body of an email address and send this to my contacts.</p> <p>I can create a QR code image using the web address of my poll.</p> <p>I have printed this out to display around school.</p> <p>I can find and analyse my poll responses.</p> <p>I can take a screenshot picture of my responses. I have uploaded this to a shared area with a note or presentation to explain my results.</p>	<p>I can reference cells in a spreadsheet.</p> <p>I can enter formulae into a spreadsheet.</p> <p>I can enter fields (headings) and numbers into a spreadsheet.</p> <p>I can use the SUBTOTAL function to count cells within a certain range and according to specific criteria</p> <p>I can use the conditional formatting tool to set the text colour according to the cell value being met.</p> <p>I can use the filter tool to sort data according to a specific criteria.</p> <p>I can use "SUM", "AVERAGE", "MIN" AND "MAX" to calculate various formulae of a set of numbers in a range of cells.</p> <p>I can add cell borders and background colours to improve how my spreadsheet table looks. I can present my data as a table or chart.</p>	<p>I can create an online questionnaire/survey, which includes questions that are relevant, useful and purposeful to the task.</p> <p>I know how to stay safe when submitting online content.</p> <p>I can share my questionnaire/survey (either by emailing, posting links on Twitter, creating a QRcode link or by embedding the form into a blog or website).</p> <p>I have collected a range of responses.</p> <p>I can use the information and data I've collected to form opinions and draw conclusions.</p> <p>I can present the findings of the information and data I have collected, in a formal presentation.</p>
	<p>I can collect data in the form of a tally chart.</p> <p>I can take a good quality photograph so that my template fits the full iPad screen and the labels and outlines on the template can be clearly seen.</p> <p>I can use the tools within Doodle Buddy in order to transfer the data</p>	<p>I understand how a branching tree works and can use a branching tree to find out information.</p> <p>I have written a tree diagram and have decided whether I will use either images taken myself, images imported from within PowerPoint itself or images that I will find safely and responsibly online.</p>		

	<p>from my tally chart into a graph, chart or table on the iPad.</p> <p>I can present my information clearly and carefully; It is well set out and accurately shows my data.</p> <p>I can make a variety of graphs, charts or tables in Doodle Buddy. I can then import these into Pic Collage, to make a poster about my work.</p> <p>I can save my work to the iPad camera roll.</p> <p>I can upload my work to a shared area. I can print my work out from a computer.</p>	<p>If using images found online, I have searched safely and responsibly and have only used images that the creator has given permission to use.</p> <p>I can add/insert text to the appropriate place within a PowerPoint slide.</p> <p>I can add images to a PowerPoint slide and position these in an appropriate place.</p> <p>I can add hyperlinks that link the text on my slides to the next correct slide in my non-linear presentation.</p> <p>This matches the branching tree that I designed in lesson one.</p>		
<p>I'M A ONLINE COMMUNICATOR AND COLLABORATOR</p>	<p>I understand what email is.</p> <p>I can create content using text, drawings and stamps.</p> <p>I can change the background of my page.</p> <p>I can take a good photo of my work using the camera tool</p> <p>I know how to go back to the previous toolbar.</p> <p>I can select the people that I want to send an email to.</p> <p>I can find emails that have been sent to me in my inbox. I can tell you how many I haven't yet read.</p> <p>I can reply back to a contact who has sent me an email.</p>	<p>I have planned my quiz questions. I have researched carefully on the internet to check my answers.</p> <p>I have typed my questions into www.qrstuff.com</p> <p>I have typed my answers into www.qrstuff.com</p> <p>I have made sure that both my QR codes (question and answers) are the right colour</p> <p>I can download a QR code and save this image to my desktop.</p> <p>I can copy and paste my QR code image into a Word document.</p> <p>I can add text to my Word document.</p> <p>I can use the formatting toolbar to make this stand out.</p> <p>I can print out both my sheets (questions and answers) in colour.</p>	<p>I know the success criteria for an effective blog post and can apply this to writing my own blog.</p> <p>I understand how the internet makes blogging possible.</p> <p>I have commented respectfully on other people's blog posts.</p> <p>I know how to report concerns about posts or comments on blogs.</p> <p>I know what is acceptable and unacceptable behaviour when commenting on other people's posts and when using other people's work.</p> <p>I have commented respectfully on other people's blog posts.</p> <p>I have written my own blog posts and tried my best to include a high standard of writing.</p>	<p>I have chosen a relevant theme for my site and if applicable, have changed the overall colour theme too.</p> <p>I have given my site a relevant title using the subdomain of _____weebly.com</p> <p>Using the pages tab, I have set up the pages of my site by naming them and choosing the layout theme for each page (at least 5 main pages). I have created some drop down pages too.</p> <p>I have added text to my pages. I have made sure that the standard of my writing is good and have used the formatting tools to change the different style features of my text (e.g. bold, underline). I have added a</p>

	<p>I can choose a sensible username and password that I will remember. I haven't shared my username or password with anyone else (other than a trusted adult).</p> <p>I know what's appropriate when chatting and sending notes to others. I know what to do if someone sends me inappropriate content.</p> <p>I can change my profile settings to keep me safe online (e.g. change my password if I think that somebody else might know it).</p> <p>I know how to search for images online in a safe and responsible way. I can attach an image to a note. I can attach a file to a note. I have turned in an assignment. I have completed a poll. I have completed a quiz. I have joined at least one new group. I have deleted photos I have stored to the camera roll (if no longer needed) and logged off from Edmodo at the end of the lesson.</p>	<p>I can add pages to my Wiki. I can add relevant and interesting content to the pages I've created within my Wiki. I can add subcategories to my Wiki and create direct links to these. I can change the fonts and styles of my text, therefore showing an awareness of design and layout. I can add other media to my Wiki, such as images, attachments, video content, creating discussion pages and other more advanced effects. I work well and communicate effectively with others in my group and have contributed fully towards the creation of my groups Wiki.</p>	<p>I have added my own images, audio and video to a blog post. If I have used other people's work on the internet, I have checked that they have given permission and have referenced them or provided links to their work.</p>	<p>link to some of my text (e.g. a hyperlink to a related website). I have added various other elements to my site such as;</p> <ul style="list-style-type: none"> • Images • Slideshow or Gallery • Youtube video(s) • Map <p>I have created a survey using Google Forms and embedded this into my website.</p>
<p>I'M A RESPONSIBLE DIGITAL CITIZEN</p>	<p>I know that people might not be who they say they are on the internet. I know that information about me is really important and that it should not be shared online without a parent, carer or teacher's permission. I always talk to an adult I trust about what I do online. If I see something that makes me feel confused or scared, I know to tell a trusted adult (e.g. parent, carer, relative or teacher). I know what to do if I find something inappropriate online or if somebody</p>	<p>I understand what the internet is. I understand the different parts of a URL. I understand how search results are selected and ranked. I can search effectively online. I can safely search for images online and I only use images that I have permission to use. I can evaluate websites based on;</p> <ol style="list-style-type: none"> 1. How relevant the content is (based on what I actually want to find out). 	<p>I understand the rules for staying safe on the web. I know what the schools acceptable use policy is and can present ideas and tips to help others follow this. I have a good understanding of a range of e-safety issues and topics. I understand the potential risks of providing personal information when using online technologies both within and outside school. I can evaluate how safe I am when using online technologies. I have</p>	<p>I have planned the design of my app by deciding on the name of each of my 5 tabs, what icons will be within each one and what they will link to. I have planned what my splash screen will look like. I have created my app by giving it a name, writing a description, choosing a category and uploading an icon image (that I have permission to use).</p>

	<p>says or does something that worries me. I know how to behave when I am online. I can add text to my poster. I can add images to my poster. I can edit my images and text so that they are the right size and in the right place. I can make my work look nice by changing things such as the text fonts. I can make my work look nice by choosing an attractive template and changing things such as the colours. I can share my work.</p>	<p>2. How easy it is to find what I'm looking for (there might be lots of pop-up adverts that make this difficult, for example). 3. How reliable the information in the website is (done by cross - referencing it with other similar websites). I can present my work effectively.</p>	<p>changed my online behaviour if appropriate, in response to this. I have communicated and presented my knowledge and understanding of e-safety to others. I have created a high quality piece of work using ICT. This work meets the needs of the design brief: to create an IT based e-safety document for a chosen audience.</p>	<p>My first tab is the home screen (with the tab name "home"). Within this tab I have created a number of icons and have assigned various actions to each one. I have created 4 other tabs, which include content which links to something else. My icons are all the same size and fit in with the theme of my app. One of my tabs includes a link to a map and has map points linked to the theme of my app. On one of my tabs, I have created a standard screen which links to relevant YouTube videos (that I have found responsibly online). I have added a link to a related twitter feed. I have also set up a link to a related RSS feed. I have added a gallery and other images. I have also added other features such as sound, videos, files and extensions. I have shared and installed my app onto a mobile device.</p>
	<p>I can use the web safely and find images that I have permission to use. I know what to do if I come across any images that cause concern. I can save images that I need (to a cloud based storage space). I can import images into Haiku Deck. I can add text to go with the images that I have imported. In my presentation I have; <ul style="list-style-type: none"> • chosen a good theme • chosen the right layout for each slide • included a title page • included many slides (I might have changed the order of some of these) • turned the background colour on or off, where appropriate </p>	<p>I can name some of the hardware that connects computers. I can take part in simulation of how data is transmitted via the internet. I can describe some of the functions of the different hardware used to connect computers. I can discuss some of the hardware involved in connecting a classroom computer to a web server in another country. I can describe how data is transmitted via the internet. I can discuss some of the protocols involved in transmitting data via the internet. I can describe the different uses of ping, ifconfig, tracer and nslookup commands.</p>		

	<ul style="list-style-type: none">• included lower case and all capital letter text, where• appropriate <p>I have added a chart(s) to my slide(s).</p> <p>I have shared my presentation to be viewed by others.</p>	<p>I can discuss the output produced by ping, ifconfig, tracer and nslookup commands.</p> <p>I understand some of the ways in which safety or privacy may be compromised by using the internet.</p>		
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