3 Up into space

How can I design a vehicle for the future?

1 Read and complete.

astronauts computer control panel gravity handles



_____ 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.
They use _____ when they practice space walks.
They learn to use the _____ and to program the _____.

2 012 Listen and check ☑.

IN A SPACECRAFT, THE ASTRONAUTS ...

... play soccer.	☐	... do experiments.	☐
... eat three meals a day.	☐	... go on spacewalks.	☐
... cook.	☐	... do the cleaning.	☐
... take a shower.	☐	... 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



Sample

Lift off!

I will learn words to describe a control panel.

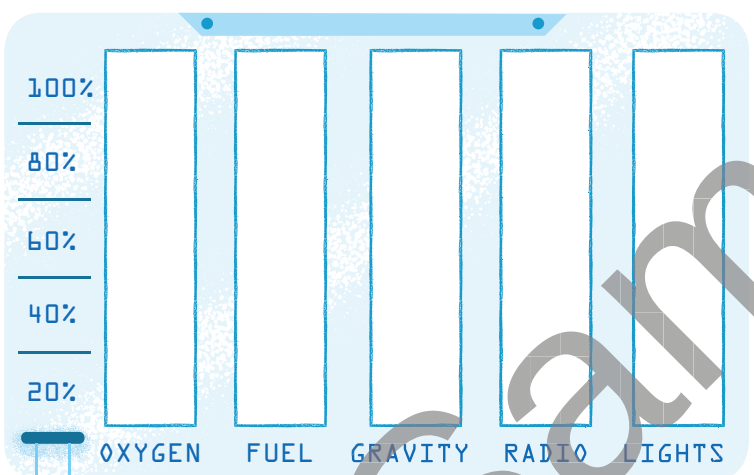
VOCABULARY

1 Read and complete.

control panel Earth engine fuel
gravity handles lights oxygen
planet radio screen seat

The spacecraft is traveling to another _____ .
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 _____ .

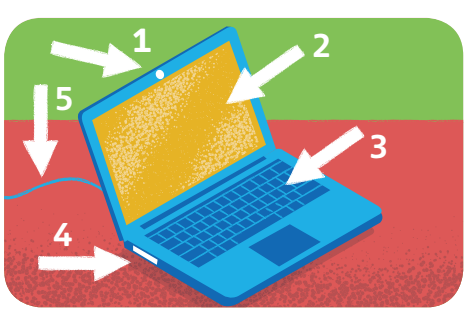
2 013 Listen and color.



EXTRA VOCABULARY

3 Look and write.

cable camera keyboard screen USB ports



1 _____
2 _____
3 _____
4 _____
5 _____

4 Ph Complete 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 ☐

2 The new _____ is _____ . The old _____ is _____ . What's the date?

a December 31st ☐
b January 1st ☐

Sample

I can use words to describe a control panel.

Language lab

GRAMMAR: *WILL* AND *WON'T*

*I will learn to talk about the future using **will**.*

1 014 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.

My apartment building

1 The _____ _____ have _____.
2 The _____ _____ have _____.
3 The _____ _____ have _____.
4 The _____ _____ have _____.
5 The _____ _____ have _____.
6 The _____ _____ have _____.

CODE CRACKER

Key

1 Use the green words in 2.
2 Use *will* or *won't*.
3 Use the blue words in 2.

Sample

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.



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

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



My _____

This will be the best _____ in the city.

It will _____ .

It won't _____ .

I made the model with _____ .

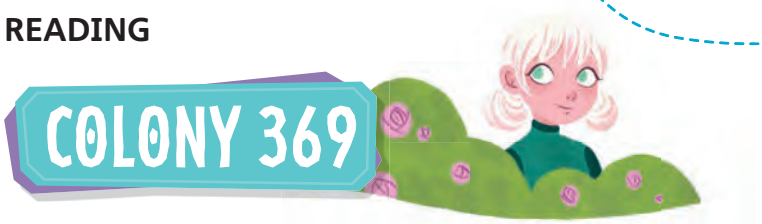
I can talk about the future using **will**.

Sample

Story lab

READING

I will read a story about a space colony.



1 Read and answer.

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.

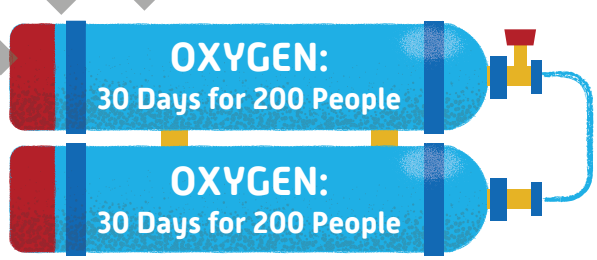
MATH ZONE

1 When there are 200 people in the space colony, they have oxygen for _____ days.

2 When there are 100 people, they have oxygen for _____ days.

3 When there are 400 people, they have oxygen for _____ days.

4 When there are 50 people, they have oxygen for _____ days.



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. _____

Sample

4 Make a promise tree for the future.

1 Use marker pens to draw a big tree trunk with a lot of branches.
2 Use green paper and cut out leaves.
3 Write a promise for the future on the leaf.
4 Ask your friends and family to write promises on the leaves, too.
5 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?

Key
1 = very bad
5 = very good

My opinion

_____

_____

_____

1 2 3 4 5

I can read a story about a space colony.

Sample

Experiment lab

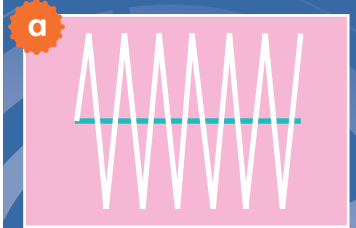
SCIENCE: SOUND AND COMMUNICATION

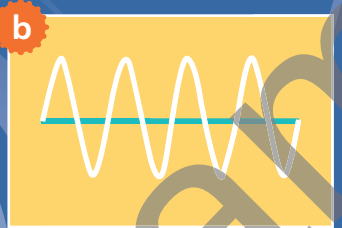
I will learn how to make a telephone.

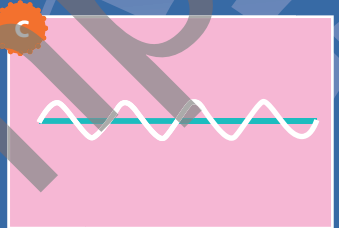
1 Read and match.

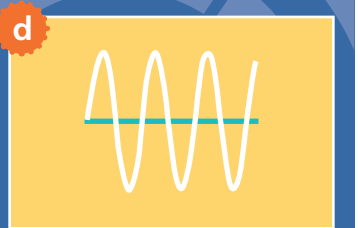
WE CAN SHOW SOUND WAVES IN GRAPHS

1. 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. ☐
2. 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. ☐
3. Sound can be very loud with a high volume. When a sound is loud, the lines on the graph are taller. ☐
4. Sound can be very quiet with a low volume. When a sound is low, the lines on the graph are shorter. ☐

a 

b 

c 

d 

2 015 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.

1 2 3 4

Sample

Values Communicate with deaf people.

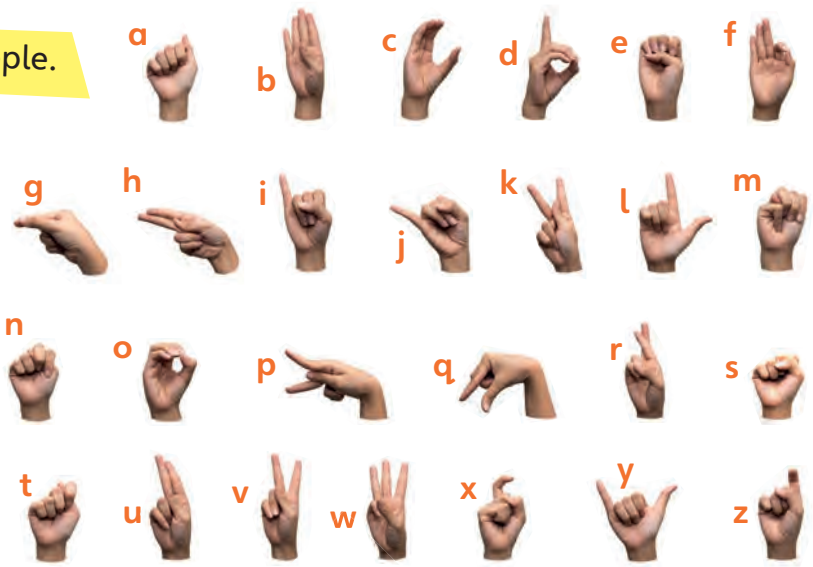
4 Read and check ☑.

When you speak to a deaf person, …

a … look at the person. ☐

b … speak clearly. ☐

c … shout. ☐

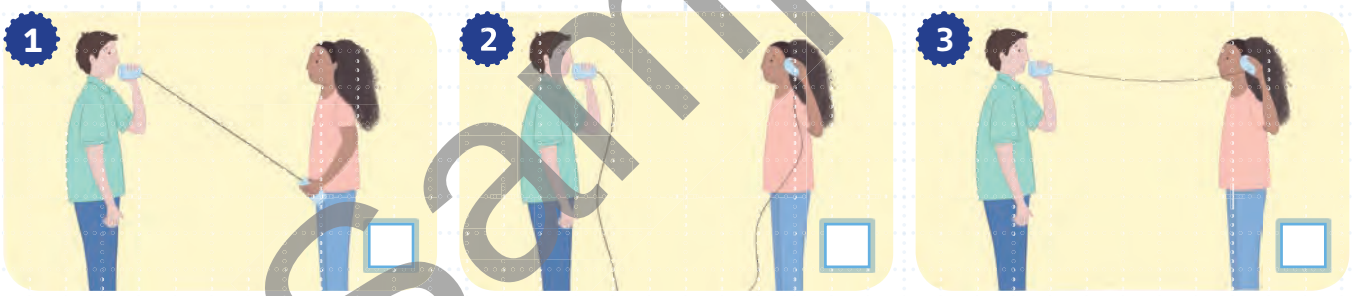


5 Sign your name to a partner.

EXPERIMENT TIME

Report

1 Check ☑ the correct picture and complete the sentences.



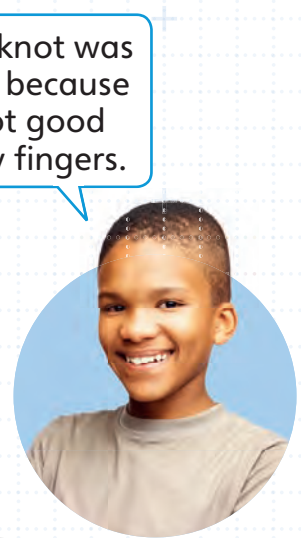
Experiment results

My friend can hear me when …

1 _____ . 2 _____ .

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

1	Making a hole in the cup.	Difficult / OK / Easy
2	Tying a knot.	Difficult / OK / Easy
3	Connecting the paper clip.	Difficult / OK / Easy
4	Hearing my partner.	Difficult / OK / Easy
5	Talking into the cup.	Difficult / OK / Easy



I know how to make a telephone.

Sample

Questions with *will*

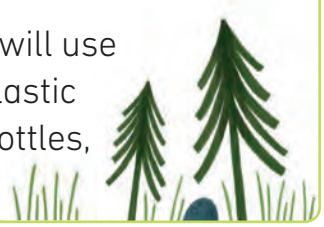
I will ask and answer about the future using **will**.

COMMUNICATION

1 Read and check ☑ or cross ☒.

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 bags	cars	plastic bottles
Group A									
Group B									
Group C									

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

FUTURE PLANS

	Me	My partner
Recycle		
Travel by		
Stop using		



What will you recycle in the future?

I'll recycle plastic and paper.



I can ask and answer about the future using **will**.

Sample

Writing lab

I will learn to write a brochure.

A BROCHURE

1 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 FUTURE

Name: _____

Location: _____

Indoor features: _____

_____

Outdoor features: _____

_____

Sample

3 Write about the place you chose in 2.

_____ , there will be _____ .

_____

_____

_____

I can write a brochure.

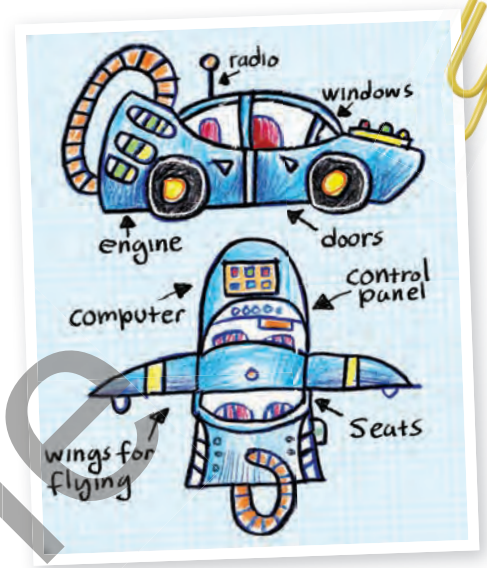
PROJECT AND REVIEW UNIT 3

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, _____ .

It can _____ .

_____

_____

_____

4 Complete the sentences and answer.

difficult
easy
OK

It is _____ drawing a blueprint.
It is _____ following instructions.
It is _____ talking in English.



What did you learn?

1 I learned _____ .

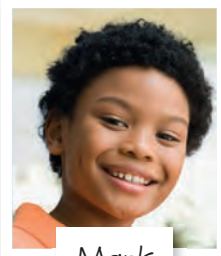
2 _____

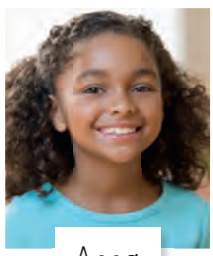
3 _____

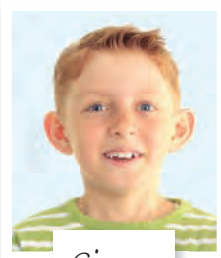
Sample

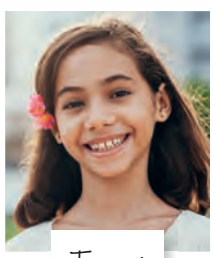
I can design a vehicle for the future.

5 016 Listen and write the names.


Mark


Anna


Simon


Tessa

_____'S FUTURE PLANS	_____'S FUTURE PLANS
• live in a space colony • play indoors • work in the control room	• live in a space colony • work in the vegetable garden • play indoors
_____'S FUTURE PLANS	**_____'S FUTURE PLANS**
• live in an underwater city • work in the vegetable garden • play outdoors	• 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.

1 Mark will wear a spacesuit. T / F _____
2 Anna won't work in the control room. T / F _____
3 Tessa will play outdoors. T / F _____
4 Simon won't wear a swimsuit. T / F _____
5 Mark won't grow vegetables. T / F _____
6 Anna will wear a spacesuit. T / F _____
7 Tessa won't work in a control room. T / F _____
8 Simon will live underwater. T / F _____

7 Complete the plans for your future.

IN THE FUTURE

Live: _____

Work: _____

Play: _____

8 Ask and answer with a partner.



Sample

Now go to your Progress Chart on page 4.