

# **Biological sciences**



#### TASK:

Design and create a self-watering pot plant so the soil is always damp.

### **CRITERIA:**

- It must be made using a 2-L plastic bottle.
- It must hold 3 cups of soil.
- It must hold 3 cups of water.

FOUNDATION



#### SUGGESTED MATERIALS:

- pre-cut 2-L plastic bottle
- 3 cups soil
- 3 cups water
- 1 seedling
- 1 stocking leg

# **Biological sciences**

### Self-watering pot plant

- Find out about self-watering pot plants made from plastic bottles.
- Plan and draw a diagram of your self-watering pot plant.
- Collect the materials you will need, including a 2-L plastic bottle, 3 cups soil, 3 cups water, 1 seedling and 1 stocking leg.
- Create your self-watering pot plant to look like your plan.
- Check that your self-watering pot plant meets the criteria.
- Create a video of your self-watering pot plant, giving instructions of how to make it and how they help plants to meet their needs.



### Earth and space sciences

### Constellations

#### TASK:

Design and create three star constellations—the Big Dipper, the Southern Cross and Orion.

### **CRITERIA:**

- Each constellation model must be made using raw spaghetti and marshmallows.
- Each model must be smaller than 10 cm at it's longest point.
- The marshmallows must show the position of the stars and the spaghetti must show the imaginary lines that make the constellation.

BOX-1

#### SUGGESTED MATERIALS:

Project

- marshmallows
- raw spaghetti
- ruler



### Earth and space sciences

# Project

### Constellations

- Find out what each constellation looks like.
- Plan and draw a diagram of your three constellation. Label the number of pieces of spaghetti and number of marshmallows you will need for each constellation.
- Collect the materials you will need, including marshmallows, raw spaghetti and a ruler.
- Create your constellations to look like your plan.
- Check that your constellations meet the criteria.
- Give a presentation explaining each constellation and what time of day you can see constellations.



## **Physical sciences**

### Fidget spinner

### TASK:

Design and create a fidget spinner using plastic bottle lids.

#### **CRITERIA:**

• It must be in a triangular shape.

BOX-2

- It must spin freely when you hold the centre of the fidget spinner.
- You must make a video showing how your fidget spinner spins differently with different amounts of push.

### SUGGESTED MATERIALS:

Project

- plastic bottle lids
- cardboard
- a wooden skewer
- glitter
- PVA glue
- a digital camera or iPad<sup>®</sup>



## **Physical sciences**

### Fidget spinner

Project

- Find out how to make fidget spinners using plastic bottle lids.
- Plan and draw a diagram of your fidget spinner. Label the materials you will use to make each part.
- Collect the materials you will need, including plastic bottle lids, cardboard, a wooden skewer, glitter, PVA glue and a digital camera or iPad<sup>®</sup>.
- Create your fidget spinner to look like your plan.
- Check that your fidget spinner meets the criteria.
- Give a presentation explaining how you made your fidget spinner. Show the video of your fidget spinner in action.

