

Life on other planets

VOCABULARY

Solar system | Space travel |
UFOs | Science fiction films |

GRAMMAR

Articles: *a, an, the*, zero article
Prepositions after adjectives

9.1

VOCABULARY Solar system

I can talk about the solar system.

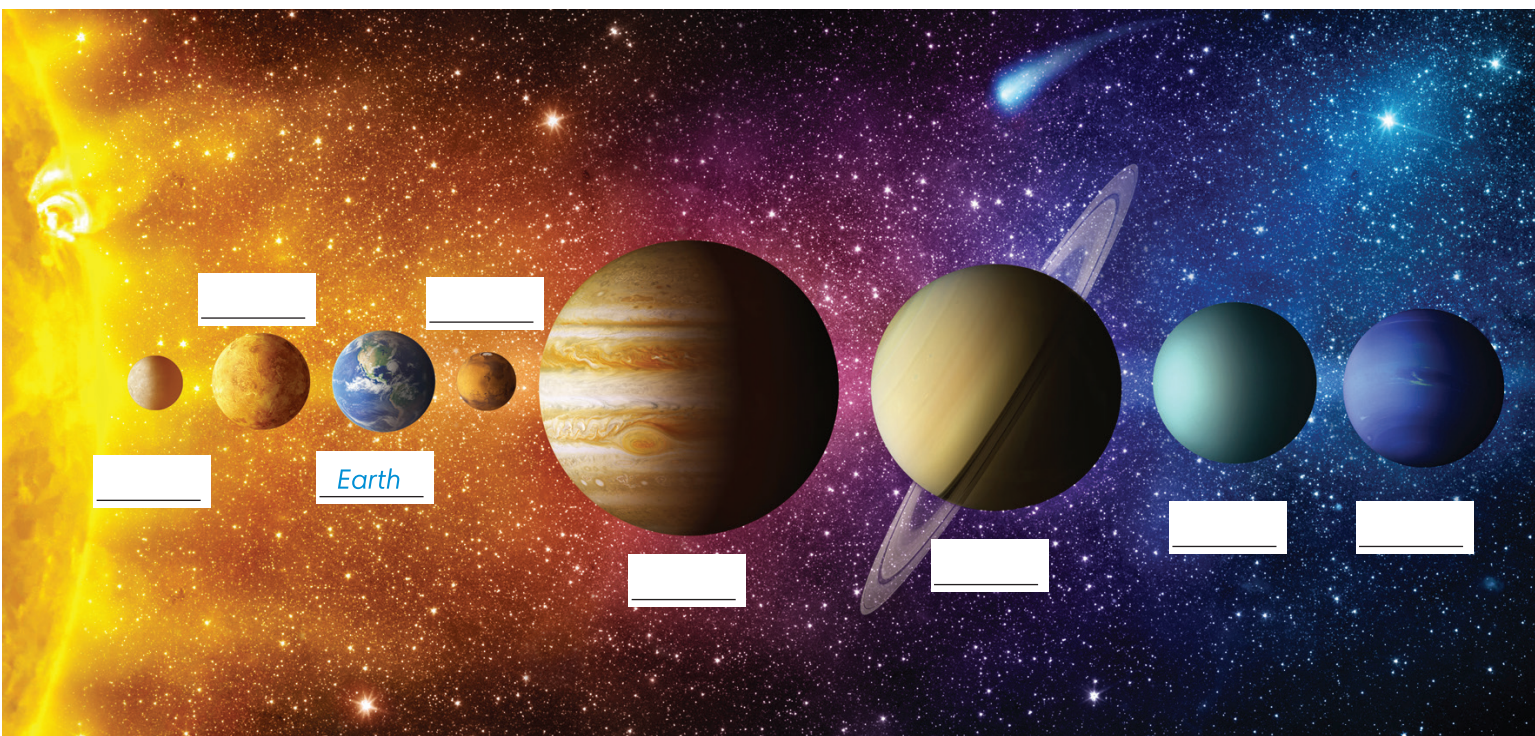
- 1 Look at the picture. What do you know about life on other planets in our solar system?
- 2 Write the names of the planets under each picture on page 91.
- 3 Fill in the blanks with the names of the planets. Not all of them will be used.

Vocabulary

Planets in the solar system

Earth Mercury Mars Venus Jupiter Saturn Uranus Neptune

We live on ¹ _____, but this is just one planet in our solar system. The planets can be put into two groups. The four planets which are closest to the Sun are called the inner planets. These include ² _____, Venus, Earth, and ³ _____. These planets are made of rock and are smaller than the other planets. The other planets are farther from the Sun so we call them the outer planets. The biggest outer planet is ⁴ _____. ⁵ _____ is also an outer planet which is known for its rings. Two other outer planets are ⁶ _____ and Uranus. Outer planets are made of gas.



4 Answer the questions about our solar system.

QUIZ

- 1 What is the coldest planet in our solar system? _____
- 2 What is the biggest planet in our solar system? _____
- 3 Which planet in our solar system is furthest from the Sun? _____
- 4 Which four planets in our solar system are the outer planets? _____
- 5 Which planet has rings of ice and dust? _____
- 6 Which is the hottest planet in our solar system? _____
- 7 Which two planets neighbor Earth? _____
- 8 Which planet in our solar system has life? _____

5 Complete the fact file about the solar system with the words given.

aliens galaxy Milky Way orbit solar system universe

Our ¹ _____ has a Sun, eight planets, and many moons. Our solar system is part of our ² _____, called the ³ _____ Galaxy. There are billions of galaxies in the ⁴ _____. Astronauts travel to space in spacecraft. These spacecraft ⁵ _____ the Earth or other planets. For thousands of years, man has wondered about life on other planets. We haven't found any yet, but we call creatures from other planets ⁶ _____.

6 Work in groups. Make a poster of our solar system and tell the class what you know about it.



9.2

GRAMMAR Articles: *a / an / the / zero article*

Articles: *a / an / the / zero article*

- 1**  **9.01** Look at the image. Listen to a dialogue between Linda and Duy and answer the questions.



- 1 What planet are they talking about?
- 2 What is special about the planet?

- 2** Read the Grammar box. Answer the questions.

Grammar *a, an, the, zero article*

- We use **a** and **an** before nouns when we are not referring to any specific one.
A planet is a large object that orbits **a** star.
- We use **the** before nouns when we refer to a specific one, but we don't use it for names.
The fourth planet from **the** Sun is Mars.
- We use the *zero article* (which is no article) before some specific nouns, such as names (John), planets (Jupiter), places (Hong Kong), streets (Oxford Street), languages (German), school subjects (history), and times (Sunday, winter, October).
Mars is covered with a mineral water called iron oxide.

- 1 What type of article is used before Mars and Earth in the above example sentences?
- 2 Why is *an* used in front of the phrase "an old planet"?

- 3** Choose the best option to complete the sentences.

- 1 Scientists have not yet discovered _____ single alien on Mars.
a the b zero article c a d an
- 2 _____ Saturn is larger than our Earth.
a The b zero article c A d An
- 3 _____ universe includes the Milky Way Galaxy and all other galaxies together.
a The b zero article c A d An
- 4 Mercury and Venus, like the other planets of our solar system, orbit _____ Sun.
a the b zero article c a d an
- 5 Jupiter has rings, but many people don't realize that, and so does _____ Uranus.
a the b zero article c a d an
- 6 I wanted to be _____ astronaut, so I was into astronomy.
a the b zero article c a d an

- 4** Fill in each sentence with *a, an, the*, or *zero article*.

- 1 I can see _____ Moon from my home on _____ clear night.
- 2 How long does it take _____ Neptune to orbit _____ Sun?
- 3 _____ Little Dipper is the easiest constellation to see in _____ Milky Way.
- 4 I saw _____ science fiction movie last night about _____ alien from Mercury.
- 5 Did you know you could see _____ Venus without _____ telescope?

- 5** **ROLE-PLAY** Work in pairs. Imagine Student A is a citizen from Earth. Student B is an alien from Mars. Student A asks Student B using the list of questions below. Student B looks at the fact file on page 102.

- 1 What is the diameter of Mars?
- 2 How long is a day on Mars?
- 3 How long is a year on Mars?
- 4 What is the gravity on Mars?
- 5 What does the atmosphere on Mars consist of?
- 6 What is the temperature on Mars?
- 7 How many moons are there on Mars?

A: *What is the diameter of Mars?*
B: *It has a diameter of nearly 6,800 km.*

**And
YOU**

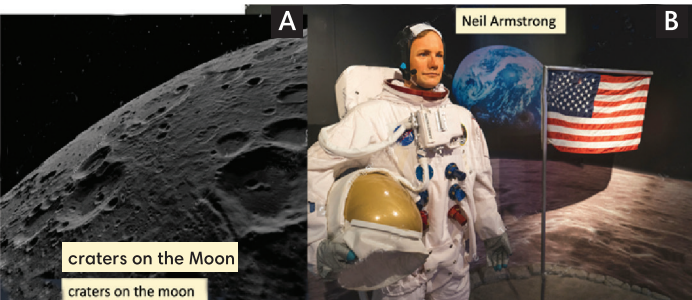


9.3

READING and VOCABULARY

I can identify specific information in a report about life on the Moon and guess the meanings of new words in context.

- 1 In pairs, look at the photos. What do you know about the Moon and the first person on the Moon?



- 2 Read the text. Complete the table with **ONE WORD** or a **NUMBER**

Date astronauts returned to Earth: ¹ _____

July 1969

Names of astronauts: Neil ² _____,

Edwin Aldrin, Michael Collins

Moon's colour: light ³ _____

Number of days to orbit the Earth: ⁴ _____
days

Hours spent on the Moon: ⁵ _____

Flag planted on the Moon: ⁶ _____

9.02

The first man on the Moon was Neil Armstrong. He flew on the Apollo 11 mission to the Moon in July 1969. The rocket had three astronauts: Neil Armstrong, Edwin Aldrin, and Michael Collins.

Four days after leaving Earth, Armstrong and Aldrin landed on the Moon in the Lunar Module. As they did this, Collins stayed in the spaceship where he orbited the Moon, did science experiments, and took pictures.

The Moon is made of rock and dust. It is light gray, and its surface has holes called craters. The Moon doesn't have life on it. It orbits the Earth and takes 27 days to do this. The Moon is smaller than the Earth.

Armstrong was the first man to walk on the Moon. He and Aldrin walked on the Moon for three hours, gathered rocks to take back to Earth. The astronauts left a sign on the Moon. It said they came in peace for all humans from all countries on Earth. They also put the US flag on the Moon.

On 24 July 1969, all three astronauts returned safely to Earth.

- 3 Read the text again and use the context clues to find the words from the text to complete the chart below.

Words	Context clues	Meaning
1 Lunar Module	landed on the Moon in the	Small spacecraft that travels between the Moon and a larger spacecraft in space
2 _____	where he orbited	A spacecraft
3 _____	has holes	A round hole in the ground
4 _____	to take back to	To get things from different places and take someplace else
5 _____	It said they came in peace	A piece of paper, metal or wood that gives information
6 _____	from all countries on Earth	People

- 4 Imagine if you were an astronaut and had a chance to go into space. What would you do first when landing on another planet?



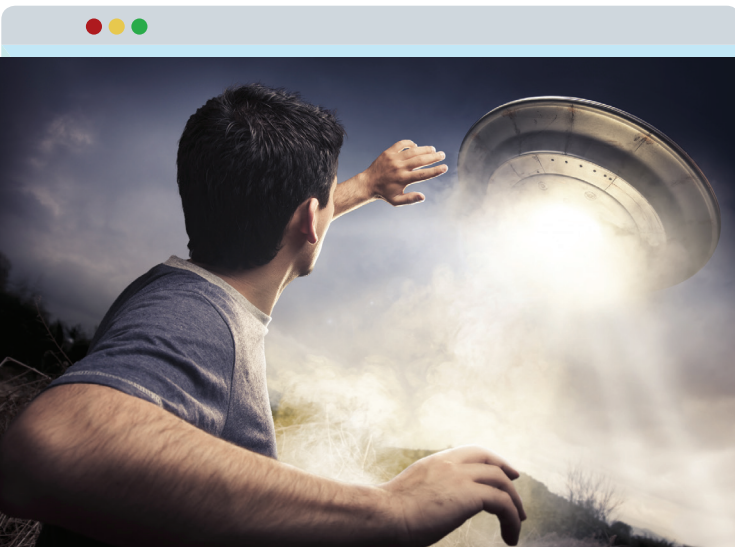


9.4

GRAMMAR

Prepositions after adjectives

- 1** Read the dialogue. What is a UFO? What do you think Minh saw?



Minh: I was with my uncle in the countryside, and we saw a UFO. I'm really excited about it.

Lewis: Oh, let me guess. You saw little green men too.

Minh: No, seriously. I'm afraid of telling anyone because no one will believe me.

Lewis: OK. What exactly did it look like?

Minh: Well, it looked like a bright light. It was similar to the lights from car.

Lewis: It sounds to me like you're getting worried about nothing. I think it was a ...

- 2** Read the Grammar box and underline the adjectives + prepositions in the text. Can you add another adjective to each list in the Grammar box?

Grammar Prepositions after adjectives

Prepositions commonly follow adjectives. The most common prepositions that follow adjectives are: *about, at, by, for, from, in, of, to, and with*

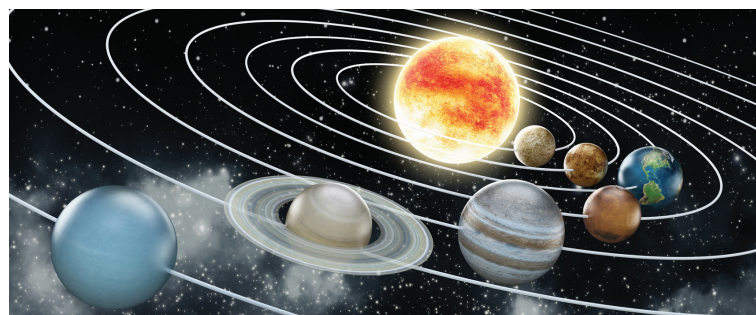
- Adjectives + of (*scared of, thoughtful of, proud of, tired of, _____*)
- Adjectives + to (*accustomed to, similar to, devoted to, married to, _____*)
- Adjectives + about (*excited about, mad about, furious about, upset about, _____*)
- Adjectives + with (*bored with, angry with, pleased with, _____*)
- Adjectives + at (*angry at, bad at, good at, slow at, _____*)

- 3** Read the sentences. Fill in the correct preposition from the box to complete each sentence.

- I'm bored _____ just reading about planets. I want to be an astronaut and do experiments in space.
- Dr. Wilson seems serious _____ aliens. She really thinks there is life on another planet.
- We're going to the astronomy museum. We're interested _____ seeing a Lunar Module.
- I'm hopeless _____ astronomy. I don't know the difference between inner and outer planets.
- I don't know how a dwarf planet, like Pluto, is different _____ a planet like Neptune.

- 4** Read the sentences. Choose the correct adjective to complete each sentence.

- Jupiter is _____ to Saturn because they both have rings.
a different b similar c familiar
- It's _____ of you to think that the Earth will be invaded by aliens.
a aware b proud c silly
- Dr. Landers is _____ with the International Space Station. He has visited it several times.
a familiar b kind c scared
- Are you _____ about a comet hitting the Earth? It will kill all life on Earth.
a angry b similar c worried
- I'm _____ for our quiz about Jupiter. I've studied really hard.
a bored b popular c ready



- 5** Work in groups. Imagine you saw a UFO. Note down your ideas and tell another group about the UFO.

- *When did you see it?*
- *What did the UFO look like?*
- *What was it doing?*

And
Y?U



9.5

LISTENING and VOCABULARY

I can identify main points and specific information in an announcement about life on a new planet.

- 1 What do you know about NASA? Look at this picture of NASA's logo. In pairs, answer the question:

- 1 What does NASA stand for?
- 2 What does NASA do?



- 2 9.03 Listen to the introduction to NASA and tick (✓) the information you hear.

- 1 Year established ☐
- 2 Number of space missions ☐
- 3 Aliens ☐
- 4 Number of moons Saturn has ☐
- 5 Space observatories in the US ☐
- 6 Number of planets in the Milky Way Galaxy ☐
- 7 Kepler Space Telescope ☐

- 3 9.04 Listen again and answer the questions with numbers.

- 1 When was NASA established?

- 2 How many space missions has NASA made?

- 3 How many moons does Mercury have?

- 4 How many planets has NASA identified?

- 4 **WORD FRIENDS** Complete the sentences with the Word Friends.

space mission
space telescope
space shuttle
habitable planet

I hope to go on a ¹ _____
someday. I would love to visit Saturn in a
² _____. Saturn is very hot, so I
don't think I would be able to land on it,
but I could orbit it. I would like to see it
through a ³ _____. Saturn is not
a ⁴ _____, but I'm certain that
one day we will find one.



- 5 Imagine you work for NASA. Give a short talk to introduce NASA to a group of students who do not know about it. You should talk about:
- What NASA stands for
 - How NASA helps learn about the universe
 - What you do at NASA





9.6

SPEAKING

I can give an imaginary talk about life on a new planet.

1  **9.05** Listen and read the talk by Dr. Johnson about the discovery of strange planets. Tick (✓) the topics mentioned in the talk.

- 1 atmosphere
- 2 colour
- 3 distance from Earth
- 4 life on the planets
- 5 name of planets
- 6 number of moons
- 7 size

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Dr. JS: We have come to the end of my talk, so now I would like to give you an opportunity to ask me any questions you have about these strange planets.

Man: May I start?

Dr. JS: Certainly.

Man: Why is 55 Cancri E called the diamond planet?

Dr. JS: Um ..., Uh ..., you see diamonds are made of carbon. And this planet has a lot of carbon. It's also very massive so there is a lot of pressure on this carbon and this process makes diamonds.

Man: I see. Thank you very much.

Dr. JS: No problem. Are there any more questions? Yes, Miss.

Woman: You said that Planet HAT-P-7b rains rubies. That's strange. How does that work?

Dr. JS: So, you would like to know why it rains rubies on that planet?

Woman: Yes, that's correct.

Dr. JS: Well, I think, I think it is because the atmosphere is full of aluminum oxide. And rubies are made from aluminum oxide.

Woman: Oh, that explains it. Thanks.

3 Complete the sentences with the expressions given from the Speaking box.

1 When did you come home last night?

2 Why did you not finish your homework?

3 Where did you go?

4 How many moons does Saturn have?

4 Work in groups of 3-4 students. Use the template below to design your own planet.

FACTS

Name: _____

Colour: _____

Size: _____

Number of moons: _____

Distance from Earth: _____

INHABITANTS

- Aliens
- Plants
- Animals

Describe them

SURFACE

- Materials:
- Land formations

Describe them

2 Practice saying the expressions above. Draw them out so they take a long time to say.

Speaking

Expressions for buying time

Expressions:

- Er ...
- Um ...
- Uh ...
- You see
- Well
- I think

[These are often combined and drawn out to make them longer]

Techniques

- Repeat an expression above (I think, I think)
- Repeat or reword the question (So, you would like to know why it rains rubies on that planet?)
- Comment on the question (That's a good question!)

5 Give a presentation about your planet based on your notes in Exercise 4. Use expressions of buying time in your presentation.

**And
YOU**

- *Do you think we will be able to travel to your planet someday?*
- *What are the aliens on your planet like?*
- *How far away from the nearest sun is your planet?*
- *What is the weather like on your planet?*



WRITING

I can write a paragraph to describe a film about life on the other planets.

1 Work in pairs. Look at the film poster below. Answer the questions.

- Have you watched this film?
- If you have seen it, tell your friend about it.
- If you haven't seen it, guess what it is about.



This film is about a mission to Mars. There is a dust storm that is going to destroy the mission. The crew members think that one of their fellow astronauts, Mark Watney, is dead, so they leave him behind. Watney is not dead. He tries to grow food, makes soil, and does what is needed to survive on Mars. He wants to wait for other astronauts to come and rescue him. Overall, I think this is an exciting fictional film. I recommend it if you like science fiction films.

2 Read the paragraph above. Answer the following questions.

- 1 What is the title of the film?
- 2 Who is the main character?
- 3 Where does the film take place?
- 4 What happens in the film?

3 Tell your partner the name of a science fiction film you have seen. Use three of the words from the Writing box below to describe it.

Writing

Nouns and adjectives used to describe a film about space

Nouns

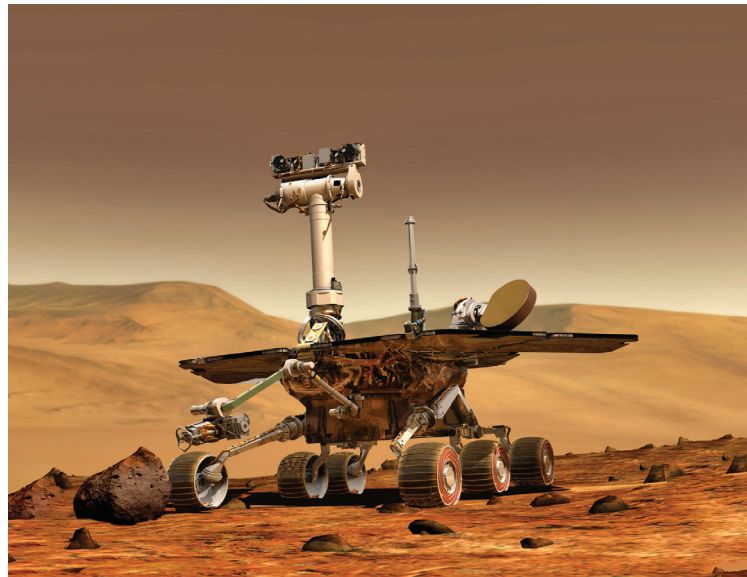
danger
excitement
fascination
imagination
fiction
enjoyment
prediction

Adjectives

dangerous
exciting
fascinating
imaginative
fictional
enjoyable
predictable

4 Complete the sentences with the words from the Writing box.

- 1 Mark was in great _____ while on Mars because he didn't have enough food.
- 2 I found the film to be very _____ because it requires us to think about what life on Mars is like.
- 3 This type of film is called science _____.
- 4 I think the most _____ part of the film is when he lost all of his plants.
- 5 This film is not _____ because we don't know how it will end.



5 **WRITING TIME** Write a paragraph (80-100 words) to describe a film about life on another planet. Include the following ideas in your description.

- title of the film
- main character(s)
- where the film takes place
- what happens in the film
- the ending of the film
- your feelings about the film

adj: adjective **adv:** adverb **n:** noun **np:** noun phrase **v:** verb **vp:** verb phrase **prep:** preposition

astronaut	/ˈæstrənɔ:t/	n	phi hành gia	Neptune	/ˈneptju:n/	n	sao Hải Vương
alien	/ˈeiliən/	n	người ngoài hành tinh	orbit	/ˈɔ:bit/	v	xoay quanh (quỹ đạo)
crater	/ˈkretə/	n	miệng núi lửa	rocket	/ˈrɒkɪt/	n	tên lửa
experiment	/ɪkˈsperəmənt/	n	cuộc thí nghiệm	Saturn	/ˈsætən/	n	sao Thổ
fascinating	/ˈfæsəneɪtɪŋ/	adj	lôi cuốn	science fiction	/ˈsaɪəns ˈfɪkʃən/	np	khoa học viễn tưởng
galaxy	/ˈgæləksi/	n	ngân hà	space mission	/speɪs ˈmɪʃən/	np	nhiệm vụ không gian
habitable planet	/ˈhæbɪtəbl ˈplænt/	np	hành tinh có thể sinh sống được	space shuttle	/speɪs ˈʃʌtl/	np	tàu con thoi
imaginative	/ɪˈmædʒɪnətɪv/	adj	giàu trí tưởng tượng	space telescope	/speɪs ˈteləskəʊp/	np	kính viễn vọng không gian
inhabitant	/ɪnˈhæbɪtənt/	n	dân cư	spacecraft	/ˈspeɪskra:ft/	n	phi thuyền
Jupiter	/ˈdʒu:pɪtə/	n	sao Mộc	UFO	/ˈju:foʊ/	n	đĩa bay (vật thể không xác định)
land	/lənd/	v	đặt chân	Uranus	/ˈjʊərənəs/	n	sao Thiên Vương
Mars	/mɑ:z/	n	sao Hoả	Venus	/ˈvi:nəs/	n	sao Kim
Mercury	/ˈmɜ:kjəri/	n	sao Thủy				
Milky Way	/ˌmɪlki ˈweɪ/	np	dải Ngân Hà				

VOCABULARY IN ACTION

1 Choose the odd one out.

- 1 UFO | space shuttle | Venus | rocket
- 2 well ... | um ... | space mission | er ...
- 3 Neptune | Uranus | Saturn | solar system
- 4 science fiction | exciting | dangerous | fascinating
- 5 astronaut | land | space mission | experiment

2 Choose the correct answer in brackets to complete the text.

NASA's latest space (¹ mission / shuttle) is to launch another space (² mission / shuttle). This time it will travel to Mars. It will use a giant space (³ Lunar Module / telescope) to take pictures of the surface of Mars. Scientists want to know if Mars could be a (⁴ dangerous / habitable) planet. If it is, then maybe someday we could live on Mars. But if they find aliens, then it could make an exciting (⁵ space / science) fiction film.

3 Use the glossary to find:

- 1 the name of the largest planet in our solar system
- 2 an instrument used to look at planets and stars
- 3 a type of film
- 4 a mode of transport similar to a rocket
- 5 something which scientists cannot explain

PRONUNCIATION Intonation in exclamatory sentences.

Exclamatory sentences in English have a falling intonation. ↘

4 9.06 Listen and repeat.

- 1 Look at this photo. How beautiful the Milky Way is!
- 2 What a beautiful telescope!

5 9.07 Listen to the sentences and mark the stress, using ↘.

- 1 What a beautiful picture of the Moon it is!
- 2 How thoughtful of you to come!
- 3 What an interesting museum! I'd love to go back.
- 4 How fascinating!

6 Work in pairs. Imagine you meet an alien getting out of a UFO. Make exclamatory sentences about him or her.

Revision

VOCABULARY

- 1** Look and write the words under each picture.



- 2** In pairs, discuss how the words below are similar, different, or related.

- 1 habitable planet / Earth
- 2 er / uh
- 3 I think / you see
- 4 imaginative / fascinating
- 5 rocket / space shuttle
- 6 Uranus / Venus

- 3** Match the words from Column 1 with the words from Column 2 to make phrases.

Column 1

- 1 habitable
- 2 I
- 3 science
- 4 space
- 5 space
- 6 space
- 7 you

Column 2

- mission
- think
- planet
- see
- fiction
- shuttle
- telescope

GRAMMAR

- 4** Fill in the blanks with *a*, *an*, *the*, or zero article.

- 1 The astronauts went on _____ dangerous space mission to Venus.
- 2 The main character in the science fiction film is _____ astronaut.
- 3 Scientists explained that the UFO was actually _____ bright star.
- 4 A rocket transported the space telescope to _____ International Space Station.
- 5 Saturn has more moons than _____ Jupiter does.

- 5** Fill in the blanks using the correct prepositions to complete the sentences.

- 1 I'm afraid _____ travelling into space. It seems very dangerous.
- 2 We are excited _____ meeting the astronaut who will visit our town next month.
- 3 I am pleased _____ the science experiment you did about Neptune.
- 4 Jupiter is similar _____ Saturn because they are both large planets made of gas.
- 5 I saw a UFO, so I'm worried _____ aliens attacking the Earth.

WRITING

- 6** Write a paragraph (80-100 words) to describe a movie about space. You can include the following ideas:

- Where did the movie take place?
- What was the problem?
- How was the problem solved?
- What did you think of the movie?
- Would you recommend it? Why / Why not?