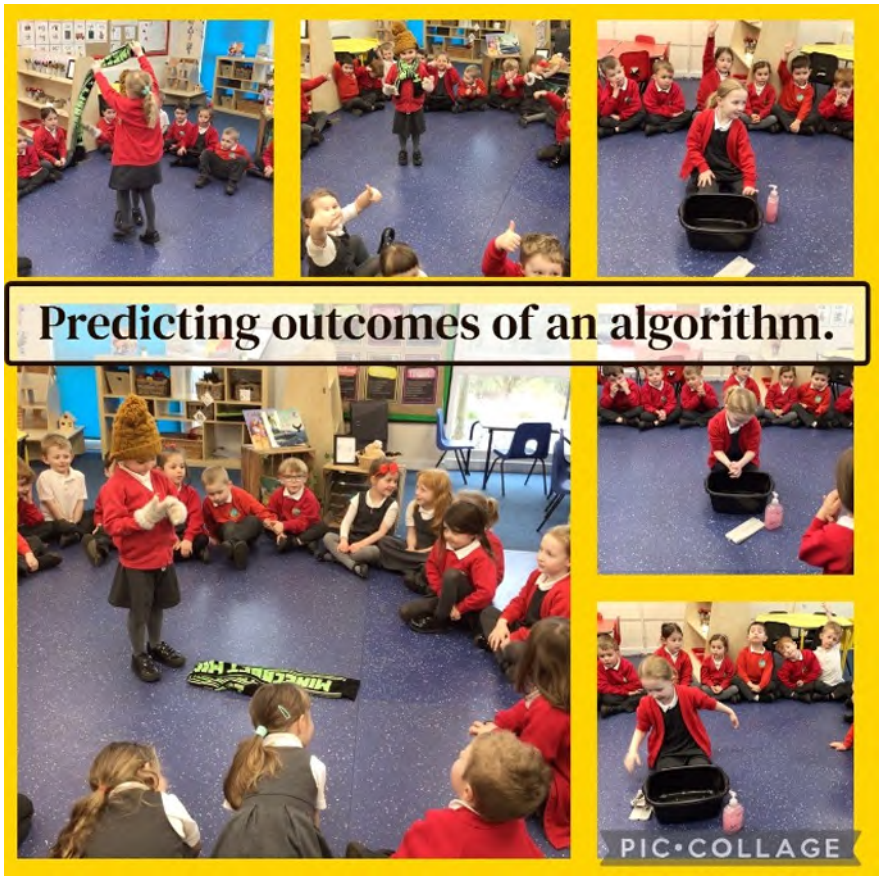
Computing Showcase

Reception: Programing: Beebots

The Reception children experimenting with programming a Bee-bot and learning how to give simple commands.

Reception: Programing: All About Instructions



The children using logical reasoning to understand simple instructions and predict the outcome. Following instructions as part of practical activities and games

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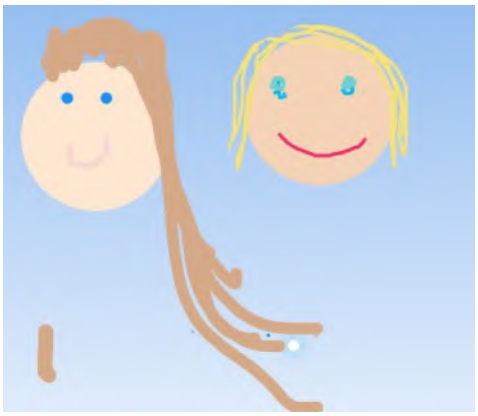
Year 1: Creating Media: Digital Imagery



The Year 1 children created a digital self-portrait on Seesaw, to develop an understanding of different software tools.

The Year 1 children created a digital picture from The Three Little Pigs. This helped them develop control of the Ipad through dragging, clicking and resizing images to create different effects.

Creating a digital picture story and learning how to operate a camera to take clear photos.

Year 1: Programming: Moving A Robot

The year 1 children Programming a floor robot to follow a planned route and using programming language to explain how a floor robot works.

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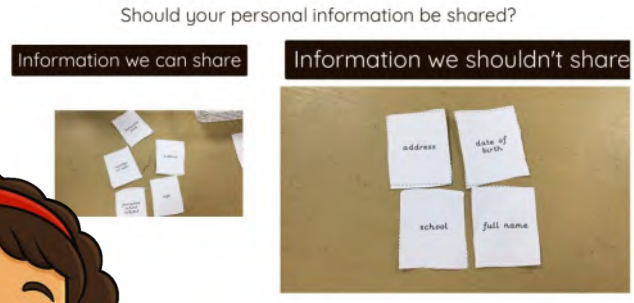
Year 1: Programming: Programming Animations

The Year 1 children using on-screen programming through Scratch Jr. The children explored the way a project looks by investigating sprites and backgrounds. They used programming blocks to use, modify, and create programs.

Year 2: Online Safety

The children learning to be respectful of others when sharing online and ask for their permission before sharing content.



Identifying whether information is safe or unsafe to be shared online.

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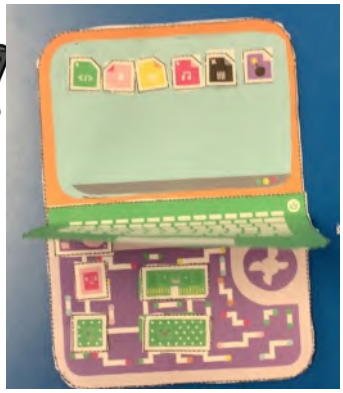
Year 2: Programming: Robot Algorithms & Quizzes

The children developed an understanding of instructions in sequences and the use of logical reasoning to predict outcomes. They also used given commands in different orders to investigate how the order affects the outcome. The children used and modified designs to create their own quiz questions in Scratch Jr using blocks of code.

The children then took their quizzes to complete with the Reception children.

Year 3: Computer Systems and Networks: Journey inside a computer



The children showing the basic inputs and outputs of a computer. The children decomposed a laptop to understand the purpose of computer parts.

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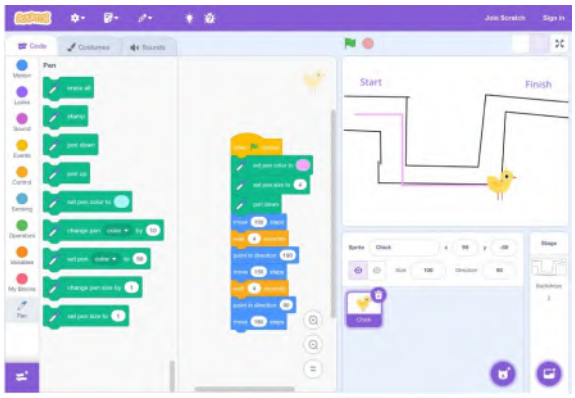
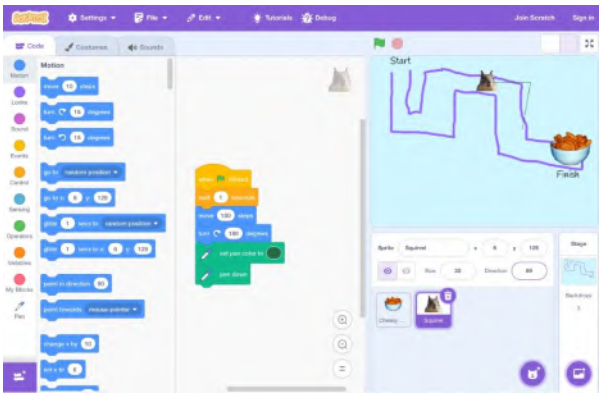
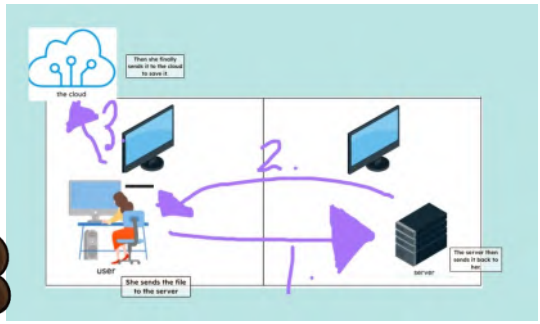
Year 3: Programming: Events and Actions in Programs

The Year 3 children explored the links between events and actions, while consolidating prior learning relating to sequencing. The children explored movement within the context of a maze, using design to choose an appropriately sized sprite. The children were given the opportunity to draw lines with sprites and change the size and colour of lines. They then designed and coded their own maze-tracing program.

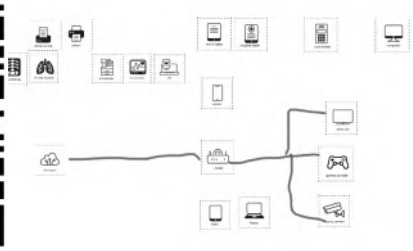




Year 3: Computing Systems and Networks – Networks and the Internet



The children Recognised that a network has two or more devices connected. They explained how information moves around a network and the role of the server and some of the journey a website goes through to reach your computer.



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Year 4: Data Handling – Investigating Weather

The children searched the web efficiently to find temperatures of different cities and record this accurately. They entered the detailed and the temperature into a spreadsheet to organise and sort the data in order of highest to lowest temperate. They then designed an automated machine that uses selection to respond to sensor data. Here are the videos that the children created which includes weather forecast information. The children created and presented a weather report. They also designed a weather station that gathers and records sensor data, explained how it works and the units of measurement it would use.

Year 4: Computer systems and networks: Collaborative Learning

The children created a Google Form with a range of different questions types that will provide different types of answers, e.g. text, multiple choice or numerical values.

Creating a presentation using google slides to convey information including images and transitions.

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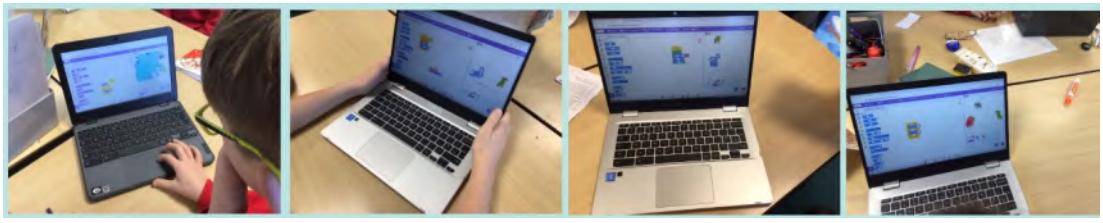
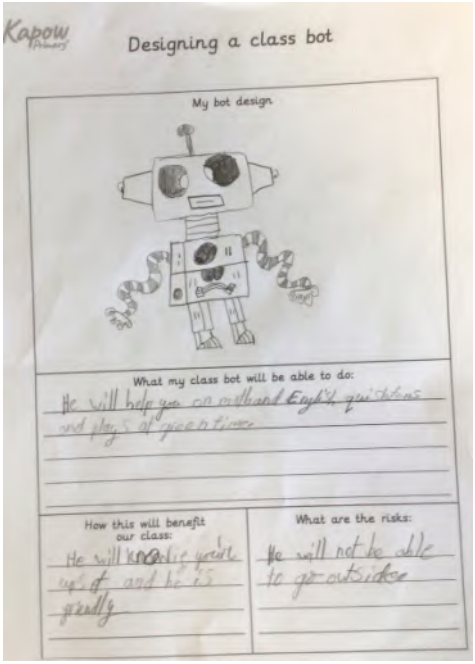
Year 4: Programming: Repetition Games



The children looked at the difference between count-controlled and infinite loops, and use their knowledge to modify existing animations and games using repetition. Their final project was to design and create a game which uses repetition, applying stages of programming design throughout.

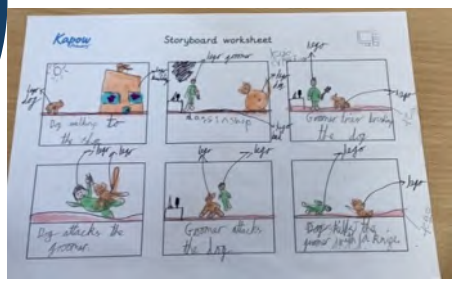
Year 4: Online Safety

The children learn that a Bot is programmed to work automatically and is a computer program that holds life-like human conversations. They explored and discussed the advantages and disadvantages of Bots. They then designed a Bot which needs to be safe and useful in the classroom.



Computing Showcase

Year 5: Creating Media: Stop Animation



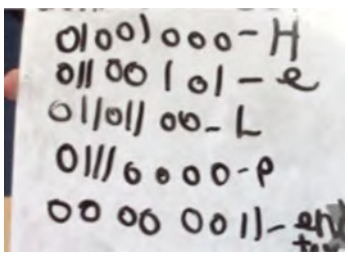
The aim of this unit is to understand what stop motion animation is. The children decomposed a story into a plan and created a stop motion animation. They had to use video editing software to present their final piece. Here are some of the stop animated that the children created.

Year 5: Data handling – Mars Rover

In this unit the children learn about the binary code and how to create numbers using the code. They have to understand how numbers are calculated using the binary code. They are introduced to a mathematician called George Boole who created the idea of using a series of 'on/off' values to encode messages. Taking inspiration from the Mars Rover and how astronaut send binary messages back to mission control the children create their own astronaut messages using a series of 8-bit binary codes and use the ASCII table to translate regular letters and symbols into binary.

To write hello, it would look like this:

- 0000010= start of text
- 0110 1000= h
- 0110 0101= e
- 0110 1100 = l
- 0110 1100 = l
- 0110 1111= o
- 00000011= end of text



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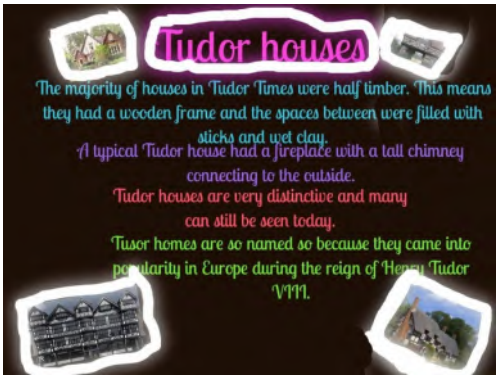
Year 5: Programing: Programing Music

The children began this unit by tinkering on Scratch with sounds. They applied their new knowledge of programming to code a piece of music that combined a variety of structures and was set for a purpose. They used loops in their programming to create a soundtrack.

Year 5: Computer Systems and Networks: Search Engines

The children learn and understand what a search engine is and recognise that things online are not always true so ensure they stay safe. The children use search engines to search effectively then create informative posters about Tutors linked to what they have found out. Finally the children learn about web crawlers and how these rate and rank results.



Computing Showcase

Year 6: E-Safety

Throughout the year how to stay safe online is revisited and built upon. Year 6 learn about the dangers of being scammed online and how to avoid it. They understand that they need consent from others before sharing material online and how content can still be shared online even if it is set to private.

Year 6 created online safety posters for the Calderdale Safeguarding Team Competition to demonstrate their knowledge.

Computing Showcase

Year 1 and 2 Computing Club: Creating Avatars