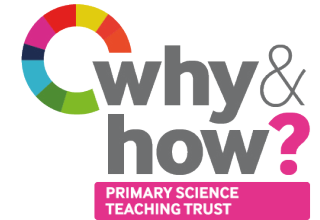




Gustave Eiffel

LINKED CHALLENGE

To build a tall and stable structure



ACTIVITY OVERVIEW

Two groups with two different sets of equipment (see resources list).

Activity leader to encourage children to recognise the structure of the Eiffel tower and its wide base. The wide base allows for better support. *Check out the QR code for a simple demonstration.

Activity leader to set initial challenge for children and let them explore the equipment. Children reminded they can decide to ask for a 'top tip' as a group if they find the challenge difficult. Activity leader to then determine how much of a pointer the group needs to get on track.

KEY FACTS/SCIENCE

The main issue for towers and tall buildings is stability. Gravity pulls everything towards the centre of the Earth; an unstable structure will have unbalanced forces, causing it to topple in the direction of the greater force. The taller the tower, the greater its weight and need for greater support. The weight of an object is the force acting on an object's mass due to the pull of gravity. The Eiffel tower is a good example of how to create a stable structure: it has a wider base so that material at the bottom of the tower is able to take the combined weight of the material above it.

RESOURCES

GROUP 1

Marshmallows
Spaghetti

GROUP 2

Midget gems
Cocktail sticks

GENERAL RESOURCES

Metre ruler
Scissors

QUESTIONS/FURTHER LEARNING

- Which is the tallest tower?
- Which is the most stable tower?
- Which tower do you think is best and why?
- How could you change your tower to make it better?

