

2000471

Jump up and cheer!

Lesson Plan



Build a cheerleader and explore how cams push objects up and down. Make a Minifigure jump up and down! In this lesson, your pupils will explore how pushing on an object can change the direction of its motion and start or stop its movement.

🕒 30–45 Minutes

📦 Beginner

🎓 Key Stage 1

Engage (Whole Class, 5 Minutes)

- Have your pupils look at the picture of the model on their Student Worksheets and predict how the Minifigure will move.
- Ask questions to start them thinking. Here are some suggestions:
 - How do you think the Minifigure will move? *(As the gears turn, the cam [sloped purple brick] moves the Minifigure move up and down.)*
 - What do you think starts and stops this movement?
- Transition your pupils to the building challenge.

Explore (Individual Work, 20 Minutes)

- Have your pupils work independently to build the Cheerleader model by following steps 1 – 12 of the building instructions (found in the box).

Explain (Whole Class, 10 Minutes)

- Prompt your pupils to explain how the Minifigure jumps up and down.
- Ask questions like these:
 - What makes the Minifigure jump up and down? *(When the small gear turns, the teeth push the big gear to make it turn. The sloped purple brick, which is also called a 'cam', pushes the Minifigure up and down as the big gear turns.)*
 - Why can't the Minifigure move up and down when the small gear is turned in the other direction? *(The flat side of the sloped brick stops the gear from turning.)*

Elaborate (Individual Work, 10 Minutes)

- Have your pupils create drawings, short videos or audio recordings explaining how the Minifigure is moving.

Evaluate (Individual Work)

- Ask each pupil to give an example of a push force that is at work in their model.

Build a cheerleader.

- Open the building instructions book.



- Explain how your Minifigure moves.
- Why does it stop moving when you turn the purple gear the other way?