Blast Off!

Class Structure – 45min

Activity	Timing
Introductions & Warm Up	10 mins
Main Activity	25 mins
Final test & debug	throughout
Share with group	5 mins
Finishing Game	5 mins

Video Link -
https://vimeo.com/405001514/f50277d815

Overview
This project looks at the navigation of the ScratchJr application and introduces what some common blocks are and how to use them.

Learning Objectives
- To use Start on Green Flag block
- Explore the paint editor functions
- Use a range of blocks to make things move and have a go at recording some sound

National Curriculum Links
Computing
- Children will understand that programs execute by following precise and unambiguous instructions

Speaking & Listening
- To critique, evaluate and test their ideas and products and the work of others.

Warm up game: Introduce / recap key coding blocks
- Select the cards for the code blocks that the children will be using today. Draw the children's attention to the colour of each block. Do you notice anything about the blue code blocks? What do you think the yellow code blocks do?
- Run through the flash cards and invite the children to say/guess what each block does. If the class is mostly returning coders run quickly through the cards and get the children to say the name of each block in unison (doing it in different voices, e.g. loud, whisper, etc. makes it more fun).
- Praise the children for having a guess even if their answer is wrong.

Video Tutoring Adaptations

- Select the Moon background from the Library.
- Select the rocket character from the library and edit it to change the colour of the rocket and add in the child's face (if they want to).
- Select the shooting star and choose an alien character to add to the scene.
- Arrange the characters on the screen so that they are all in the correct starting positions.
- Code the shooting star and Alien characters first – test the Green Flag button to make sure these characters move after each of them have been coded.
- Code the rocket to blast off into space. They can play around with different movement blocks, the rocket does not have to follow the same movement pattern. Code the rocket to get smaller as it blasts off.
- Add in a sound recording for the countdown of the rocket '5, 4, 3, 2, 1, Blast Off!'
- Test the project and debug anything necessary.

Project Plan

MAMA.codes

Blast Off!

To Simplify

- Code only the rocket character
- Use only movement blocks to move the rocket. Once achieved, add in an appearance block and the sound block.
- What does the repeat forever block do?

Codesheets

Finishing Game

Play 'Beat the Teacher'

If you can correctly tell me what a block is for you get a point but if you get it wrong, I get a point. Let's see who can get the most points.

Run through each of the blocks to check children know what they are used for. If you have lots of new coders encourage them to have a guess.

Ending Session

Questions: *How did you find today's project? What was the best bit? What was the trickiest bit?*

MAMA.codes

Blast Off! Advanced

Advanced Version

Video Link -
https://vimeo.com/409749104/c9ae6dec3f

- Edit the background to make the planet red in Scene 1.
- Add in a second scene and edit the moon background to show a red planet. Can you delete the planet Earth image in the background?
- You will need to add three characters – the rocket that you had in Scene 1, an astronaut and an alien.
- Astronaut character – can you add your face into the character and change the colour of their suit?
- Alien character – you could edit a library alien character or draw your own.
- Code the rocket to land on Mars – use some sound effects you think a rocket might make when it is landing.
- Code the Astronaut to appear from behind the rocket once it has landed – using Message blocks. Remember, the last character that you touch will show up on the top. What will your character do? How will he walk? Remember you are on another planet – they might move really slowly because of gravity.
- Code your Alien to appear. What will they say to the Astronaut? Will they be friendly? Or will they be scary? Remember that the last character that you touch will show up on the top.
- Can you carry your story on? What do you think their conversation would be about?

Codesheets