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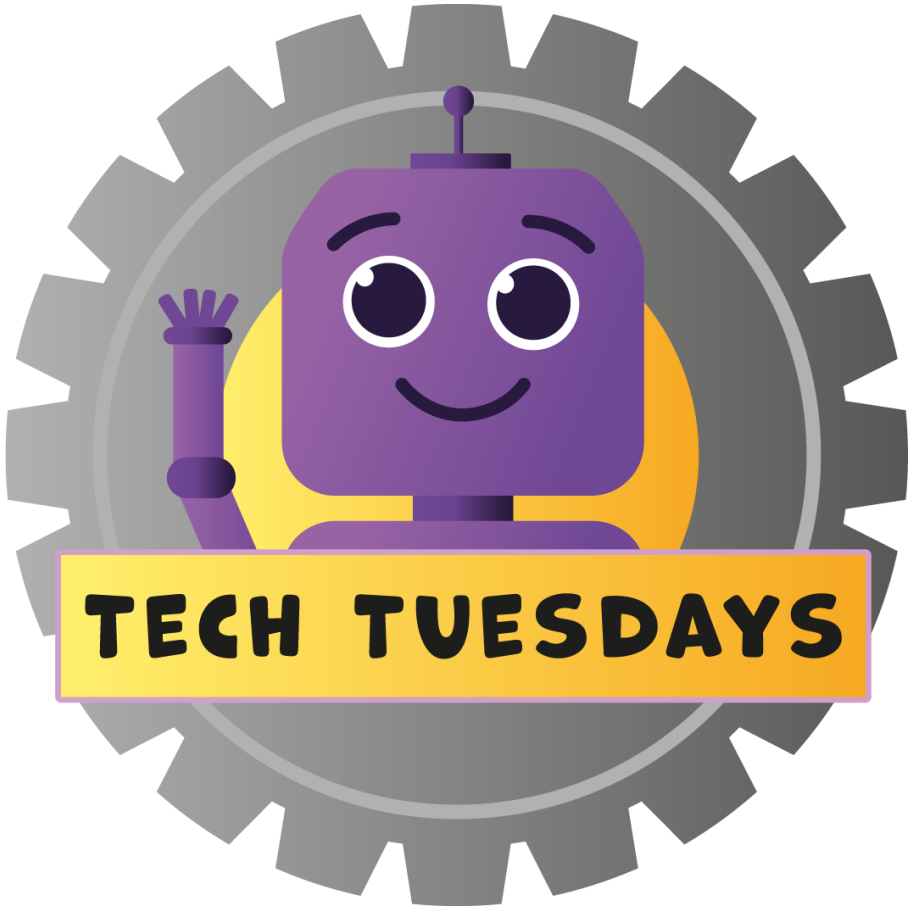
ALIEN ORBIT (MAKECODE ARCADE)



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ALIEN ORBIT

In this Tech Tuesday lesson, you will be introduced to Microsoft MakeCode Arcade.

You will use different coding blocks to control an alien spaceship flying around planet Earth.

You will find further suggestions of how this skill can be used across the curriculum within this guide.

TECH TUESDAYS

LEARNING INTENTION

We are learning to develop a sequence of instructions.

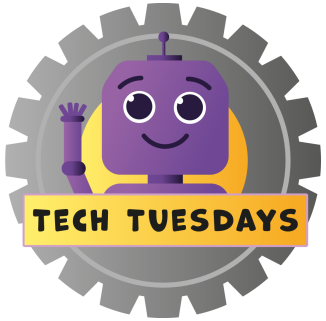
SUCCESS CRITERIA

- **Identify** what different coding blocks do.
- **Organise** different coding blocks into a sequence to control a sprite.
- **Check** my sequence before moving the sprite.

DIGITAL NL DIGITAL SCHOOL LEARN

PRIOR KNOWLEDGE

- Do you know what a ‘sequence’ is? If you do, try explaining a ‘sequence’ to the rest of your class.
- Have you ever coded anything before? How did the blocks of code fit together? What did you code?
- How do you think computer games know which way you want characters to move?



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ACTIVITY

1. **Access** Microsoft MakeCode Arcade. Open and name a new project.
2. **Add** a space background and a spaceship sprite.
3. **Add** blocks that tell the spaceship to stay on the screen and to follow the controller.

Scan to visit Microsoft MakeCode Arcade

IMPORTANT INFORMATION

- Suggested for Early Level.
- Requires iPads/Laptops/PCs and Smart board to display video.
- Click link to access arcade.makecode.com

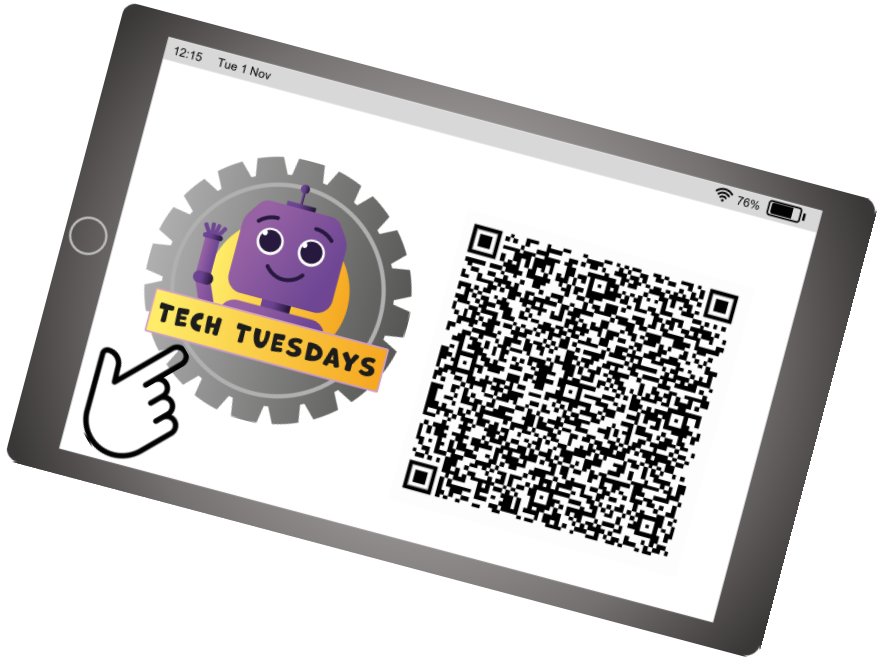
TOP TIPS

- Work on your own or with a partner.
- We recommend having pupil digital leaders or senior pupils available to provide support!

MODELLED EXAMPLE

Click the link to watch a North Lanarkshire Digital Pedagogy Practitioner model this activity.

Remember, you can use this skill in a different context.



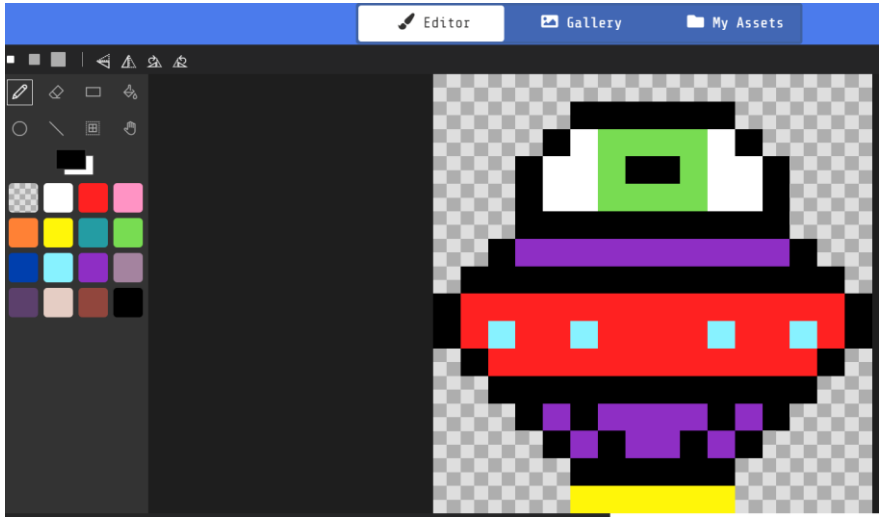
ACTIVITY

FIRST STEPS

Try adding the background and sprite of your choice. Perhaps add more than one sprite.

LOOKING FOR A CHALLENGE?

Instead of using one of Microsoft MakeCode Arcade's sprites, how about designing your own? Use the sprite editor to create a spaceship or an alien!



TECH TUESDAYS

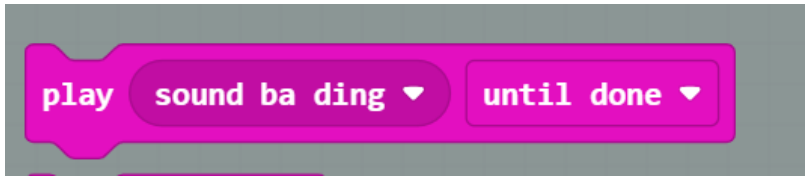
REFLECTION

- Can you now explain what a sequence is?
- What were some of the coding blocks you used? What did the different blocks do?
- What other sprite would you like to code? Which background would you choose?

SUGGESTED ACTIVITIES

TECHNOLOGY

Experiment by adding some new blocks to your 'Alien Orbit' program. You could make your spaceship play a sound as it flies:



Or perhaps your spaceship could say something?:

LITERACY

Are there any sprites in Microsoft MakeCode Arcade that remind you of a character from your reading book? Try using this sprite and a background to recreate a scene from your book.

PHYSICAL EDUCATION

Turn your alien spaceship into a P.E. teacher! Whenever the alien is moved to the left, your class needs to run, jog or hop to the left of the hall! If it moves right, you all move right!

CURRICULAR LINKS

I understand that sequences of instructions are used to control computing technology. **(TCH 0-14a)**

LINK TO PATHWAYS

Understanding the World through Computational Thinking

KEY VOCABULARY

CODE

Instructions used to communicate with computers.

SPRITE

A character or object that can be programmed.

SEQUENCE

A sequence of related things organised in a particular order.

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SHARE YOUR LEARNING

We love to see you all taking part in our Tech Tuesdays lessons. Remember to share your learning with us online.

TECH TUESDAYS

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TEACHER FEEDBACK

Feedback helps us to improve our lessons or just lets us know we're doing a good job. Please scan or click the QR code below to access our Tech Tuesdays feedback form, to share your comments and views.

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