

# SCIENCE ALIVE!

## SPAGHETTI TOWER

### CHALLENGE

Get your students prepared for the Science Alive! **STEM DAY OUT Spaghetti Tower Challenge**. In a race against the clock, each team must construct a tower using only marshmallows and dried spaghetti. The aim is to build the tallest and strongest structure. The tower must stand unaided for 30 seconds.

#### At school activity

Ask your students to work collaboratively in groups to build a tower using the supplies provided. Have the students use the design cycle to test their ideas ahead of the STEM Day Out Challenge. They should be given the opportunity to redesign as they construct their tower. Ask them to identify what shapes seem to be the strongest.

#### Objectives:

- Utilise design and engineering processes
- To construct the tallest tower possible using spaghetti and marshmallows
- Work collaboratively in a team
- Use observation, curiosity, creative problem-solving and teamwork skills

#### Instructions:

- Working into groups of three, build a tower using only spaghetti and marshmallows  
You may not use any other materials to assist in the support of your tower
- The team will have 30 minutes to complete the challenge
- When time is called, your tower must stand unassisted.

#### Discussion for students:

- What challenges did you have building the tower?
- What do you think engineers have to consider when they are building structures?
- What could you do to make your tower stronger, either by creating different shapes or replacing parts with different materials?

#### What you will need:

- Spaghetti
- Marshmallows

#### Curriculum Links:

##### Science

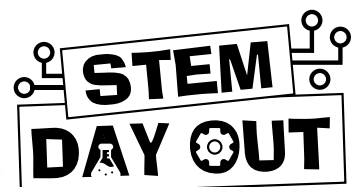
##### Science Inquiry Skills – Years 7-9

- Planning and conducting
- Processing and analysing data and information
- Evaluating
- Communicating

##### Design and Technologies

##### Processes and Production Skills – Years 7-9

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