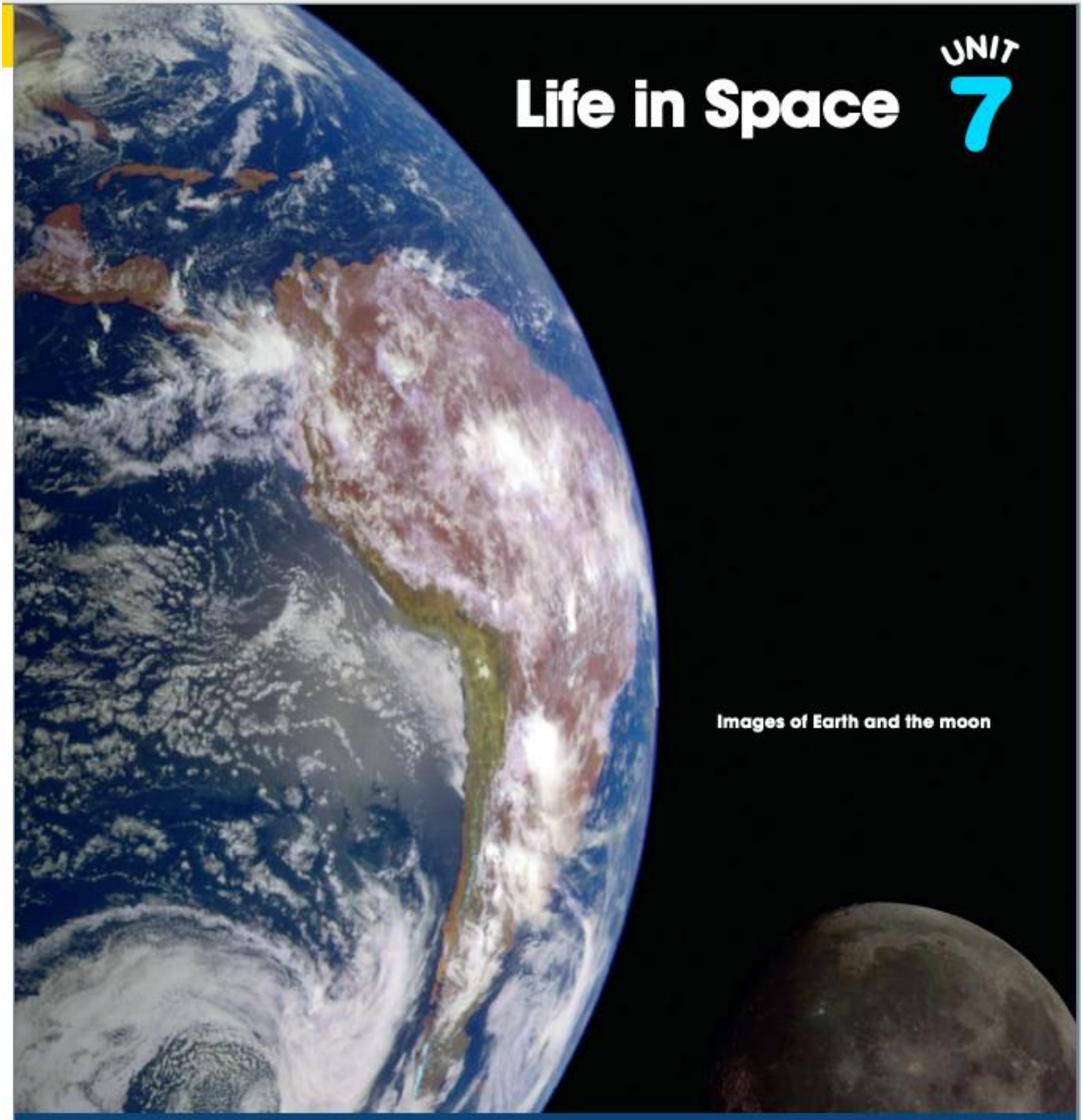
UNIT 7

Life in Space



Images of Earth and the moon

Work in pairs. Discuss the questions.

1. What can you see? Name as many things as possible.
2. What do you think of these images?
3. Guess. Who / What took these images?

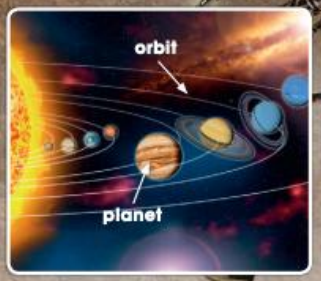
LESSON 1 Vocabulary

1 Listen and repeat. TR: 50


astronaut


land


rocket



solar system


space


spacecraft


take off

2 Complete the sentences with the words from the box.

astronaut	landed	orbits	planets
solar system	space	spacecraft	took off

1. A(n) _____ is a person who travels into _____.
2. Earth _____ the sun.
3. There are eight _____ in our _____.
4. In 2011, a _____ carrying the Curiosity rover _____ from Earth. In 2012, Curiosity rover _____ on Mars.

3 Listen to the description of the planet Mars. Circle the correct answer. TR: 51

1. In the past, Mars was *warmer / cooler.*
2. Mars is *smaller / bigger* than Earth.
3. A year on Mars is *shorter / longer* than a year on Earth.
4. Mars is *closer to / further from* the sun than Earth.
5. Mars is *hotter / colder* than Earth.
6. There are *rocks and ice / lakes and rivers* on Mars today.
7. The trip from Earth to Mars will be about *six months / six years.*

4 Work in pairs. Complete the sentences with your own ideas.

I want to travel to Mars because…
I don't want to travel to Mars because…

The Curiosity rover on Mars

Grammar LESSON 2

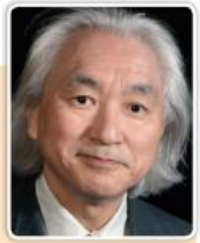
1 Study the grammar box.

Will for predictions

We use *will* to talk about the future when we make predictions.
We often use the verbs *think, hope,* or *believe* before *will.*
Some scientists think people ***will live*** *on Mars.*
Life on Mars ***won't be*** *easy.*
We use *perhaps* when we are not 100% certain about a prediction.
Perhaps *we'll* ***build*** *houses on Mars.*

2 Complete the text with *will / won't* and the verbs from the box.

build eat grow help not live travel



Michio Kaku is a famous scientist. He has made some predictions about life on Mars.

- In the 2030s, a few people [1] _____ to Mars in special spacecraft.
- They [2] _____ on Mars for more than a few months, but they [3] _____ the first houses on Mars. Robots [4] _____ them.
- At first, people [5] _____ food that they have brought from Earth. But by 2060, they [6] _____ their own food on Mars.

3 Make more predictions about life on Mars with *will/won't.* Use the ideas in the box or your own ideas.

find / life go on / vacation to other planets have to make / oxygen
live / underground wear / space suits all the time

People will live underground on Mars, but they won't find life there!

4 Work in pairs. Imagine life in the future. Discuss the questions.

- What job will you have?
- What kind of house will you live in?
- Who will you live with?
- What will you do in your free time?
- How will you travel?

In the future, I hope I'll live in a special house under the ocean. I'll travel to work on an ocean scooter.

LESSON 3

Reading

1 You are going to read about Scott Kelly, an astronaut on the International Space Station (ISS). Before you read, write three questions for Scott about life in space.

2 Listen and read. Did you find the answers to your questions in Activity 1? TR: 52

Life in Space

What's life like on the International Space Station (ISS)? Let's spend some time with NASA astronaut Scott Kelly.

Scott wakes up early and checks his schedule on his computer. The astronauts on the ISS have a schedule for every day. Today, he's cleaning some rooms in the morning. In the afternoon, the unmanned Dragon spacecraft is arriving from Earth. It's bringing food, water, new clothes, and presents and letters from his friends and family. Scott usually wears the same clothes every day, so he's happy to get new clothes. His pants have a lot of pockets—that's important because everything **floats** in space! Then he does some exercise. The astronauts have to do about two hours of exercise every day. They don't use their **muscles** much because there is very little **gravity** on the ISS, and so they can float everywhere.

When the Dragon spacecraft arrives in the afternoon, Scott's crewmate, Samantha, uses a robot arm to **pull** the spacecraft onto the ISS. It's a long and difficult job. They aren't opening the door of the Dragon until tomorrow. It's too dangerous to open it today.

Finally, after a long day, Scott goes to sleep in his **sleeping bag**. What's he doing tomorrow? He'll find out when he reads his schedule.

New words: float muscle gravity pull sleeping bag

Astronaut Scott Kelly on the International Space Station

3 Read again. Circle the correct answer (A, B, or C).

1. What's the first thing Scott does when he gets up?
   - **A.** He gets dressed.
   - **B.** He looks at his schedule.
   - **C.** He does some exercise.
2. What is NOT in the Dragon spacecraft?
   - **A.** astronauts
   - **B.** things to eat
   - **C.** things to read
3. Why do astronauts have to exercise every day?
   - **A.** because there isn't any gravity
   - **B.** because it's very difficult to float everywhere
   - **C.** because they don't use their muscles much to move
4. Moving the Dragon spacecraft toward the ISS...
   - **A.** takes a long time, but it's pretty easy.
   - **B.** is a difficult task, but pretty quick.
   - **C.** isn't easy and it isn't quick.
5. What are Scott's plans for tomorrow?
   - **A.** He's doing the same thing as today.
   - **B.** He won't know until he looks at his schedule.
   - **C.** He's going back home.

4 Work in pairs. Imagine you are on the ISS. The Dragon spacecraft arrives with a present from your family. What did they send you?

VALUE Give and share.
Workbook, Lesson 6

LESSON 4

Grammar

1 Study the grammar box.

Present progressive for future

We use the present progressive to talk about definite plans for the future.

*The Dragon spacecraft **is arriving** from Earth this afternoon.*

*They **aren't opening** the door until tomorrow.*

A: *What **are** you **doing** this weekend?*
B: *I'm **visiting** the Hong Kong Space Museum with my cousins.*

2 Look at this ISS astronaut's schedule for tomorrow. Say what she is and isn't doing.

Astronaut #567134:
This is your schedule for Monday, April 27th.

Morning	Afternoon
Run on the running machine.✔	Clean bedroom.✘
Cycle on the bike machine. ✘	Put the garbage into special bags.✔
Make a video call with a school on Earth.✔	Go on a spacewalk.✘
Check e-mails.✔	Talk to Mission Control.✔

3 Work in pairs. Make a schedule together for the weekend. Then find out about another pair's schedule.

play tennis / soccer	go swimming
visit friends	make lunch
make a video call	take a train to...
go for a bike ride	go to the movies

	Saturday	Sunday
morning		
afternoon		
evening		

What are you doing on Saturday afternoon?

We're visiting our friends.

LESSON 5 Song

1 **Look at the picture of our solar system. Can you name the planets?**

2 **Listen and act.** TR: 53

3 **Listen and sing.** TR: 54 and 55

The Planets' Song

My name is Mercury,
I'm closest to the sun.
I'm very hot in the daytime,
my year is eighty-eight Earth days long.

Hi, I'm Venus,
you can see me in the sky.
They call me the morning star
because I'm so hot and bright.

I'm your favorite planet,
I'm Earth, I'm the best!
I have oxygen and water,
so much better than the rest!

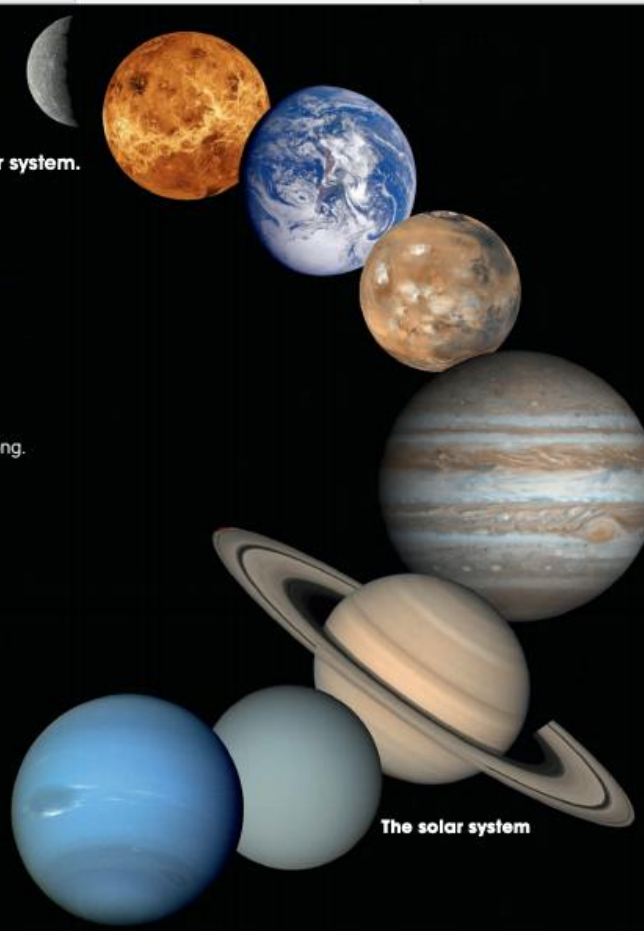
I'm the red planet.
Yes, Mars is my name.
I'm sort of cold and icy.
Will you live on me one day?

Hello, I'm Jupiter,
I'm the biggest planet here.
I have more than sixty moons
and a stormy atmosphere.

I'm called Saturn,
I'm beautiful and bright.
I have rings of ice around me,
you can just see me at night.

I'm Uranus, the icy planet,
there are seventeen hours in my day.
You need a telescope to see me
because I'm so far away.

Neptune is my name,
and like Uranus, I'm blue.
I'm the furthest from the sun
so I'm cold and I'm icy, too.



The solar system

GLOSSARY
oxygen We need this to breathe.
stormy with strong winds and rain or thunder
atmosphere the gases around a planet
telescope

Writing An Informational Text LESSON 6

1 **Read the text. What's the most interesting fact?**

Mercury

Mercury is the closest planet to the sun. Because it is so close to the sun, it gets very hot during the day: about 450°C. But at night, it gets very cold: about -180°C. It's also the smallest planet in the solar system—Earth is eighteen times bigger than Mercury!

It's difficult for us to see Mercury. This is because it is close to the sun and the light from the sun is very bright. However, sometimes you can see it in the early morning or in the late evening.

Time on Mercury is different from time on Earth. One day on Mercury is the same as fifty-nine days on Earth. A year on Mercury is only eighty-eight days long.

Mercury looks like the moon. It's gray, it has a lot of rocks, and there is no atmosphere. Most scientists think that life on Mercury is impossible.

Mercury is the closest planet to the sun.

2 **Read the information in the box. Then match captions A–C with photos 1–3.**

Informational texts often include photos with captions. A caption is usually one short sentence with information about the photo.

A. Jupiter has more than sixty moons. ___
B. Mars is often called the "red planet." ___
C. Saturn has rings of ice around it. ___

3 **Writing Skill** Checking information

a. **Read the information in the box.**

When we write an informational text, we need to make sure that all the information is correct. If the information is from a website, check these questions.

1. What is the date of the article/website?
2. What is the address of the website?
3. Can you find the same information on different websites?

b. **Match questions 1–3 in the box with reasons A–C.**

A. If you can find the information on one website only, it may possibly be wrong. ___
B. If it's a personal blog, the writer perhaps hasn't checked all the facts. Use official websites, such as museum or newspaper ones. ___
C. Information that is old may have changed. ___

4 **Write an informational text about the planet Venus. Include a photo with a caption. Make sure that you check all the information carefully.**

LESSON 7

Video

1 **The photo shows the Curiosity rover. It landed on Mars in 2012 and is still there. Work in pairs. Do you know the answers to these questions?**

1. Why is the Curiosity rover on Mars?
2. What does it do on Mars?
3. Who built it?

Kobie Boykins is a National Geographic Explorer and a mechanical engineer for NASA.

2 **Watch the video. Then check (✓) the things you see.** Video 9

☐ space	☐ the ISS	☐ the moon
☐ Earth	☐ the ocean	☐ Mars
☐ an astronaut	☐ the Curiosity rover	☐ a rocket

3 **Watch the video again. Circle the correct answer (A or B).** Video 9

1. The spacecraft that go to Mars travel at a speed of ___.
   A. 21,000 kilometers per hour **B.** 560 million kilometers per hour
2. The first Mars rover traveled to Mars in ___.
   A. 1987 **B.** 1997
3. Kobie's team is trying to build a machine that can make ___.
   A. carbon dioxide **B.** oxygen
4. The next Mars rover will take off in ___.
   A. 2020 **B.** 2030

4 **Work in pairs. Discuss the questions.**

1. Do you want to do Kobie Boykins' job? Why? / Why not?
2. Do you think it's more important to explore space or to explore our own planet?