



Rube Goldberg

LINKED CHALLENGE

To use a mechanical chain reaction to make a ball roll into a basket



ACTIVITY OVERVIEW

Children to work in pairs. Each pair to be given a tennis ball and container and encouraged to work backwards from the ball going into the container. For example: a container could be laid sideways or attached the end of the table with the tennis ball in front of it. Children then work to set in place a mechanical chain reaction to push the ball forwards. This could be triggered by dominoes falling, toys rolling down ramps etc. Children should be encouraged to test, adapt and add to their chain reaction in the time they have.

*Top Tip: use the QR code to share an example of a Rube Goldberg experiment before the children begin.

RESOURCES

Tennis balls	Marbles
Containers	Lego
Dominoes	Junk resources: cardboard tubes, boxes etc.
Ramps	
Toy cars	

KEY FACTS/SCIENCE

The mechanical chain reaction starts by setting off the first part of the invention. This leads to a series of events that continue until the aim of the invention has been met. In each case, a force (push or pull) is produced that could: start/stop something moving; change the speed/direction of a movement; change an object's shape. Energy (the ability to do some work) is transferred from one object to the next throughout the chain reaction.

This activity is very much about problem solving, construction and working together.

Children should be encouraged to predict what will happen as they carry out the process and as they watch the inventions of other groups.

QUESTIONS/FURTHER LEARNING

- How does it work?
- What did you/will you need to change?
- Could you make the invention longer?
- What makes a good invention?

