# Up into space How can I design a vehicle for the future?

| Read and complete.                                       |  |
|--|--|
| astronauts computer control panel gravity handles        | A A A  |
| have a long training before they go to space.            |  |
| They practice moving in a zero chamber.                  |  |
| They wear a heavy spacesuit for several hours every day. | THE STATE OF THE S |
| They use when they practice space walks.                 |  |
| They learn to use the and to program the                 |  |
| 2 Listen and check .                                     |  |

### IN A SPACECRAFT.

- ... play soccer.
- ... eat three meals a day.
- ... cook.
- ... take a shower.

- .. do experiments.
- ... go on spacewalks.
- ... do the cleaning.
- ... sleep.





3 Read and number the instructions for a spacewalk.

- Use the handles outside the shuttle.
- Attach the safety rope.
- Check the control panel.
- Open the portal.
- Put on a spacesuit.
- Use the handles inside the shuttle.

### CODE CRACKER OO



### Lift off!

#### **VOCABULARY**

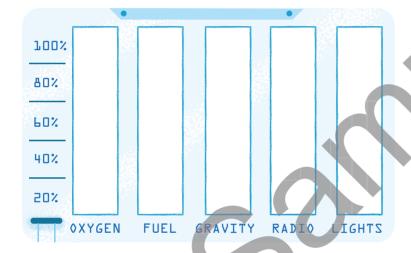
I will learn words to describe a control panel.

control panel Earth engine fuel

| 1 |      |     |     |        |
|---|------|-----|-----|--------|
|   | Read | and | com | plete. |

gravity handles lights oxygen The spacecraft is traveling to another planet radio screen seat The spacecraft has many parts. It has an \_\_\_\_\_ for firing the shuttle into space. There are \_\_\_\_\_ tanks for the engine. There are \_\_\_\_\_ tanks for breathing. There are a lot of \_\_\_\_\_ for seeing the controls. There's a \_\_\_\_\_ for the computer and a \_\_\_\_ for communicating with \_\_\_\_\_ . There's a \_\_\_\_\_ for checking supplies. There's a \_\_\_\_\_ in front of the instruments for the astronaut. There are for moving in zero .

# 2 🌇 Listen and color.



### **EXTRA VOCABULARY**

Look and write.

| 1 2      | 1 |  |
|----------|---|--|
| 5        | 2 |  |
| 3        | 3 |  |
| 4        | 4 |  |
| <b>-</b> | 5 |  |

cable camera keyboard screen USB ports

| 4 Ph Comple | ete | the riddles. |
|-------------|-----|--------------|
| Then check  |     | the answers. |

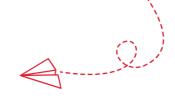
clear ear hear here near year (x2)

| 1 You can _ | loud and          |
|-------------|-------------------|
|             | but it isn't your |
|             | What is it?       |

- a a radio b a screen
- The new \_\_\_\_\_ is . The old \_\_\_\_ is What's the date? α December 31st b January 1st

# Language lab

**GRAMMAR: WILL AND WON'T** 



I will learn to talk about the future using will.

1 Listen and circle.

#### A city for the future

- 1 All buildings in the city will / won't be six floors high.
- 2 People will / won't grow food on the top of the buildings.
- 3 People will / won't use water tanks to collect rainwater.
- 4 The air will / won't be very clean. People will / won't use oxygen tanks.
- 5 People will / won't use cars. They will / won't travel by bus.
- 6 People will / won't use plastics. They will / won't recycle food waste.
- 2 Check 🗹 eight features for an apartment building in the future.

|              | bedroom | kitchen | living room | backyard |
|--------------|---------|---------|-------------|----------|
| computer     |         |         |             |          |
| screen       |         |         |             |          |
| radio        |         |         |             |          |
| robot        |         |         |             |          |
| smart lights |         |         |             |          |

3 Look at 2 and complete. CODE CRACKER OO My apartment building Key The have Use the green 1 words in 2. The have 2 Use will or won't. 2 3 The have Use the blue 4 The have words in 2. 5 The have The have

# 4 Ask and answer with a partner. Take notes.

| Name:        |         | Features of building |             |          |  |  |  |  |
|--------------|---------|----------------------|-------------|----------|--|--|--|--|
|              | bedroom | kitchen              | living room | backyard |  |  |  |  |
| computer     |         |                      |             |          |  |  |  |  |
| screen       |         |                      |             |          |  |  |  |  |
| radio        |         |                      |             |          |  |  |  |  |
| robot        |         |                      |             |          |  |  |  |  |
| smart lights |         |                      |             |          |  |  |  |  |



Will your building have a robot?

> Will the robot be in the backyard?

Yes, it will.

No, it won't. It will be in the kitchen.



Choose a room from your apartment. Make a model and write a description.

- Find a shoebox. Cut off the lid.
- Cut out the door and the windows. 2
- 3 Paint the inside of the box.
- Use recycled materials to make the furniture, for example, bottle tops, old card, aluminum foil.
- Paint the furniture. Glue it into position.

Use modeling clay for extra features.



| 星 |   |    |
|---|---|----|
| V | - | 4/ |

| My                       |           |
|--------------------------|-----------|
| This will be the best in | the city. |
| It will                  |           |
| It won't                 |           |
| I made the model with    |           |

# **Story** lab

**READING** 

I will read a story about a space colony.

# COLONY 369



- 1 Why are people living in a space colony? \_\_\_\_\_
- 2 What is the problem in the space colony? \_\_\_\_\_
- 3 Why are the Earth robots worried about the humans? \_\_\_\_\_\_
- 4 Why do the Earth robots open the secret door for the children? \_\_\_\_\_
- 5 Where can the children play on Earth? \_\_\_\_\_
- 6 What do the adults from Colony 369 promise? \_\_\_\_\_

## 2 Read and complete with the number of days.

- When there are 200 people in the space colony, they have oxygen for \_\_\_\_ days.
- When there are 100 people, they have oxygen for \_\_\_\_ days.
- When there are 400 people, they have oxygen for \_\_\_\_ days.
- When there are 50 people, they have oxygen for \_\_\_\_\_ days.

# OXYGEN: 30 Days for 200 People OXYGEN: 30 Days for 200 People

# **3** Find words in the story that mean ...

- 1 ... to make very, very dirty.
- 2 ... a new city a long way from the capital.
- 3 ... a moving machine with a computer program. It does human tasks.
- 4 ... to make something so bad it cannot survive.
- 5 ... to send and receive a message.
- 6 ... to find a solution.

MATH

ZONE



# 4 Some Make a promise tree for the future.

- Use marker pens to draw a big tree trunk with a lot of branches.
- Use green paper and cut out leaves.
- Write a promise for the future on the leaf.
- Ask your friends and family to write promises on the leaves, too.
- Glue the leaves on the tree.



# **5** Complete and circle the story review. Title: Main characters: Places: Time: future / present / past Problem: Solution:

- 6 Write your opinion of the story.
- Do you like the children in the story? Why?
- Do you think this will happen in the future? Why?
- What do you think of the story?

| • • •                         |         |      |   |   |   |
|-------------------------------|---------|------|---|---|---|
| Кеу                           | Му оріі | nion |   |   |   |
| 1 = very bad<br>5 = very good |         |      |   |   |   |
|                               | 0       | 2    | 3 | 4 | 6 |

# **Experiment** lab

**SCIENCE: SOUND AND COMMUNICATION** 

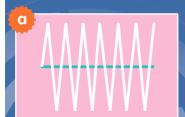


I will learn how to make a telephone.

1 Read and match.

# WE CAN SHOW SOUND WAVES IN GRAPHS

- Sound can have a high frequency or pitch. We hear this as a high sound, like a bird. There are a lot of waves in the graph for a high sound.
- Sound can have a low frequency or pitch.
  We hear this as a low sound like the bark of a big dog. There aren't a lot of waves in the graph for a low sound.
- Sound can be very loud with a high volume.
  When a sound is loud, the lines on the graph are taller.
- Sound can be very quiet with a low volume. When a sound is low, the lines on the graph are shorter.









2 Listen and circle.

1 Pitch: high / low

Volume: loud / quiet

2 Pitch: high / low

Volume: loud / quiet

3 Pitch: high / low

Volume: loud / quiet

4 Pitch: high / low

Volume: loud / quiet

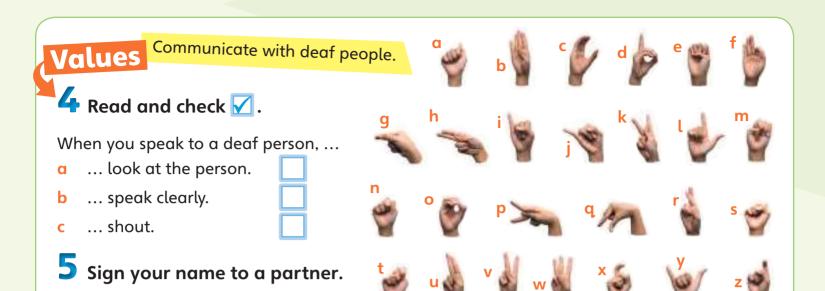
3 Draw graphs for the sounds in 2.











## **EXPERIMENT TIME**

### Report

1 Check 1 the correct picture and complete the sentences.



### **Experiment results**

My friend can hear me when ...

Read and circle. Then discuss with a partner. How difficult was the experiment?

Making a hole in the cup. Difficult / OK / Easy 2 Tying a knot. Difficult / OK / Easy Connecting the paper clip. Difficult / OK / Easy

Hearing my partner. Difficult / OK / Easy

Talking into the cup. 5 Difficult / OK / Easy Tying a knot was difficult because I'm not good with my fingers.



I know how to make a telephone.

### Questions with will

**COMMUNICATION** 



I will ask and answer about the future using will.

f 1  $\P$  Read and check  $\P$  or cross  $\P$ .

There are three Eco groups. They all make promises for the future. all the promises are different. All groups will recycle two things. They will only travel one way. They won't use one thing.

- Group A won't recycle glass. Group C will recycle food and glass. **Group B** won't recycle food.
- Group B won't travel by foot or by bus. Group A will travel with Group B. Group C won't use a vehicle.
- Group C will use plastic. Group A will use plastic bags, but they won't use plastic bottles. Group B will use plastic bottles, but they won't use plastic bags.



|         |      | Recycle |       |      | Travel by |     |                 | Use  |                    |
|---------|------|---------|-------|------|-----------|-----|-----------------|------|--------------------|
|         | food | glass   | paper | foot | bike      | bus | plastic<br>bags | cars | plastic<br>bottles |
| Group A |      |         |       |      |           |     |                 |      |                    |
| Group B |      |         |       |      |           |     |                 |      |                    |
| Group C |      |         |       |      |           |     |                 |      |                    |

2 © Complete your plan. Then ask a partner and take notes.

| *7 7 7     | FUTURE | PLANS      | > 7 7 A<br>A 2 7 7 > 7 |
|------------|--------|------------|------------------------|
|            | Me     | My partner |                        |
| Recycle    |        |            |                        |
| Travel by  |        |            |                        |
| Stop using |        |            |                        |



What will you recycle in the future?

I'll recycle plastic and paper.





can ask and answer about the future using will.



# **Writing** lab



I will learn to write a brochure.

**A BROCHURE** 



What will it be like in the future? Choose one and discuss.









a street

a school

a park

a shopping mall



What equipment will there be at a school in the future?

I think there'll be computers for all the students.



2 Make a brochure and draw a picture for the place you chose in 1.

# \_\_\_\_\_FOR THE SUTURE

Name: \_\_\_\_\_\_ Location: \_\_\_\_\_

Indoor features:

Outdoor features:

Write about the place you chose in 2.

, there will be \_\_\_\_\_



Design a vehicle for the future

**Project report** 

| 1 Check ✓ the features on your vehicle.           |
|---|
| computer engine handles lights radio screen seats |
| 2 Read and answer.                                |
| 1 How long will the vehicle be?                   |
| 2 How much will the vehicle weigh?                |
| 3 How fast will it go?                            |
| 4 What will be on the control panel?              |
| 3 Write a description of your vehicle.            |
| Name:   |
| My vehicle is                                     |
| On the outside,                                   |
| On the inside,                                    |
| 4 Complete the sentences and answer.              |
| difficult It is drawing a blueprint.              |
| easy It is following instructions.                |
| OK It is talking in English.                      |
| What did you learn?                               |
| 1 I learned                                       |
| 2   |
| 3   |

### 5 Listen and write the names.







#### 'S FUTURE PLANS

- live in a space colony
- play indoors
- work in the control room

#### 'S FUTURE PLANS

- live in a space colony
- work in the vegetable garden
- play indoors

#### 'S FUTURE PLANS

- live in an underwater city
- work in the vegetable garden
- play outdoors

#### 'S FUTURE PLANS

- live in a underwater city
- work in the control room
- play indoors

# 6 Look at 5. Read and circle T (True) or F (False). Then correct the false sentences.

- Mark will wear a spacesuit.
- Anna won't work in the control room. 2
- 3 Tessa will play outdoors.
- Simon won't wear a swimsuit.
- 5 Mark won't grow vegetables.
- Anna will wear a spacesuit.
- Tessa won't work in a control room.
- Simon will live underwater.

- T / F
- T / F
- T/F
- T/F
- T/F
- T / F
- T/F
- T/F

### **7** Complete the plans for your future.

#### IN THE FUTURE

Live:

Work: \_\_\_\_\_

Will you live in this city?



What work will you do?



8 Ask and answer with a partner.