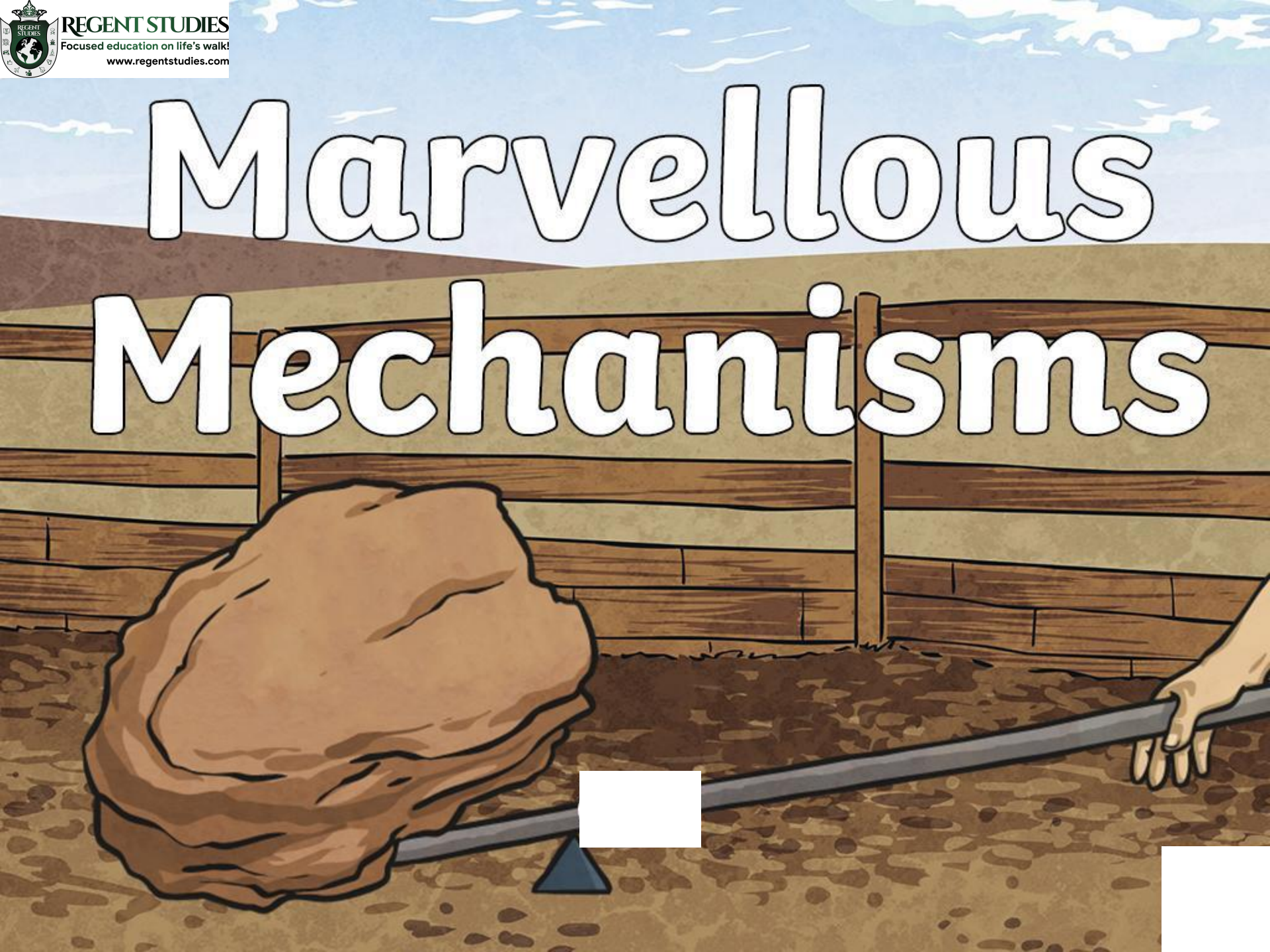
# Science

## Forces

# Marvellous Mechanisms



# Aim

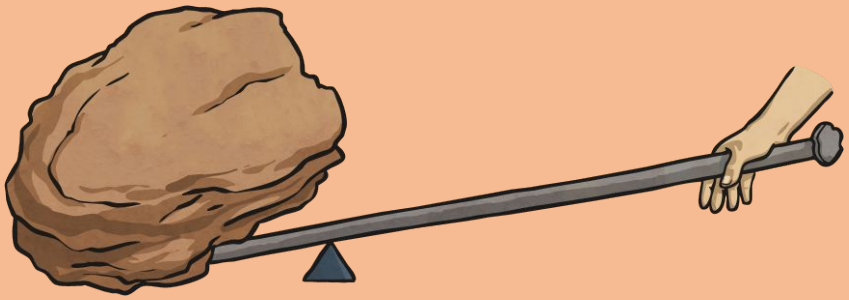
- To explore and design mechanisms.

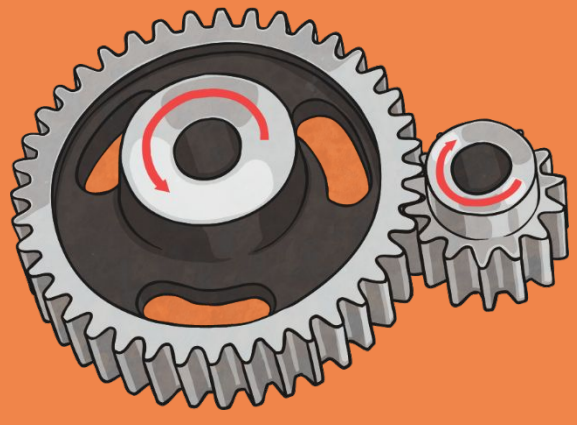
# Success Criteria

- I can explain how different mechanisms work.
- I can investigate a simple mechanisms.
- I can design my own mechanism for a given purpose.

# Talk about It

Discuss your ideas with a partner.





# What Are Mechanisms?

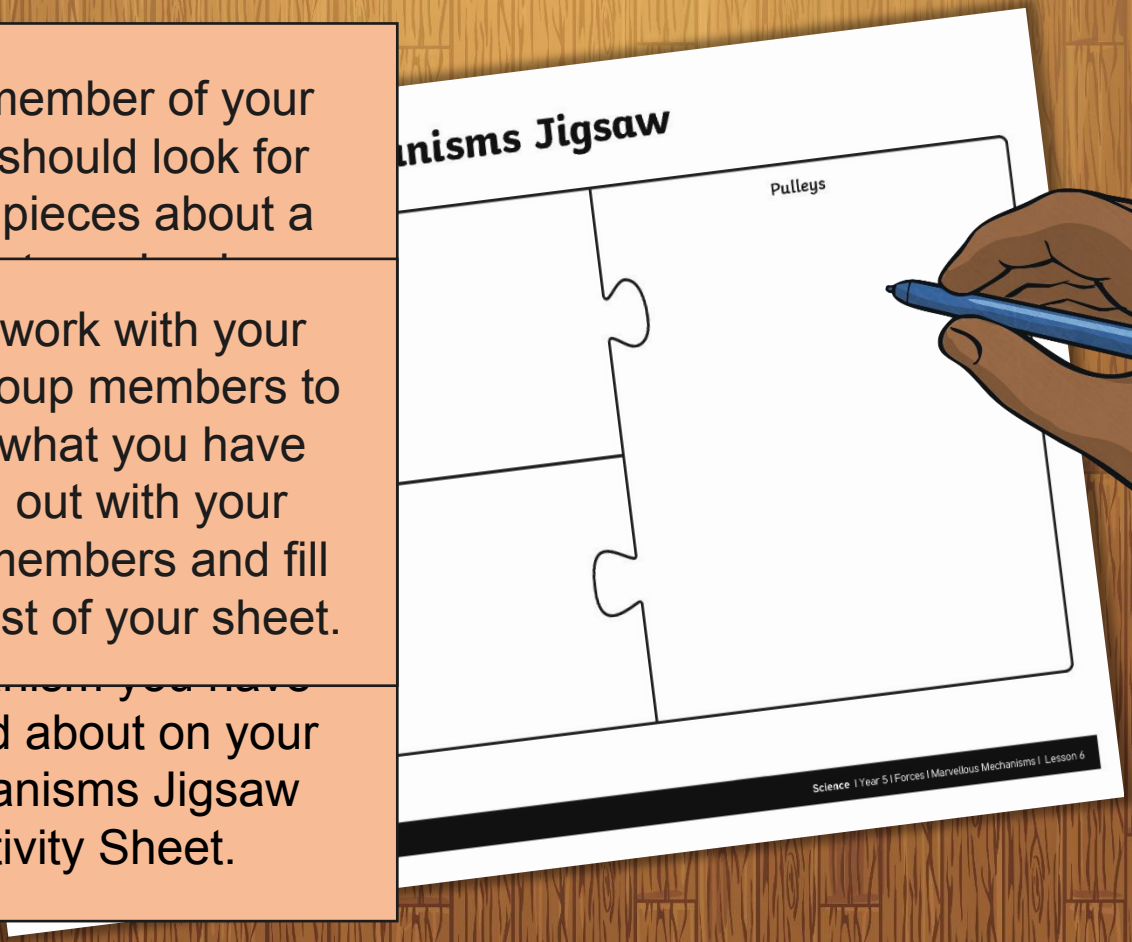
Work in groups of three to find out more about some of the different types.

# What Are Mechanisms?

Each member of your group should look for jigsaw pieces about a

Then, work with your other group members to share what you have found out with your group members and fill in the rest of your sheet.

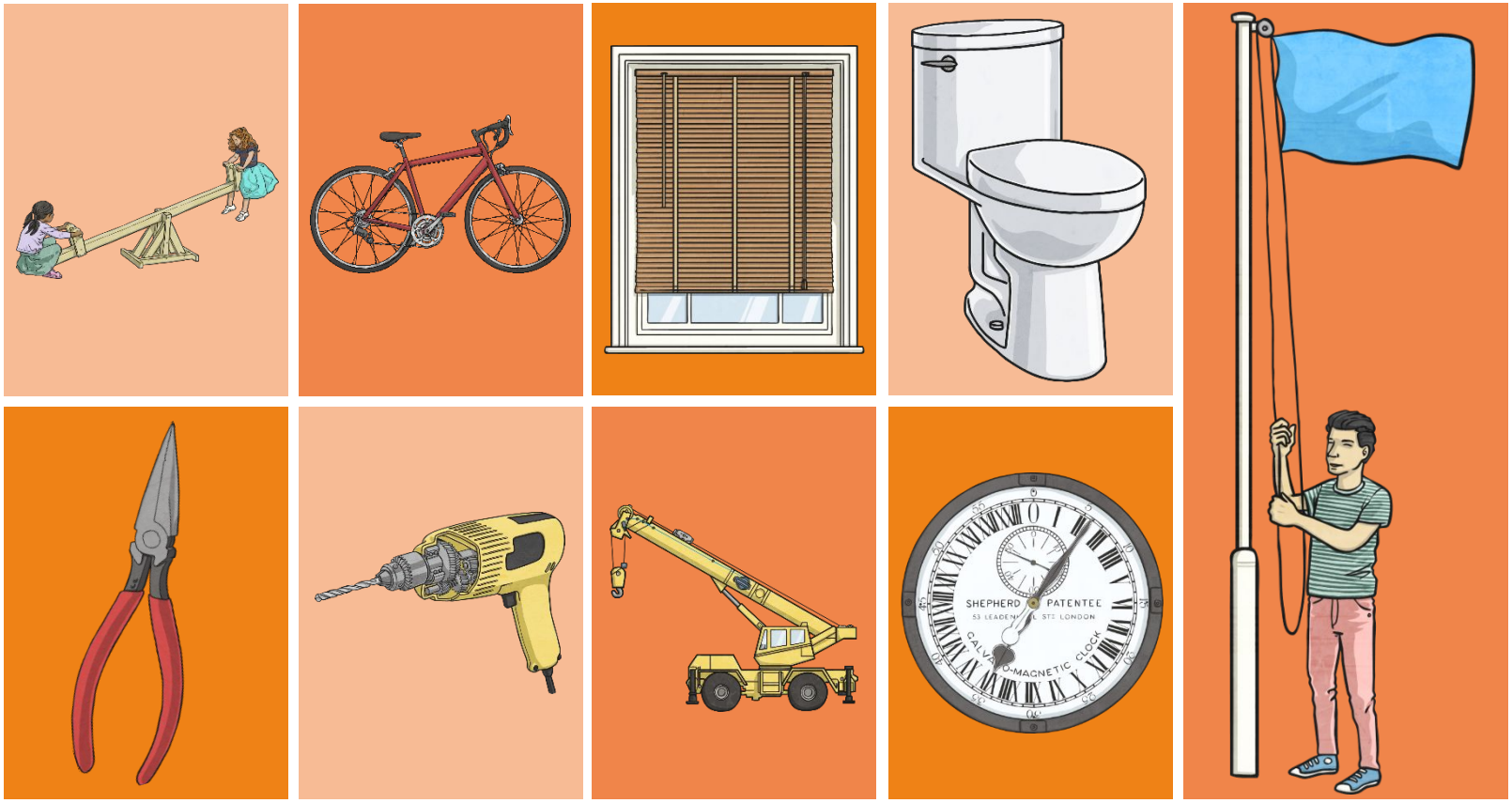
learned about on your Mechanisms Jigsaw Activity Sheet.



# Identifying Mechanisms

Whole Class

Can you identify whether these objects use **levers**, **pulleys** or **gears**?



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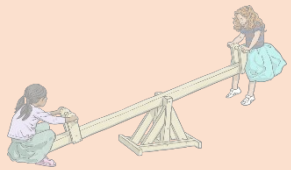
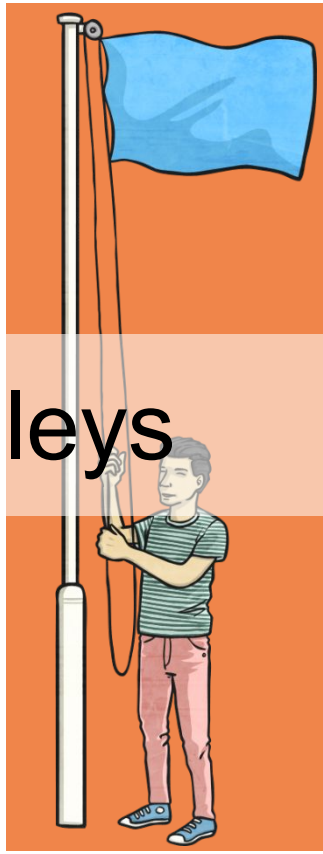
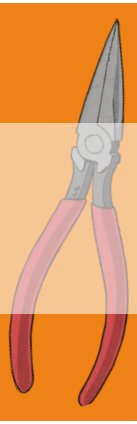


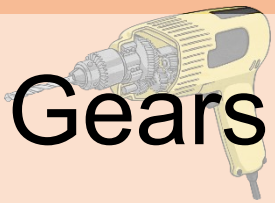
Levers

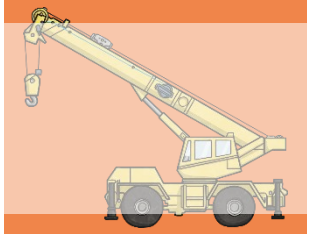


Pulleys



Gears



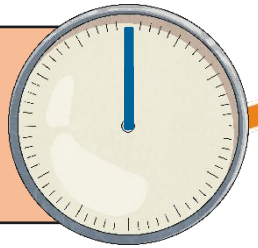


# Cracking Contraptions

Look at the mechanisms inside a watch.

Which mechanisms can you see?

The gears turn to move the hands around the clock face.

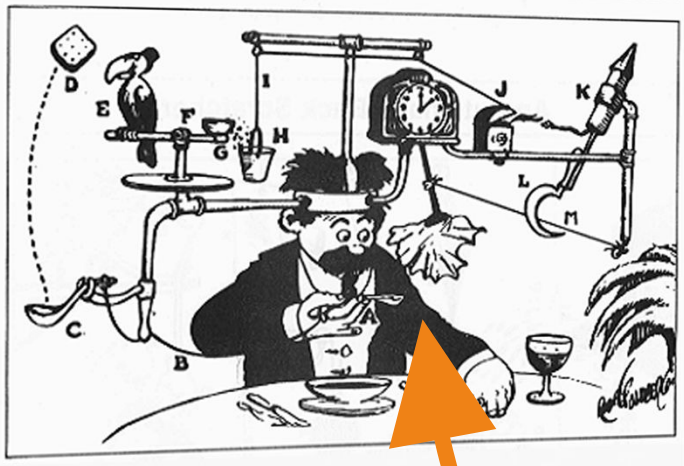


# Cracking Contraptions

Which mechanism do you think might be used in a bike brake?

...o you think ...a bike brake?

# Cracking Contraptions



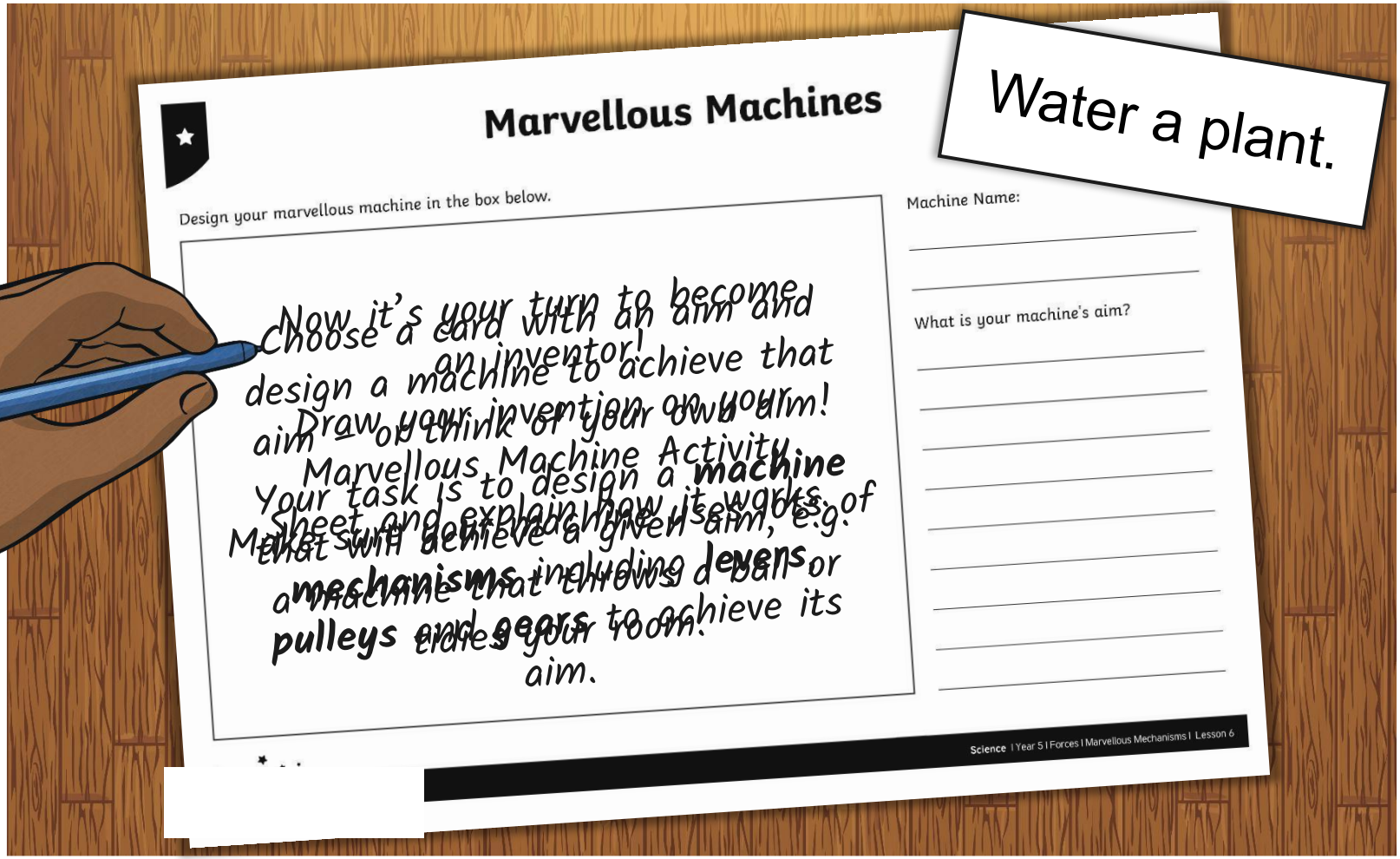

*Some designers and cartoonists have fun drawing and creating crazy machines that use lots of mechanisms to achieve a simple task.*

*This is an invention drawn by Rube Goldberg, a famous cartoonist.*
*He has designed a 'Self Operating Napkin', so that when the man in the picture lifts his spoon, it sets off a series of mechanisms that eventually work together to lift the napkin to wipe his mouth!*

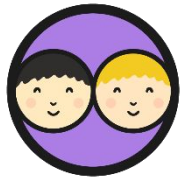
# Cracking Contraptions

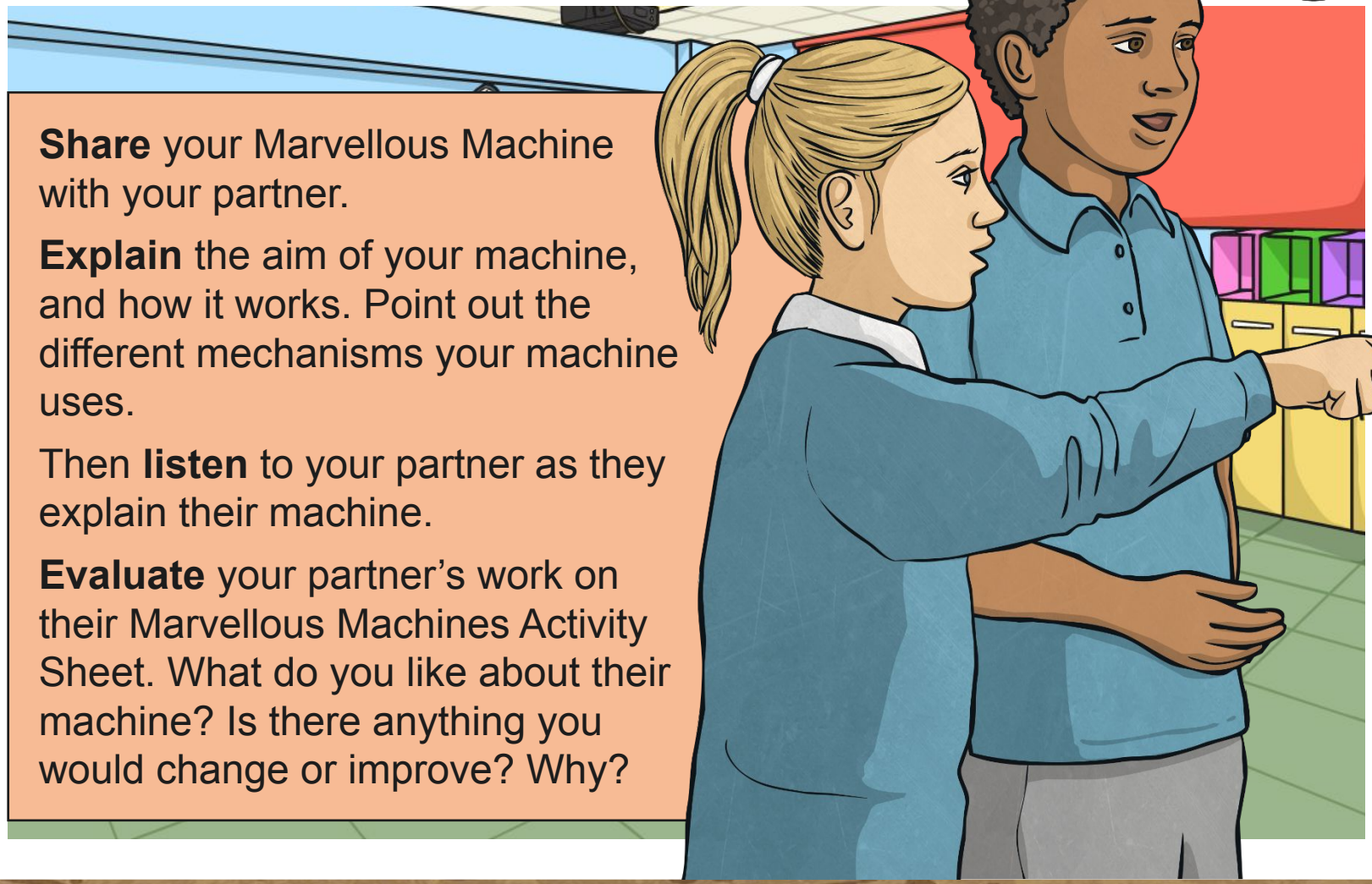
There are lots of popular games where players set off a series of different mechanisms that work together to achieve an objective.

# Marvellous Machines



# Time to Evaluate





**Share** your Marvellous Machine with your partner.

**Explain** the aim of your machine, and how it works. Point out the different mechanisms your machine uses.

Then **listen** to your partner as they explain their machine.

**Evaluate** your partner's work on their Marvellous Machines Activity Sheet. What do you like about their machine? Is there anything you would change or improve? Why?

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