

Computing & ICT



Intent,
Implementation,
Impact

Contents

Y3-4 Autumn 1 - Using a Mouse
Y3-4 Autumn 2 - Computational Thinking
Y5-6 Autumn 1 - Online Safety
Y5-6 Autumn 2 - How Do I Programme Music

EYFS - Summer 1 - How do I take a photograph?

EYFS - Summer 2 - How do I sort objects?

Y1 - Summer 1 - How do I control a Bee-Bot?

Y1 - Summer 2- How do I create a photo-story?

Y2 - Summer 1 -What is animation?

Y2 - Summer 2 - How do I use a Chrome Book or Computer?

Y3/4 - Plan A - Summer 1 - How do I type using two hands?

Y3/4 - Plan A - Summer 2 - What is computational thinking?

Y3/4 - Plan B - Summer 1 - How do I know what is reliable online?

Y3/4 - Plan B - Summer 2 - How do I code is *UNDER CONSTRUCTION*

Y5/6 - Plan A - Summer 1 - How do we use technology to crack codes?

Y5/6 - Plan A - Summer 2 - How do I make my own stop animation project?

Y5/6 - Plan B - Summer 1 - How can data be transmitted wirelessly?

Y5/6 - Plan B - Summer 2 - How do I create a webpage?

Year 3/4 Plan A - ICT - Autumn 1 -How do I use a mouse?

1. How do I log in to a computer?

Intent	Children will be able to log in to the school's Chrome Books with their user name and password.
Implementation	Children will learn how school usernames and passwords are formed. They will practice logging in and logging out of the Chrome Books.

2. How do I use a mouse to click and drag?

Intent	Children will create a piece of digital artwork using Chrome Canvas.
Implementation	Children will learn to load the programme Chrome Canvas and create a piece of digital art, involving using clicking and dragging mouse skills.

3. I use a mouse to draw and edit shapes?

Intent	Children will create a piece of digital artwork using repeating patterns and shapes.
Implementation	Children will load Sketchpad https://sketch.io/sketchpad/ and create a piece of artwork using a repeating pattern and concentric circles by learning about resizing shapes and the layers of the image.

4. How do I use digital art to tell a story?

Intent	Children will develop mouse skills by creating digital images to retell a scene from a well-known story.
Implementation	Children will load Sketchpad https://sketch.io/sketchpad/ and use clipart and layers to retell a scene from a well-known story of their choosing.
Impact	Children will be able to log in to the school Chrome Books and be able to load programmes such as Chrome Canvas and Sketchpad. They will develop their mouse skills on the Chrome Book touchpads to be able to click, drag, drop, draw and control programmes.

Year 3/4 Plan A - ICT - Summer 2 - What is computational thinking?

1. What is computational thinking?

Intent	Children will understand the term computational thinking and that it can be used to help solve problems both digitally and non-digitally.
Implementation	Children will view the presentation: https://www.kapowprimary.com/subjects/computing/lower-key-stage-2/year-4/computational-thinking/lesson-1-what-is-computational-thinking/ Then they will take part in a carousel of activities to introduce them to the four concepts of computational thinking.

2. How do I use pattern recognition to solve problems?

Intent	Children will understand what pattern recognition is and be able to apply it to a problem.
Implementation	Children will recap the bead threading activity from Lesson 1. Children will use turtle academy and experiment with repetitive instructions to create simple shapes.

3. How do I use decomposition to solve problems?

Intent	Children will understand what decomposition is and be able to apply it to a problem.
Implementation	Children will recap the tangram activity from lesson 1. Children will use turtle academy to draw a digital version of a simple house, as a tangram picture. Using shapes to build up the image.

4. How do I use an algorithm?

Intent	Children will understand what an algorithm is and be able to apply one to solve a problem.
Implementation	Children will recap the alien drawing activity from Lesson 1. Children will use turtle academy to write an algorithm of instructions to create a house.
Impact	Children will develop an understanding of computational thinking and how the four principles can be used to solve problems. They will be able to explain each of the processes and how this helps to solve problems. Children will develop practical experience with turtle academy programming with logo.

Year 5/6 Plan A - ICT - Autumn 1 - How do I protect myself from online dangers?

1. How do applications access my personal information?

Intent	Children will learn how applications can access our personal information and how to alter app permissions to limit the sharing of information with others online.
Implementation	Children will work together to create a secure, yet memorable password and understand why that is a strong password. Then they will take part in a knowledge sharing quiz with their classmates to ascertain what each of them already know about application permissions.

2. What are cookies?

Intent	Children will understand what cookies are and what sort of information they are sharing.
Implementation	The teacher will display the websites that ask for cookie permissions on the whiteboard and get the children to explore the permissions as a class. The children will then use red and green cards to 'accept' or 'decline' examples of cookies and discuss their decisions.

3. What is online communication and how do I use it safely?

Intent	Children will understand the importance of using online communication safely, responsibly and respectfully.
Implementation	Children will make a list of the many forms of online communication (including emojis, memes and gifs) and discuss the advantages and disadvantages of these. They will watch the video "I am a meme:" https://www.bbc.com/ownit/its-personal/scottie-dogs-meme?collection=staying-safe and design their own memes.

4. What is an online reputation?

Intent	Children will know and be able to research a well-known famous figure and work out that information online is often someone's opinion and not factually accurate,
Implementation	Children to pick a famous figure to research as a class. They are then to spend ten minutes online and write down five facts about this famous figure. Using this information they are to form an opinion of this person from this information and then use it in a discussion. As opinions will differ based on the information found and selected children should then discuss their judgement of people based on the information they can find about them online.

5. How can I protect my online health?

Intent	Children learn how technology can affect our health and wellbeing, and come up with ways to replace bad online habits with good online habits.
Implementation	Children will explore the negative effects of some online habits and create a poster to encourage others to create good online habits.
Impact	Children will have a good understanding of passwords, cookies and app permissions. They will understand about the different forms of online communication and how to use them safely, responsibly and respectfully. They will be able to showcase their research, form an understanding of where an online reputation comes from and how to protect theirs. They will be able to use their presentation skills to influence others to form good online habits.

Year 5/6 Plan A - ICT - Autumn 2 - How do I programme music?

1. What music elements are there on Scratch?

Intent	Children will identify that Scratch is a coding application with music elements and learn how to independently code with these blocks.
Implementation	Children will work independently to explore the music elements of Scratch and to create a block code sequence with these elements.

2. How do I create a program that plays themed music?

Intent	Children will use loops to create a piece of music based upon a given theme.
Implementation	Children will use Scratch to create a piece of themed music. They will use Scratch's basic sound commands and include a loop in their programming.

3. How do I plan a soundtrack program?

Intent	Children will plan a soundtrack to add to a known story.
Implementation	Children will consider what type of music is needed for the story. They will then explore the types of sounds available on Scratch, that would match the story.

4. How do I program a soundtrack?

Intent	Children will learn how to use a range of programming commands to enhance the scene from a story, when programming a soundtrack.
Implementation	Children to use basic sound commands and loops within Scratch to be able to program a soundtrack.

5. How do I program music for a purpose?

Intent	Children learn how to program music for a specific purpose.
Implementation	Children will combine known commands and repetition to program music for a purpose, using various forms of output.
Impact	Children will have a good understanding of block coding music using Scratch. They will Design, write and debug programs that accomplish specific goals. They will understand the basic sounds and commands available and how to manipulate them to create a soundtrack. They will use sequencing, selection and repetition within their program and work with a variety of outputs to achieve a given effect.

EYFS - Technology - Summer 1 - How do I take photographs?

1. How do I use an Ipad to take photographs?

Intent	Children will know how to use the camera function on an Ipad to take a photograph. They will also know how to make the subject of their photograph is on screen and that blurry photographs need to be retaken.
Implementation	Children will be observed at play and given the opportunity to engage in this active learning. They will develop the fine motor skills involved to operate the camera.

2. How do I take photographs of the world around me?

Intent	Children will build on their photography skills by targeting a particular subject to photograph.
Implementation	Children will engage in an active learning walk, identifying their subject, taking photographs and describing what they see and feel.

3. How do I take photographs of myself?

Intent	Children will be able to flip the camera on an Ipad to be able to take a photograph of themselves.
Implementation	Children will develop the skills necessary to use the camera function on the Ipad to take photographs of themselves. They will experiment with the photographs showing different facial expressions or emotions. They will then select their favourite photograph and write (or have scribed) something positive about themselves underneath it.
Impact	Children will be able to use the camera function on an Ipad in a variety of appropriate settings. They will know about ensuring their subject is in the photograph and that their photograph isn't blurry. They will be able to speak positively about the photographs they have taken.

EYFS - Technology - Summer 2 - How do I sort objects?

1. How do I sort classroom objects?

Intent	Children will understand how to sort and categorise objects from the classroom and be able to explain how they have been sorted.
Implementation	Children will explore through play a selection of small classroom items. They will actively engage in sorting these items in categories and be able to articulate why they have put certain items together. E.g. size or colour

2. How can we sort ourselves?

Intent	Children will understand that sorting means putting similar objects together according to the set criteria and that when the criteria changes the groupings might too.
Implementation	In small groups, children will listen to, pay attention to and understand instructions given by an adult to sort themselves into height order. They will then be given different criteria to sort themselves by E.g. eye colour, hair colour, clothing type.

3. How can I use yes and no questions to sort objects?

Intent	Children will understand that to sort objects they must clearly have something in common with each other.
Implementation	Children will engage in a teacher led game of 'yes and no'. They will be asked questions about themselves resulting in them being sorted into some sitting and some standing. Children will understand that this is sorting them into groups. Children will then actively sort their classmates by asking questions with a 'yes or no' answer.

4. What is a branching database?

Intent	Children will know what a branching database is and be able to place an object within it by asking questions with a yes or no answer.
Implementation	Children will repeat the yes and no game from the previous lesson, whilst the adult creates a branching database on the whiteboard of the groupings. The children will be able to visualise the groups being created and articulate what is happening.
Impact	Children will know how to sort objects into groups and be able to articulate why they have chosen those groupings. Children will be able to use yes and no questions to place an object within a branching database.

Year 1 - ICT - Summer 1 - How do I control a Bee-Bot?

1. How do I make a Bee-Bot move where I want it to?

Intent	Children will be able to work the controls of a Bee-Bot to make it go forwards, backwards and round in a circle.
Implementation	Children will watch the video on how to control a Bee-Bot: https://video.link/w/LYxWc Children will then explore the controls of a Bee-Bot to work out what they do. Children will make their Bee-Bot complete a series of challenges, such as drive under a bridge and go round in a circle.

2. How do make a demonstration video?

Intent	Children will be able to articulate, explain and demonstrate the controls of the Bee-Bot to assist others when learning to use this device.
Implementation	Children will work in pairs or small groups to plan out and film their own demonstration video using Ipads. Children will demonstrate all the control features of the Bee-Bot whilst videoing it, explaining what the Bee-Bot is doing and why.

3. What are precise instructions?

Intent	Children will be able to give and follow precise instructions in order to complete the given task. They will also be able to work out where any instructions went wrong and 'debug' them.
Implementation	https://www.kapowprimary.com/subjects/computing/key-stage-1/year-1/programming/programming-beebot/lesson-3-precise-instructions/ Children will be shown the presentation about giving and following precise instructions. Then in groups of three they will play the roles of controller, Bee-Bot and judge, giving, following and debugging instructions. Each child will have the opportunity to play all three roles.

4. How do I plan and follow a route?

Intent	Children will be able to plan and follow a set of instructions using the Bee-Bot and the Bee-Bot world map.
Implementation	Working in pairs, children will plan a route that they would like their Bee-Bots to follow and write precise instructions for them to follow. They will then control the Bee-Bot through their instructions, debugging any errors as they go.
Impact	Children will have knowledge of Bee-Bots, what they are and how to control them. Children will know about the importance of giving precise instructions and be able to debug mistakes from these instructions.

Year 1 - ICT - Summer 2 - How do I create a photo story?

1. What is a photo story?

Intent	Children will plan a well sequenced story using pictures. Children will be able to explain what is happening in their pictorial story.
Implementation	Children will select everyday items or toys to tell a story about. Children will then use a story board to plan their own pictorial story including a sequence of events.

2. How do I take clear photographs?

Intent	Children will be able to take clear photographs, with their characters as the subject.
Implementation	Children will use Ipads to take pictures of their characters to complete their pictorial story. Children will ensure that their characters are clearly in the photograph. They will also know how to get the Ipad to the correct angle, how to ensure the Ipad doesn't move when taking pictures and how to discard blurry or unwanted photographs.

3. How do I edit photographs?

Intent	Children will know that photographs can be edited after they are taken.
Implementation	Children will explore the photograph editing functions on the Ipads to make changes to their pictures. They will be able to explain what changes they have made and why they make better photographs.

4. How do I create a photo collage?

Intent	Children will be able to add their photographs to a photo collage using the Moldiv app.
Implementation	Children will use a template from the Moldiv app to add their photographs and create a digital story board for their pictorial story.
Impact	Children will be able to use an Ipad to set up, take and edit photographs. They will be able to plan a well sequenced, pictorial story using a story board and take photographs to match the story. They will then be able to import them into a digital template on the Moldiv app, creating a digital version of their story.

Year 2 - ICT - Summer 1 - What is animation?

1. What is flip-book animation?

Intent	Children will understand what animation is and be able to make their own flip-book animation.
Implementation	Children will discuss what a flipbook animation is and watch the video: Pencil flipbook - Constellation prize https://video.link/w/ieBzb Children will make their own flipbook and add drawn images to create an animation.

2. What is stop motion?

Intent	Children will explore stop motion on Ipads, using the following website. https://www.j2e.com/jit5#animate Creating their own animation and learning about onion-skinning.
Implementation	https://www.kapowprimary.com/subjects/computing/key-stage-1/year-2/stop-motion-2/stop-motion-option-2-using-tablet-devices/lesson-2-what-is-stop-motion-tablets/ View the presentation on stop motion from Kapow, including the videos on creating an animation and what onion skinning is and how to use it in your animation. Children will then try to create their own mini-animation using the onion skinning technique to help them.

3. How do I plan an animation?

Intent	Children will plan their own space themed animation video using Stop Motion Studio.
Implementation	https://www.kapowprimary.com/subjects/computing/key-stage-1/year-2/stop-motion-2/stop-motion-option-2-using-tablet-devices/lesson-3-my-first-animation-tablets/ Children will view the presentation on how to create an animation. They will then choose their resources for animation and prepare them. When they have prepared their resources children will plan out how their animation will work onto a planning sheet.

4. How do I make my own animation?

Intent	Children will create their own animation using the Stop Motion Studio app.
Implementation	Children will use their resources from the previous session to create their animation. Using the app children will know to take one picture per frame using small movements and the onion skinning method.
Impact	Children will be able to explain what animation is, plan and implement their own animations, using digital and non-digital resources. Children will know what onion skinning is in animation. They will be able to explain why small movements, keeping the background and Ipad still and careful photographing are important.

Year 2 - ICT - Summer 2 - How do I use a Chrome Book or Computer?

1. What is a keyboard and how do I locate the keys?

Intent	Children will know what a keyboard is and be able to locate the keys to spell their full name and the word chaseview.
Implementation	Children will name the parts of a Chromebook E.g. monitor, keyboard, mouse. Then they will identify and colour the letters from their full name on a printed keyboard, identifying that the keys are capital letters. They will then repeat the activity using a clean keyboard for the word 'chaseview'.

2. How do I 'log-in' and 'log-out'?

Intent	Children will understand the process of logging into and out of a Chromebook.
Implementation	Using their coloured keyboards from the previous lesson for support, children will try to identify the keys needed on the Chromebook to be able to log-in. They will also learn how to sign-out and shut down a Chromebook.

3. What is a mouse and how do I control it?

Intent	Children will know what a mouse is and develop basic mouse skills such as moving and clicking.
Implementation	Children will log-in to Chrome books and use a simple online paint tool, such as Chrome Canvas to create digital art.

4. How do I drag and drop with a mouse?

Intent	Children will be able to develop their mouse skills to be able to drag and drop.
Implementation	Children will log-in to the Chrome books and play an online game to develop their mouse dragging and dropping skills.
Impact	Children will learn what a Chromebook is and be able to name the key parts. They will be able to independently log-in to a Chrome book using the keyboard. They will begin to develop mouse skills.

Year 3/4 Plan A - ICT - Summer 1 - How do I type using two hands?

1. How do I type the home row letters?

Intent	Children will understand what is meant by the home position on a keyboard. They will begin to be able to locate the main home row keys.
Implementation	Children will load the touch-typing website: https://www.typingclub.com/sportal/program-3.game They will begin the tutorials to learn the home row keys.

2. How do I type the top row keys?

Intent	Children will understand what is meant by the top row keys and how to move their fingers from the home position and back again. They will begin to be able to type the letters on the top row as well as those on the home row.
Implementation	Children will load the touch-typing website: https://www.typingclub.com/sportal/program-3.game They will begin the tutorials to learn the top row keys.

3. How do I type the bottom row keys?

Intent	Children will understand what is meant by the bottom row keys and how to move their fingers from the home position and back again. They will begin to be able to type the letters from the bottom row as well as those from the top and home rows.
Implementation	Children will load the touch-typing website: https://www.typingclub.com/sportal/program-3.game They will begin the tutorials to learn the bottom row keys.

4. How do I type with both hands?

Intent	Children will be able to type using two hands, using all of the keys on a keyboard.
Implementation	Children will load the touch-typing website: https://www.typingclub.com/sportal/program-3.game They will continue the tutorials to learn to type using all of the keys.
Impact	Children will be able to locate letters on a standard QWERTY keyboard. They will be able to type using two hands, locating the home position and moving between other keys and this position. Children will be able to explain the importance of being able to type with two hands and not look at the keyboard.

Year 3/4 Plan A - ICT - Summer 2 - What is computational thinking?

1. What is computational thinking?

Intent	Children will understand the term computational thinking and that it can be used to help solve problems both digitally and non-digitally.
Implementation	Children will view the presentation: https://www.kapowprimary.com/subjects/computing/lower-key-stage-2/year-4/computational-thinking/lesson-1-what-is-computational-thinking/ Then they will take part in a carousel of activities to introduce them to the four concepts of computational thinking.

2. How do I use pattern recognition to solve problems?

Intent	Children will understand what pattern recognition is and be able to apply it to a problem.
Implementation	Children will recap the bead threading activity from Lesson 1. Children will use turtle academy and experiment with repetitive instructions to create simple shapes.

3. How do I use decomposition to solve problems?

Intent	Children will understand what decomposition is and be able to apply it to a problem.
Implementation	Children will recap the tangram activity from lesson 1. Children will use turtle academy to draw a digital version of a simple house, as a tangram picture. Using shapes to build up the image.

4. How do I use an algorithm?

Intent	Children will understand what an algorithm is and be able to apply one to solve a problem.
Implementation	Children will recap the alien drawing activity from Lesson 1. Children will use turtle academy to write an algorithm of instructions to create a house.
Impact	Children will develop an understanding of computational thinking and how the four principles can be used to solve problems. They will be able to explain each of the processes and how this helps to solve problems. Children will develop practical experience with turtle academy programming with logo.

Year 3/4 Plan B - ICT - Summer 1 - How do I know what is reliable online?

1. What happens when I search online?

Intent	Children will be know and be able to explain how to search for information using a search engine, social media, image or video site. Children will be able to make a judgement about the reliability of their search results and discuss this judgement.
Implementation	https://www.kapowprimary.com/subjects/computing/lower-key-stage-2/year-4/year-4-online-safety/lesson-1-what-happens-when-i-search-online/ Children will view the presentation and engage in a class discussion about search results and their validity. They will then engage in an independent activity analysing search engine results and discussing what makes them reliable or not.

2. How do companies encourage us to buy online?

Intent	Children will know about in-app purchases and pop-ups and be able to discuss their intention. Children will know methods to avoid these.
Implementation	Children will engage in a class discussion and compile a list of ways that companies operate in the digital world, identifying images that are familiar to them. They will then compile a list of defences against these methods to ensure they know how to protect themselves.

3. What is difference between fact, opinion and belief?

Intent	Children will be able to explain the difference between a fact, an opinion and a belief. They will be able to explain that just because an opinion is popular that doesn't make it right. Children will begin to make their own judgements.
Implementation	Children will engage in a class discussion about commonly held beliefs and opinions, contrasting these with known, proven facts. They will then complete an activity in pairs identifying facts, beliefs and opinions.

4. What is a bot?

Intent	Children will discover that technology can be designed to act or impersonate living things. Children will be able to discuss the benefits and concerns with this.
Implementation	https://www.kapowprimary.com/subjects/computing/lower-key-stage-2/year-4/year-4-online-safety/lesson-4-what-is-a-bot/ Children will view the presentation and be able to engage in a discussion what a 'bot' is. They will then create a list of benefits and a list of risks to using 'bots'. In small groups or pairs children will design a 'bot' for their classroom. Identifying a function that the 'bot' could assist with.

5. What is my Tech Timetable like?

Intent	Children will be able to identify how much time they spend engaging with technology. They will be able to discuss when technology can become a distraction and how they might manage this.
Implementation	In small groups children will read the scenario cards discussing different children's engagement with technology. They will highlight the positive points within these scenarios and discuss the negative impacts. Then the children will complete their own tech timetable, highlighting when they use technology the most and what for. They will then apply what they have learned to make a judgement on this time.
Impact	Children will begin to think more critically about online content. Gaining an awareness of and being able to discuss online opinions and beliefs, advertising and sales strategies. Children will know what a 'bot' is, be able to recognise one in their online world and understand the advantages and risks of this technology. Children

Year 3/4 Plan B - ICT - Summer 2 - How do I code using Minecraft?

1.

Intent

Implementation

2.

Intent

Implementation

3.

Intent

Implementation

4.

Intent

Implementation

5.

Intent

Implementation

Impact

	will also be able to think critically about how they spend their time online and what they interact with in the online world.
--	---

Chase View

Year 5/6 Plan A - ICT - Summer 1 - How can we use technology to crack codes?

1. What types of secret codes are there?

Intent	Children will explore a range of simple codes from Caesar cyphers to the Enigma code and will be able to discuss why these codes would be useful.
Implementation	Children will take part in a carousel activity, exploring codes and attempting to crack them. They will also attempt to write their own messages using each of the five code types.

2. What is brute force hacking?

Intent	Children will understand what a secure password is and why it is important to have one. Children will also know what brute force hacking is, where and when it is used.
Implementation	<p>The teacher will display the brute force emulator on the whiteboard and get the children to try it out as a class.</p> <p>https://scratch.mit.edu/projects/236230906/#editor</p> <p>The teacher will talk the children through the code, explaining how it works and how it is working out the password. The teacher video from Kapow can be used to assist with this. In pairs the children will attempt to beat the emulator. One of the pair will create a three-digit password and write it on a whiteboard. The other person will then use the same decomposition strategy to attempt to solve the code.</p>

3. What is Bletchley park?

Intent	Children will understand the importance of Bletchley Park to the World War 2 war effort. They will know what the Enigma code is and that the first computer was built to crack it.
Implementation	<p>Children will watch the following video about why Bletchley Park is important.</p> <p>https://www.youtube.com/watch?v=3Ky3-Tbkyhg</p> <p>They will also watch this video about the Enigma code.</p> <p>https://www.youtube.com/watch?v=faRfab9Yyk8</p> <p>Using the videos and the Bletchley Park official website:</p> <p>https://bletchleypark.org.uk/ the children will use Chromebooks to research the answers to a questionnaire regarding Bletchley Park and its importance. (Kapow)</p>

4. Who are the heroes of computing?

Intent	Children will know and be able to research some of the well known names in computing history, such as Alan Turing, Katherine Johnson and Steve Jobs.
Implementation	Children to use the historical matchmaker worksheet to research online and discover what each of the heroes of computing is famous for discovering. In pairs, children will then choose one of these heroes that interests them the most and use Google Slides to create a presentation about them.
Impact	Children will have a good understanding of a variety of codes and the methods used to break them. They will understand what happened at Bletchley Park during World War 2 and be able to relate this to their learning about codes and hacking. They will be able to showcase their research and presentation skills to investigate further some of the well known heroes of computing history.

Year 5/6 Plan A - ICT - Summer 2 -How do I make my own stop animation project?

1. What is the history of animation?

Intent	Children will know that animation has existed since the Victorian era. They will explore traditional forms of animation such as Thaumatrope, Zoetrope and flipbooks.
Implementation	Children will watch the following three videos, one on Thaumatrope- https://video.link/w/3F65b one on Zoetrope- https://video.link/w/UZ65b and one on flipbooks- https://video.link/w/ieBzb They will make their own animation using one of these methods.

2. What is claymation?

Intent	Children will understand that Claymation is animation with clay models.
Implementation	Children will watch the following Wallace and Gromit clip and be able to discuss that the animation is created using a series of small movements with a clay object and individual photographs called frames. https://video.link/w/cPF7b Children will attempt a five frame animation using a ball of clay.

3. How do I plan a claymation?

Intent	Children will understand the process behind creating a clay based animation. They will plan out their own animation using storyboards.
Implementation	Children will watch the behind scenes video of Wallace and Gromit - https://video.link/w/XBA5b and then in pairs, plan out and design their own animation using a storyboard.

4. How do I create a claymation?

Intent	Children will use their planning from the previous lesson to create their own clay based animation.
Implementation	Children will create plasticine characters and use Ipad camera functions to take small frame photographs to then convert into a stop motion animation. Children will learn how to edit their animation to ensure it flows freely.
Impact	Children will understand that animation in its most basic form has been used as a form of entertainment for over 100 years. Children will learn about Claymation as a new form of animation. They will be able to discuss the design and preparation stage and use this knowledge to plan their own animation. They will be able to create a Claymation animation using stop motion software on the Ipad.

Year 5/6 Plan B - ICT - Summer 1 - How can data be transmitted wirelessly?

1. What are barcodes and how can they be used to collect data?

Intent	Children will explore a variety of products that contain barcodes and identify patterns between them. They will understand the purpose of a barcode to collect data about each product.
Implementation	Children will explore a selection of products with barcodes and identify any patterns between them. They will then watch the video as to how and why barcodes were invented. https://www.youtube.com/watch?v=VbHxz4nWqWY Using Google sheets they will create a table of barcodes, the product they refer to and their manufacturer.

2. What are QR codes and what are their uses?

Intent	Children will know what a QR code is and how it works. They will be able to collect and use data stored in a QR code creating an understanding of their everyday uses.
Implementation	Children will engage in a class discussion about what QR codes are and where they have seen them used. Then using a QR scanner app on the Ipads children will engage in a QR code based quiz, wirelessly transmitting data to their devices using the QR scanner.

3. What is Infra-red and how is it used?

Intent	Children will learn about Infra-red light and conduct an experiment to show how it transmits data.
Implementation	Children will watch the video explaining how Infra-red works- https://video.link/w/I4jG They will also conduct an experiment to seek patterns within technological devices. Using different remote controls they will use the front facing camera to record the remote being pressed. This will show the Infra-red light and the pattern of wireless data-transmission.

4. What are RFID and NFC and how are they used?

Intent	Children will learn about 'Radio Frequency Identification' and 'Near Field Communication' and be able to discuss their uses.
Implementation	Children will view the presentation from Kapow. They will learn about RFID and NFC technologies and compile lists of all of their uses. Children will use the instructions from the presentation to create their own encrypted code using Google sheets. https://www.kapowprimary.com/subjects/computing/upper-key-stage-2/year-6/big-data-1/lesson-3-rfid/
Impact	Children will know about and be able to discuss different forms of wireless technology that can be used for data transfer. They will be able to explain why we need different types of technology and what advantages some have over others. They will be able to use vocabulary such as: wireless, transmission, encoded, encrypted.

Year 5/6 Plan B - ICT - Summer 2 - How do I create a webpage?

1. What is Google slides and how do I use it?

Intent	To explore the features of Google Slides and learn how to add content to a web page.
Implementation	Children will load up Google slides and a new webpage. They will explore the features of the new software, adding text and images.

2. How do I design a website?

Intent	Children will plan and design a website including pictures and information about their 'Make your money grow' project.
Implementation	Children will use their knowledge of Google Slides features from the previous lesson to plan and design a project website, in pairs.

3. How do I create a website?

Intent	Children will create a website including pictures and information about their 'Make your money grow' project.
Implementation	Children will insert pictures, headings and information into a Google slides webpage.
Impact	Children will develop the skills of planning, designing and creating a website using Google slides.