

UNIT

1

SCIENCE FICTION

Today's science fiction is tomorrow's science fact.

—Isaac Asimov

In this unit, you will

- 1 read famous science fiction.
- 2 hear and talk about robots and artificial intelligence.
- 3 write a sci-fi short story.
- 4 explore the relationship between science and science fiction.

Look and discuss

- 1 What do you see in the picture? What things does this picture remind you of?
- 2 Have you read any science fiction? What elements does science fiction usually include?

Explore the relationship between humans and robots

1 How do robots already help humans in their lives today? What do you think a domestic robot could do for a family in the future?

2 Read the story below, which was originally written by famous science fiction writer Isaac Asimov. Take notes on who these people are and their relationships to each other.

- ☐ Larry Belmont ☐ Claire
☐ Tony ☐ Gladys Claffern

SATISFACTION GUARANTEED (Adapted)



Larry Belmont worked for a company that made robots. Recently it had begun experimenting with a household robot. It was going to be tested out by Larry's wife, Claire.

Claire didn't want the robot in her house, especially as her husband would be away on a business trip for three weeks, but Larry persuaded her that the robot wouldn't harm her or allow her to be harmed. It would be a **bonus**. However, when she first saw the robot, she felt alarmed. His name was Tony. He seemed more like a human than a machine. He was tall and handsome with smooth hair and a deep voice, although his facial expression never changed.

On the second morning, Tony brought her breakfast and then asked her whether she needed help dressing. She felt embarrassed and quickly told him to go. Now she was being looked after by a robot that looked so human, and it was disturbing.

One day, Claire mentioned that she didn't think she was clever. Tony said that she must feel very unhappy to say that. Claire thought it was ridiculous that she was being offered sympathy by a robot, but she gradually admired his wisdom and **integrity** and began to trust him. He always treated her with **dignity**. She told him how she was

unhappy that her home wasn't elegant enough for Larry, who wanted to improve his social position with a bigger **salary**. She wasn't like Gladys Claffern, one of the richest and most powerful women around.

As a favour, Tony promised to help Claire make herself more beautiful and her home more elegant. So Claire borrowed some library books for him to read, or rather, scan. She looked at his fingers with wonder as they turned each page. How absurd, she thought. He was just a machine.

Tony gave Claire a new hairstyle and improved her makeup. As he was not allowed to accompany her to the shops, he wrote out a list of things that he would need for his work on the house. Claire went downtown and bought these things. She had an **appointment** to paint her **nails**, then she went into an expensive clothes shop. The **saleswoman** there was rude to her, so she rang Tony and told him she was being treated badly. He spoke to the woman, who immediately changed her attitude. Claire thanked Tony, telling him that he was a "dear". As she turned around, there stood Gladys Claffern. How awful to be discovered by her, Claire thought. By the look on her face, Claire knew that Gladys thought they were in a relationship. After all, she knew Claire's husband's name was Larry, not Tony. Although it was completely innocent, Claire felt **guilty**.



Compare and contrast

Some words and phrases are often used to compare and contrast information. It is easier to understand two separate things by describing their similarities and differences.

When Claire got home, she wept. Gladys was everything Claire wished to be. Tony told her she was being sensitive and was just as good as Gladys. He suggested that she invite Gladys and her friends to the house the night before he was to leave and Larry was to return. By that time, Tony expected that the house, which was being completely transformed, would be ready.

Tony worked steadily on the improvements. Claire tried to help by working on a light **suspended** from the ceiling, but she fell off the ladder. Even though Tony had been in

the next room, he managed to catch her in time. As he held her, she felt the warmth of his body. She screamed, pushed him away, and ran to her room.

The night of the party arrived. The clock struck eight. The guests would be arriving soon, so Claire **dismissed** Tony for the rest of the night. At that moment, Tony took her in his arms, bringing his face close to hers. She heard him **declare** that he did not want to leave her the next day, and that he felt more than just the desire to please her. Then the front door bell rang.

- 3 How do you think this story will end? Work in groups and come up with an ending. Then listen to the rest of the story. How different is it from your ending?
- 4 Claire's feelings towards Tony changed as the story developed. Review the story, and then complete the chart.

Occasion	Claire ...	Occasion	Claire ...
1 before he arrived	disliked him	5	called him a dear
2	was alarmed	6	felt his warmth
3	felt embarrassed	7	felt being envied
4	admired him	8	cried all night

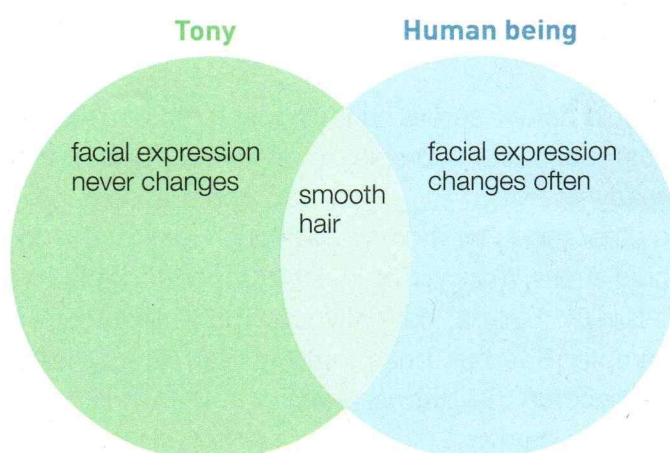
- 5 Complete the diagram with the similarities and differences between Tony and a human being. Then use the words in the boxes to describe the similarities and differences.

Comparison

the same as similar to
similarly more like
just as in comparison
in the same way

Contrast

different from but
while whereas
although however
on the other hand
in contrast



EXAMPLE

A human being's facial expression changes often, whereas Tony's never changes.

- 6 Discuss the questions in pairs.
- 1 Do you think it is possible for a person to love a robot? Why?
 - 2 What relationship do you think will develop between humans and robots in the future?

Build up your vocabulary

1 Replace the underlined parts with words of similar meanings from the text. Rewrite the sentences if necessary.

- 1 We believe he is a man of absolute honesty, and trust his words completely.
- 2 Henry told me that he was in a hurry as he had arranged to see the dentist at 10:00 a.m.
- 3 Rumours are like sharp knives, cutting one's self-respect into pieces. We should be aware of this and not spread unkind news around.
- 4 Because of the holiday, the students were allowed to go home early.
- 5 Whoever is charged with a crime should be presumed innocent until proven otherwise.

2 Match each word with the proper definition below.

- | | |
|-----------|---|
| 1 income | A money that someone is paid regularly, usually monthly, by the organisation he or she is working for |
| 2 fee | B money given for work done, goods received, etc. |
| 3 fare | C money paid for work or services, typically on a daily or weekly basis |
| 4 payment | D extra amount of money added to somebody's wages as a reward for hard work or good performance |
| 5 salary | E money received from work, investments and so on |
| 6 bonus | F money paid to a professional person or organisation for advice or services |
| 7 saving | G money paid for a journey on public transport, such as the bus, train, or taxi |
| 8 wage | H money saved for a special purpose |

3 Complete the passage using the correct forms of the words in the box. Then in pairs share your opinion on AI development.

fascinating test out dismiss science fiction more like dignity intelligent

It would not be surprising if we found it difficult to distinguish between reality and _____ in the future. For example, robots first appeared in sci-fi novels, but now robot soldiers have already been _____ in war. Robot experts have also built robots that can see, talk, and do other things like humans. Although a robot that looks _____ a human than a machine could make many people a bit uncomfortable, we have to admit that it is a _____ possibility. Sophia, currently said to be the most advanced AI robot in the world, is a great example. She has been interviewed many times, appeared on the covers of magazines, and become the first non-human in the world to be given citizenship by a country. When it comes to games, 2017 became a year in which AI defeated humans in so many games that AI researchers say that it will not be long before AI can win at almost everything. So have we lost the _____ of being the most intelligent creature? Maybe in the future, as AI becomes even more _____, it will become a major threat to humans. However, some people _____ this fear. They believe if AI can handle tasks like **calculating** and driving for us, we will have more time for creating, thinking, and "being human".

Review useful structures

- 1 Scan the reading text and underline all the verbs in the passive voice. Then discuss with a partner why the passive voice is used.
- 2 Complete the sentences with appropriate forms of the verbs in brackets. Then try to translate these sentences into Chinese.

- 1 What is done cannot _____. (undo)
- 2 Janet _____ **chairwoman** of the student union last month. (elect)
- 3 Two hundred **grammes** of **flour** should _____ to the cake mix. (add)
- 4 A 3,000-seat **venue** _____ for the circus performance in November. (build)
- 5 Working efficiency _____ since this new software was adopted. (improve)
- 6 Only one piece of carry-on luggage _____ for each economy class passenger. (allow)
- 7 It is a great honour for me to _____ to address this international AI conference. (invite)
- 8 When I entered the room, I found that the **salesman's** salary _____ at the meeting. (discuss)
- 9 With exams being adapted into Braille, a blind senior high school student scored 630 points out of 650 in the College Entrance Examination. He is expected to _____ to a top university. (admit)

- 3 Read the introduction to a science fiction novel and complete the passage using the correct forms of the words in the box.

explore	translate	discover	regard	represent
set up	recruit	write	get caught up	connect

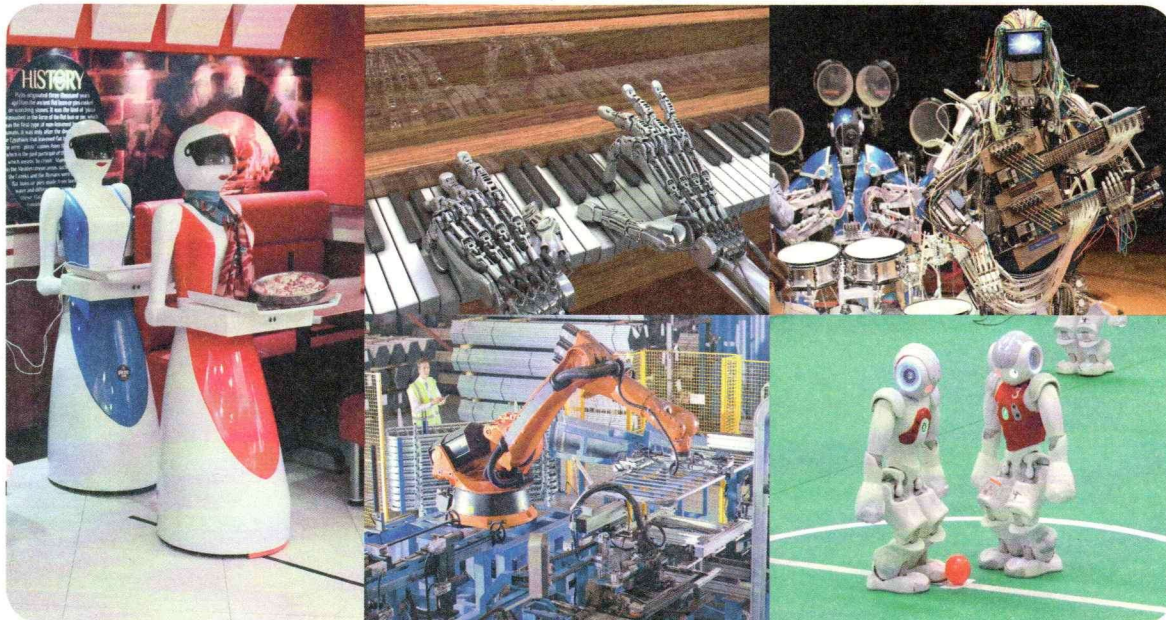
Science fiction _____ by many people as a mirror through which our future can be freely imagined and _____. *The Three-Body Problem*, _____ by Chinese writer Liu Cixin, is one of those astonishing predictions about the future. The work was first published in a Chinese sci-fi magazine in 2006 and printed as a three-volume book in 2008. When the first volume _____ into English by Chinese-American author Ken Liu, it attracted attention around the world, becoming the first Asian winner of the Hugo Award for Best Novel. The book _____ many themes such as space exploration, alien contact, AI, and the future of humans.

The Three-Body Problem begins with the stories of two unrelated people, Ye Wenjie and Wang Miao. Ye _____ to join a secret project in a remote area of China, which _____ to contact alien life forms. In the other story, set 20 years later, Wang Miao _____ in a popular online game called "Three Body", in which people live on an unknown planet with three suns. But Wang discovers it is more than a game—it uncovers a great danger threatening human existence. How are these two people's stories _____? And how will their behaviour change Earth's future and the civilisations of other planets? Answers to all these questions are waiting to _____ when you go on reading.

Voice your opinions on robots and AI

1 Look at the pictures and discuss the questions in pairs.

- 1 What jobs are these robots doing? What are the pros and cons of robots doing these jobs?
- 2 What kinds of robots or AI developments do you hope for?



2 Listen to an interview and put these statements in the correct order.

- 1 The host introduces the guest, a sci-fi expert.
- ___ The expert has robots in his home.
- ___ As robots become more intelligent, they may also become more dangerous.
- ___ The host mentions Asimov's Three Laws of Robotics.
- ___ The expert says robots will have occupations such as teaching and nursing.
- ___ The line between humans and robots will be more blurred in the future.
- ___ The host asks about benefits and problems.
- ___ The host asks if there are robots in the expert's home.
- ___ In sci-fi stories, robots often become **superior** and take over.

3 Listen to the interview again and write down the discourse markers that you hear. Make a note of how each discourse marker is used in the interview. Then compare your answers with a partner.



Listen for discourse markers

Discourse markers are used to organise a text by marking sequence, contrast, opinion, purpose, and so on. Listening for discourse markers can help you understand a text more easily. For example, *first*, *however*, *above all*, *in order to*, etc.

- 4 In groups, discuss what the expert thinks of the questions and exchange your own views. You may use the following expressions to help you.

Changing the topic

Oh, by the way, ...

Oh, I remember, ...

I nearly forgot! ...

What I meant to tell/ask you is ...

..., but (perhaps) that's beside the point.

That reminds me of ...

The next item on the agenda is ...

I think we ought to move on to ...

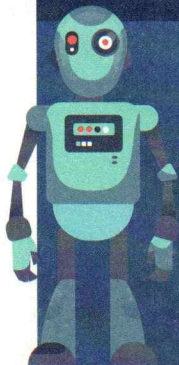
On the one hand ... On the other hand ...

Oh, there was something I meant to tell you.

Could I change the subject?

- 1 What do you know about robot technology? What can robots do?
- 2 What benefits do you think robots or AI will bring? Do you think they will cause problems as well?
- 3 Do you know anything about Isaac Asimov and his famous Three Laws of Robotics? What do you think of these laws?

• **THREE LAWS OF ROBOTICS** •



LAW 1

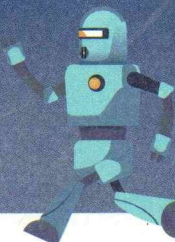

A ROBOT MAY NOT INJURE A HUMAN BEING, OR, THROUGH INACTION, ALLOW A HUMAN BEING TO COME TO HARM.

LAW 2

A ROBOT MUST OBEY THE ORDERS GIVEN IT BY HUMAN BEINGS EXCEPT WHERE SUCH ORDERS WOULD CONFLICT WITH THE FIRST LAW.

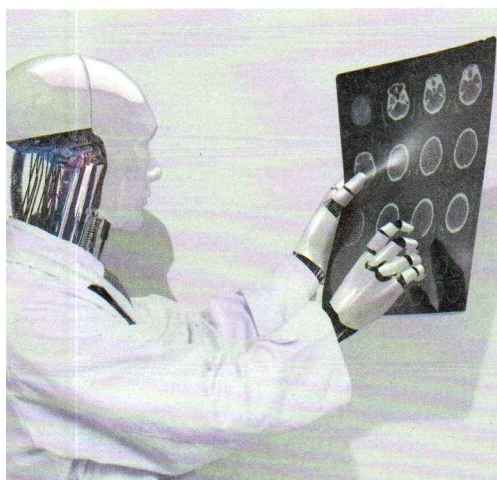
LAW 3

A ROBOT MUST PROTECT ITS OWN EXISTENCE AS LONG AS SUCH PROTECTION DOES NOT CONFLICT WITH THE FIRST OR SECOND LAW.




EXAMPLE

- A: Oh, by the way, I saw a programme about robot doctors last night. It was very interesting. Do you think robots will do more of these important jobs in the future?
- B: Certainly. They will probably do most of our **labour** for us.
- C: Maybe, but that's beside the point. In my opinion, robots are dangerous! They are much stronger than we are and may be superior to us in the future.
- ...



Write a sci-fi short story

- 1 In groups, discuss what you would do if you could time travel.
- 2  *The Time Machine* was written in 1895 by famous science fiction writer H.G. Wells. Read an extract from this story, and find out how many times the Time Traveller started the machine.

THE TIME MACHINE (Adapted)

It was at ten o'clock today that the first of all Time Machines began its career. I gave it a last check, and sat myself in the **leather** seat. I pushed the starting lever on the main **panel** forwards an **inch** then immediately **backwards** again. Looking around, I saw my laboratory exactly as before. Had anything happened? I thought my mind had tricked me. Then I saw the clock. A moment before, it was a minute or so past ten; now it was nearly half past three!

I drew a breath, gripped the lever and pushed it forwards. The laboratory went hazy around me. My **niece** came in to **fetch** something, maybe her **handkerchief**, apparently without seeing me. It probably took her a minute, but to me she moved like a rocket! I pushed the lever further. Night came as if a **lamp** was being turned out, and in another moment came the day. Tomorrow night came, then skipped to day, again and again, faster and faster still.

It is hard to explain the strange and unpleasant feeling of time travelling. It felt like I was being driven fast on a winding road. As my **pace** grew faster, the walls of the laboratory fell away, and I was left in the open air. The sun and moon looked as if they were being thrown across the sky, but soon there was **division** between night and day. Around me I saw trees growing like puffs of smoke; they grew, spread, and died in moments. I saw

huge buildings rise up, then disappear like in a dream. The whole surface of the earth was being changed, melting and flowing before my eyes. I calculated that I was being pushed through time at hundreds of years a minute.

I had a strong **urge** to look at the **random** things that were being flashed before my eyes! I had thought about the risk of stopping



the Time Machine many times. So long as I travelled at **maximum** speed, it didn't matter. But if I stopped and the same space was being occupied by something else, we would be forced together and **explode** like a bomb! Like an impatient fool, I pulled the lever backwards hard. With a sudden jolt, the Time Machine was flipped on its side, and I was thrown through the air.

I was stunned for a moment, and then heard the sound of thunder. I was sitting in the rain in some **mud** next to the machine. "A fine welcome," I said, "for a man who has travelled thousands of years to be here!"

3 Read the text again and answer the questions.

- 1 How does the Time Traveller first know he has travelled through time?
- 2 How does the Time Traveller feel when travelling through time? What rhetorical devices does the writer use to describe his feelings?
- 3 Why is the Time Traveller worried about stopping the machine?
- 4 Where does the Time Machine arrive when the man finally stops it?

4 Work in groups. Discuss what might happen next in the story. Use the following questions to help you and make brief notes. Then present your story to the class.

- What date do you think it is when the Time Traveller finally stops?
- What do you think is different about that time from the time he left?
- Who or what do you think the Time Traveller will meet?
- What adventures do you think he will have in the future?
- Do you think he will ever return to his own time?

5 Imagine and write your own story about a time machine you will invent, and your journey through time. Use the story and the guide below to help you.

- 1 Think about what your machine will look like. Is it a vehicle or a machine?
- 2 How does your time machine work? What do you have to do to make it work?
- 3 What period in time do you want to travel to? Think about interesting things and people you would like to see there.
- 4 Imagine what it might feel like to travel through time. Think of words to describe this and make your story as vivid as possible.
- 5 Include rhetorical devices in your story, like metaphors, similes, overstatements, etc.

6 Exchange your draft with a partner and revise the draft using your partner's comments.

7 Share your story with the rest of the class.



Assessing Your Progress

- 1 Complete the following sentences using the correct forms of the words in the box.

fetch superior to calculate have an urge to
suspend dismiss explode pace

- 1 Batteries are not allowed by airlines in checked luggage, as they might _____ due to overheating.
- 2 The new generation of smartphones is greatly _____ older version.
- 3 Since I don't have much time, I need to _____ how long it will take me to do the task.
- 4 Ordered by its master, the AI dog _____ the book from the bookshelf.
- 5 I was so pleased to hear the bell ring and our teacher announce, "Class is _____."
- 6 The company has to _____ the space exploration project due to financial problems.
- 7 City people are experiencing increasing psychological pressure as a result of a faster _____ of life and rising competition.
- 8 At one time or another, each of us probably _____ break the routine of daily life and try something new.

- 2 Read and complete the following sentences with appropriate forms of the words in brackets. Then think about why the passive voice is used in these sentences.

- 1 Mobile phones must _____ during the concert. (switch off)
- 2 When I came here at this time last year, the conference hall _____. (build)
- 3 Topics like life in the future, AI development, and aliens _____ in sci-fi. (often found)
- 4 Do you know which country _____ by Italy, Austria, Germany, and France? (border)
- 5 Continuous research _____ on smart schools, smart homes, and smart cities. (conduct)
- 6 It should _____ that the result of your examinations will not _____. (note; publicise)
- 7 It _____ that more species will become extinct if we continue to destroy the ecosystem. (assume)
- 8 All members of the audience should _____ smartly, and the wearing of slippers _____ in the concert hall. (dress; not allow)

REFLECTING

- ⊙ What interesting things about science fiction did you learn in this unit?
- ⊙ What new vocabulary and structures did you learn in this unit? How well can you use them?
- ⊙ Do you think comparing and contrasting, and listening for discourse markers were useful strategies for you to understand the texts?
- ⊙ What problems did you have with this unit? How did you solve them?
- ⊙ Overall, I thought this unit was ☐ inspiring ☐ useful ☐ so-so ☐ difficult.

* Project: Design a robot or an AI device

- 1 In groups, do some research about robots or AI devices in sci-fi films and novels, and write a list of as many robot characters or AI devices as you can think of. Use the Internet to help you.

the *Star Wars* movies

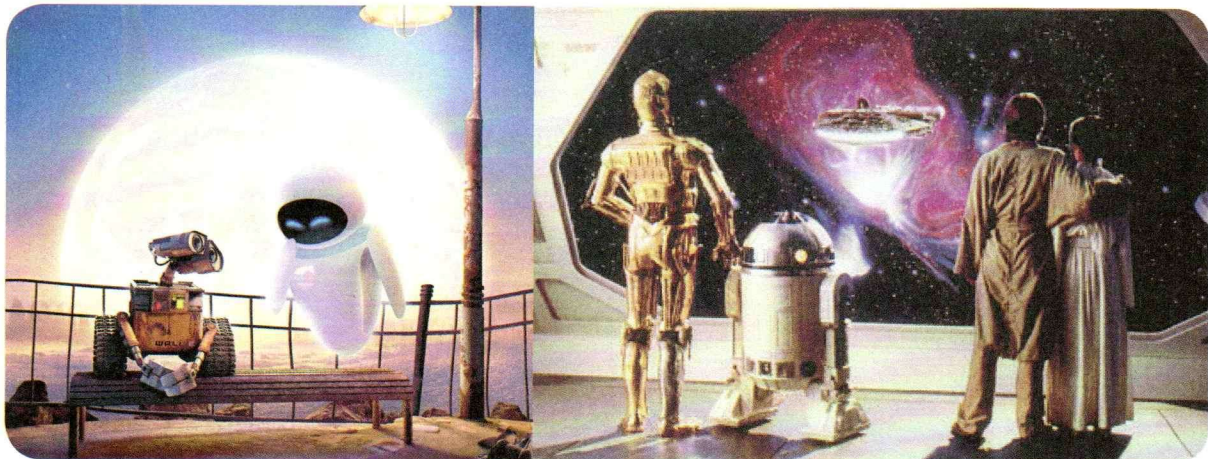
Wall-E

Big Hero Six

the *Transformers* movies

Pacific Rim

the *Foundation* Series



- 2 Make a table like the one below and fill in the parts for different robot characters and AI devices on your list.

Movie/Novel	Name	Characteristic	Function/ Ability	Unique quality
<i>Star Wars</i>	R2-D2	Brave, funny, mischievous	Co-pilot, hack computers	He speaks in beeps and whistles

- 3 Create your own robot character or AI device. Consider the following questions and make notes.

- 1 What is your robot or AI device called? Why?
- 2 What does it look like? Why?
- 3 What can your robot or AI device do? Why and how?
- 4 Does it have a personality or specific function? If so, what is it like?
- 5 What makes your robot or AI device unique?

- 4 Prepare your design for submission to a science fair using the following guidelines.

- Design a poster or slide presentation showing your creation, including a name, title, and pictures of your robot or AI device.
- Write a description of the robot or AI device.
- Make a presentation using your poster or slides.

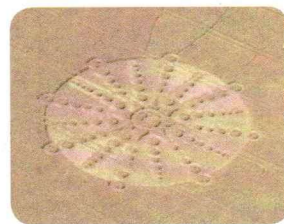
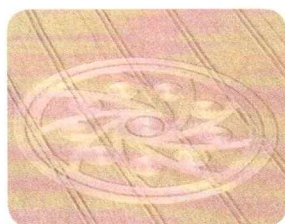


Mysterious Crop Circles

This video examines a strange phenomenon that has taken place in the English countryside for many decades. From time to time, crop circle patterns have appeared, with people debating for years their possible causes and meanings.

BEFORE YOU WATCH

Look at the photos from the video and discuss the questions in groups.



- 1 What do you think these patterns represent?
- 2 Who or what do you think made these patterns and how?

WHILE YOU WATCH

Answer these questions.

- 1 Who do some people think the circles are made by?
- 2 Why did Mr Presley decide to find out more about the circles?
- 3 Where were other types of circles found?
- 4 Why do Matthew and his team like making crop circles?
- 5 What does Matthew think some people use the crop circles for?

AFTER YOU WATCH

Discuss the following questions in groups.

- 1 Do you believe crop circles are all made by humans or by aliens? What do you think the crop circles represent?
- 2 What kind of crop circle would you create? Discuss and decide on its appearance and meaning. Draw it on a large sheet of paper. Then present it to the rest of the class.