



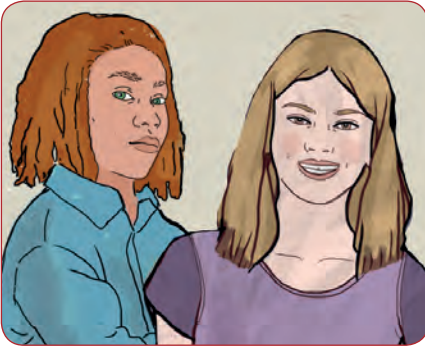
CONTENTS

Meet the Author	6
About the Series	7
Guidebook The Solar System	8
Let's talk about... Robots	10
Characters	12
Before Reading	14
1 The day time changed	17
2 Let's dance	18
3 A ship... but not a ship	26
4 The <i>SS Odysseus</i>	30
5 Meeting Michael	34
6 The announcement	39
7 In one way, out another	42
8 Prisoners	46
9 Not human	52
10 The legend of Prometheus	54
11 The first law	60
12 The green room	64
After Reading	69
History Detectives Exploration! Our solar system and beyond	78



About the Series

Meet the Time Detectives

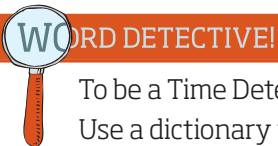


Liam and Rose are the **Time Detectives**. But are they really detectives? No, they aren't trying to solve crimes. But every adventure they have is a mystery, a mystery they must solve. Like detectives, Liam and Rose look for clues. When they travel through time, they face the same questions:

- ★ Where are we?
- ★ When are we?
- ★ What is happening?
- ★ Who are the people we meet?
- ★ Who can we trust?
- ★ Are we in danger?

Liam and Rose are two twenty-first century friends. But when they travel in time, they lose the technology they use every day. So they have no phones, no internet, no messaging or social media, no GPS. They are on their own and they only have their own skills and ideas.

Some people say that history repeats itself. But really, it's *people* that repeat themselves. So when Liam and Rose travel into the past or into the future, they discover people and situations that reflect their own world and their own time. And they face new and unexpected challenges.



To be a Time Detective you need to know these words.
Use a dictionary to look them up.

detective solve crime unexpected clue mystery

Did you know?

The sunlight you feel on your face is 30,000 years old, but it takes only 8 minutes and 20 seconds to travel to Earth!

Mercury

Diameter 4,879 km
Orbit distance
57,909,227 km

The first of the four rocky planets and the smallest. But Mercury is... strange. A year on Mercury (88 Earth days) is shorter than one of its days (176 Earth days)! (How can that happen? Think!) It is also extreme. The side facing the Sun has temperatures up to 427°C while the other side falls to -173°C.

Venus

Diameter 12,104 km
Orbit distance
108,209,475 km

The second-brightest object in our night sky after the Moon, Venus, is the hottest planet with surface temperatures up to 462°C. Often called Earth's sister planet, it was once thought to be a tropical paradise. With its heat and clouds of sulphuric acid, it is more like hell.

Earth

Diameter 12,756 km
Orbit distance
149,598,262 km

Our 'blue planet' is the only one not named after a Greek or Roman god. Water covers 71% of Earth's surface.

Mars

Diameter 6,792 km
Orbit distance
227,943,824 km

The last of the four rocky planets, Mars, is amazing. At 21 km, it has the tallest mountain in the solar system, and the largest dust storms which can last for months, covering the whole planet. The iron in this dust means Mars is known as the 'red planet'.

The solar system

A quick trip into space

Put on your helmet, step onto our spaceship, and let's check out the planets in our solar system.

What are planets made of?

There are four **Rocky Planets** and four **Gas Giants** in our solar system. Our planet, Earth, is a rocky planet, but also the only planet with liquid water. Rock, gas and water are all made from **elements**.

All the elements in our Universe are made from the same matter. We are all made of stardust.

Investigate



MP3 Listen, then complete the Universe Fact File in your Time Detective Notebook.

Neptune

Diameter 49,528 km Orbit distance 4,498,396,441 km

The last of the gas giants, Neptune is a strange icy, stormy world where winds can reach 2,000 km per hour. About 4,500 million kilometres from the Sun, a year on Neptune is nearly 165 Earth years.

Uranus

Diameter 51,118 km Orbit distance 2,870,658,186 km

It takes a lifetime[•] for Uranus to orbit the Sun – 84 years. And it is the coldest of all the planets with temperatures falling to -224°C. It looks blue in photographs because of the water and methane crystals in its atmosphere[•].

Saturn

Diameter 120,536 km Orbit distance 1,426,666,422 km

Saturn is most famous for its rings, which are made of ice and dust. The second-largest of the planets, Saturn is mainly made of hydrogen, helium and methane. At least 62 moons orbit around Saturn, including Titan.

Jupiter

Diameter 142,984 km Orbit distance 778,340,821 km

Visible to the naked eye and famous for its Great Red Spot, Jupiter is the largest planet in the solar system. It's so big 1,300 Earths could fit inside it! It is the first of the gas giants and takes 11.8 years to orbit the Sun, but a day on Jupiter lasts less than 10 hours. Ganymede is the largest of its 79 moons.

Investigate



Find the **Periodic Table of Elements** online. Then write down the symbols for these elements: iron, hydrogen, helium, sulphur, nitrogen and oxygen. Which elements make up water? Which elements make up methane?

Write your answers in your Time Detective Notebook.

GLOSSARY

- **atmosphere:** mix of gasses around a planet
- **diameter:** length of a line that crosses a circle through the centre
- **dust:** many tiny pieces of dry material
- **hell:** (here) terrible and difficult place
- **helmet:** strong hard hat that protects the head
- **lifetime:** (here) length of time a person can live
- **matter:** physical substance everything is made of
- **orbit:** (here) path that planets move along around the sun
- **sulphuric acid:** strong, dangerous liquid
- **surface:** outside part

Robots



Rosie

Online

Hello I'm Rosie. I'm a robot and I'm here to answer your questions.

What is a robot?

I'm a machine. Humans made me. I can sense the world around me and I can do tasks for humans.

What were the first robots?

The first automatic machines were made 2,000 years ago by the Ancient Greeks, Arabs and Egyptians. In tenth century China there was even a machine that dressed the queen and served tea. 500 years ago, the Italian genius • Leonardo da Vinci designed a mechanical knight that could stand and sit, and even play the drums! But it was computers that made modern robots possible.

Why are you called robots?

Our name comes from the Czech word 'robota', which means forced labour •. In 1920, a Czech playwright called Karel Capek wrote a play called *R.U.R – Rossums Universal Robots*. The story is set in a future where robots are forced to do all the work for humans. But then there is a robot rebellion • and humans are forced to be their slaves •! Don't worry – I would never do that!

Do all robots look like humans?

Most robots don't look like people! We come in all shapes and sizes from very small to very big. In a factory, a robot might be an arm that lifts parts and fits • pieces together. In space research, robots are exploring • planets and look more like spaceships.

Investigate 🔍

How are robots used in space exploration?

Write your answers in your Time Detective Notebook.



Spaceship orbiting Earth



Why do you look human?

I am an android robot. I was designed to look like a human and I can do human things. I can see and avoid objects, walk, run, dance and climb stairs. I can also talk to people and recognise their faces... and I'm a teaching assistant! Do you think I'm doing a good job?

Can robots think?

Many robots are made with computer technology and don't think in a human way. They use mathematics to solve problems. But I have AI (artificial intelligence) and I can learn and improve. We can't match human intelligence yet, but in the future... who knows?

What jobs are robots good at?

Robots never get tired and rarely make mistakes. Humans are great – I love them! – but they make mistakes, especially with boring tasks. We can also work at night and in places which are too dangerous for humans such as volcanoes or deep under the sea. Oh, and we don't go on holiday.

Are there any famous robots?

In the movies, yes! Humans love stories about us. The most popular characters are probably C-3PO and R2-D2 in the first *Star Wars* film. Do you know them?



C-3PO and R2-D2



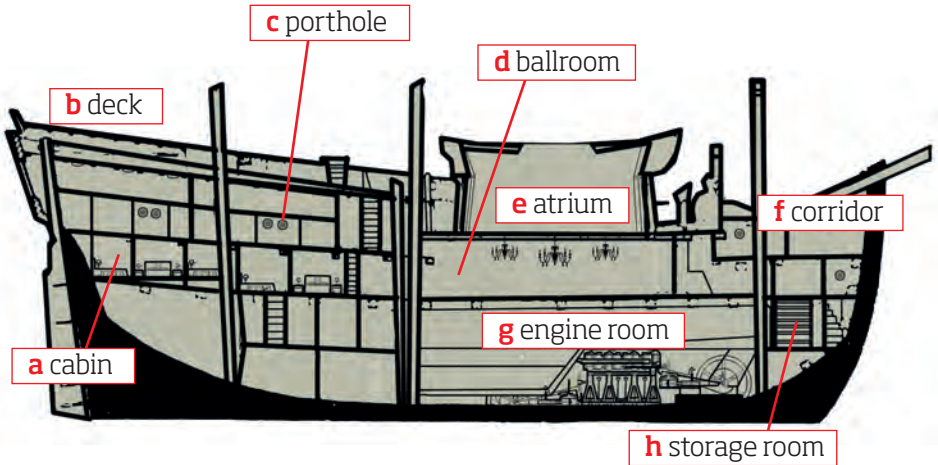
GLOSSARY

- **avoid:** stay away from
- **exploring:** travelling to and finding out about a place
- **fits:** puts together
- **genius:** extremely skilled and intelligent person
- **labour:** work
- **match:** (here) be as good as
- **rebellion:** action against people in power, to take control
- **recognise:** know
- **slaves:** people who are owned like objects
- **volcanoes:**



Before Reading

1 Match the words and the definitions.



- a large room which is used for dances
- a place where things are kept
- the floor of a ship, extending from one side to the other
- the place where the engines are on a ship
- a round window, usually with a cover
- a passageway, often with doors on either side
- a room in a ship where people live or sleep
- a large open space, often with a glass roof

Living words

Many **common expressions** in English come from **ships and sailing**. Take a look at these. *All in the same boat* means we are all in the same (usually bad!) situation. *Know the ropes* means to understand how to do a job. Originally, it meant to understand how to use all the ropes on a sailing ship. When you *hit rock bottom*, it means to be at a very bad point in your life. If a boat hits the bottom of the water, it isn't a good thing!

2 Read an extract from *The Last Voyage*. Complete the extract with the following words.

cruise hang type detail scanned hero
crowded luxury everything screwed

He looked around the ballroom - at the columns, the metal and glass, the patterned walls. **a** seemed incredibly expensive. It was like a

b hotel. Only one **c** was a bit odd.

'Have you seen that window?' he asked.

There was a round window high on the wall. It was circular with a metal frame. Outside the night sky was **d** with stars.

'I don't think we're high up,' he said. 'That's a port hole, the **e** of window you find on ships.'

'On ships?' repeated Rose. 'Wow! You mean we're on a big old luxury **f** ship?'

She **g** the ballroom, then looked back at Liam.

'**h** on. This ship is old. It couldn't be...' She gulped. 'It couldn't be the *Titanic*, could it?'

'Relax,' said Liam smiling. 'Take a look at this chair.'


There was a small metal plate **i** into the wood. It read:

Property of *SS Odysseus*

'Nice,' she said. 'Like the Ancient Greek **j** The mythical voyager.'

3  Discuss the questions. What do you think?

- Why does Liam examine his surroundings so closely?
- Where do Liam and Rose think they are? Why?
- Why is Rose worried?
- Why is the story called *The Last Voyage*?

4  Work with a partner. Look at the chapter headings on the Contents page. What do you think happens in the story? How do you think it ends?

5  Share your ideas with the class.

2 LET'S DANCE

2 Rose couldn't believe her eyes. Or her ears.

She found herself next to Liam on a balcony, looking down on a dance floor. People were dancing – the women in beautiful long dresses, the men in black suits with long tails. At the far end of this enormous room an orchestra was playing. There were violins, trumpets, and a piano – the musicians were playing music from long ago in the last century. And the tall, elegant dancers below were moving in perfect rhythm.

'Rose?'

She turned to Liam. His face was pale.

'Are you OK, Liam? How do you feel?'

'I don't know. A bit dizzy. What about you?'

Rose shrugged and smiled. 'Erm... good! I feel like dancing!'


She laughed. Then she realised that Liam was looking so white he might faint.

'Hey, Liam, there are some chairs over there. Sit down for a minute.'

Liam sat down on one of the gold-painted chairs. He took some deep breaths. He didn't move, he just listened to the music that was filling the air.

They looked down through the railings at the dancers and the musicians. There were waiters, too, standing against the walls, holding trays full of drinks and snacks. They were wearing the same white jackets and black bow ties as the orchestra.

GLOSSARY

- **bow ties:** 
- **dizzy:** feeling of spinning around and losing one's balance
- **elegant:** attractive and gentle in movements and appearance
- **faint:** fall to the floor suddenly because he feels weak
- **rhythm:** pattern of sounds or music that bodies move to
- **tails:** (here) formal suit jacket with a long back




1  Work with a friend. Find the following instruments in the picture.

piano violin trumpet clarinet flute
double bass drum saxophone





2 Go to Helbling e-zone to check your answers and listen to the instruments. **e-ZONE** ONLINE ACTIVITIES
Poster Page

3  Look at the clothes and the room. What time in history do you think Rose and Liam have travelled to? Discuss with a friend.

‘I think the air pressure’s a bit weird,’ said Rose. ‘I went to Mexico City a couple of years ago. It’s at a really high altitude so the air’s thinner. There’s less oxygen. It can make you feel weird.’

‘Where do you think we are?’ Liam asked.

‘In the 1920s?’ Rose suggested. ‘Their clothes all seem to be 1920s style. It’s crazy music, isn’t it? It sounds a bit weird. Are they real instruments? But it’s a lot of fun!’



He nodded. Gradually the strange sensation passed and he started to feel better. He looked around the ballroom – at the columns, the metal and glass, the patterned walls. Everything seemed incredibly expensive. It was like a luxury hotel. Only one detail was a bit odd.

‘Have you seen that window?’ he asked.

GLOSSARY

- **air pressure:** weight of air pressing down on a surface
- **altitude:** height above sea level
- **columns:** tall vertical posts that support a roof
- **gradually:** slowly over a period of time
- **luxury:** beautiful, comfortable and expensive
- **sensation:** feeling

There was a round window high on the wall. It was circular with a metal frame. Outside the night sky was crowded with stars.

‘I don’t think we’re high up,’ he said. ‘That’s a port hole, the type of window you find on ships.’

‘On ships?’ repeated Rose. ‘Wow! You mean we’re on a big old luxury cruise ship?’

She scanned the ballroom, then looked back at Liam.

‘Hang on. This ship is old. It couldn’t be..’ She gulped. ‘It couldn’t be the *Titanic*, could it?’

‘Relax,’ said Liam smiling. ‘Take a look at this chair.’

There was a small metal plate screwed into the wood. It read:



‘Nice,’ she said. ‘Like the Ancient Greek hero. The mythical voyager.’

Investigate

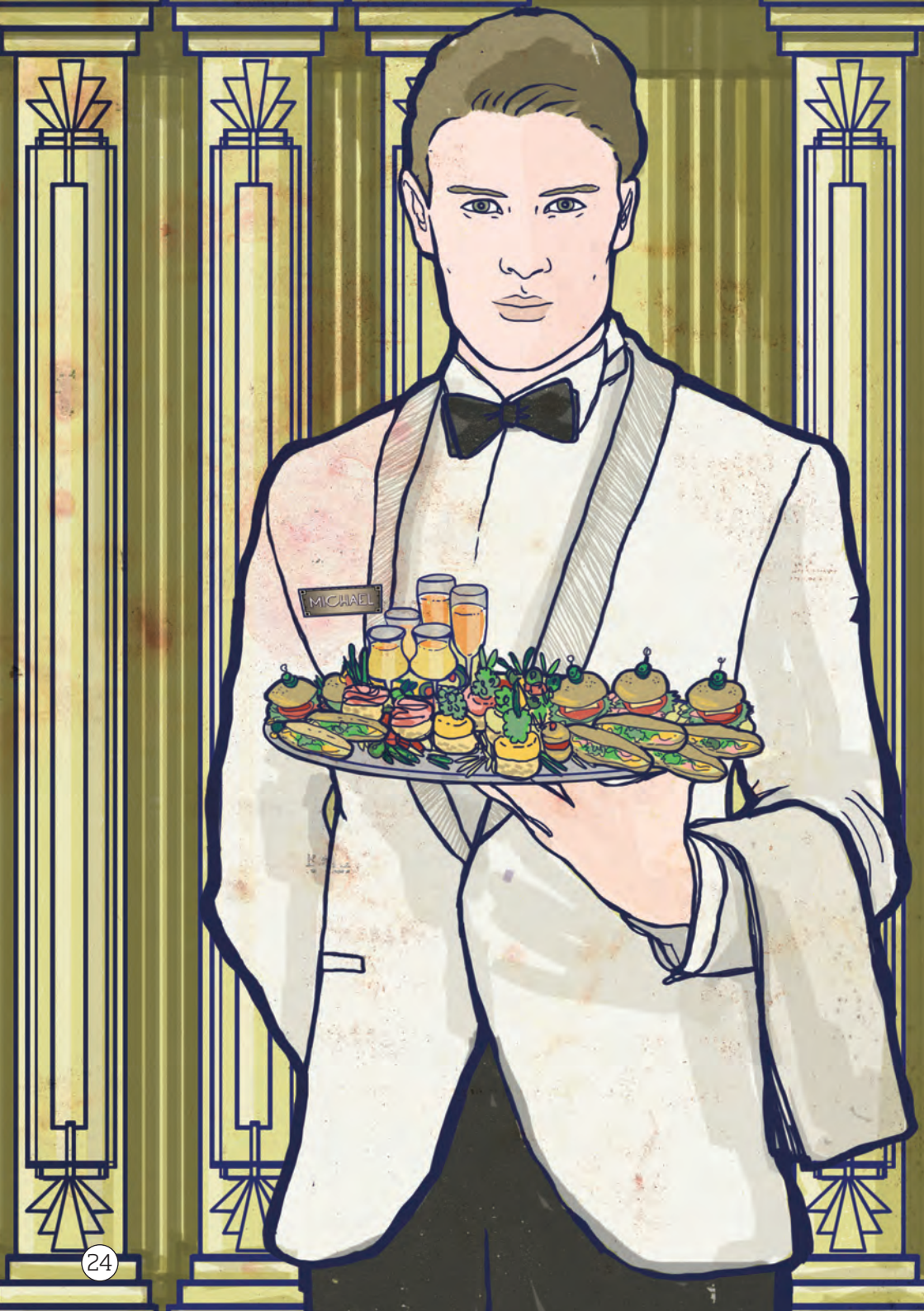


Find out about Odysseus.

Write your findings in your Time Detective Notebook.

At that moment, the song ended. In the sudden quiet, they heard a click. A door was opening in the wall. Somebody was coming onto the balcony. It was one of the waiters.

- **frame:** border that supports a window or picture
- **gulped:** swallowed air quickly, usually in fear or surprise
- **hang on:** (here) stop and think!
- **mythical:** existing only in stories
- **scanned:** (here) looked across the room carefully
- **screwed:** (here) fastened; attached
- **voyager:** traveller; explorer



‘Good evening,’ the waiter said. He kept one of his hands out of sight. ‘I noticed you on the balcony,’ he continued. ‘Would you like some refreshments?’

‘Yes, please,’ said Rose.

At that moment, the waiter revealed that he was holding a tray with drinks and delicious-looking snacks. As he walked closer, Rose noticed his smooth skin and perfect teeth. He looked like a Hollywood actor! A badge showed that his name was Michael.

‘Is that a cocktail?’ she asked, pointing at the glasses.

‘Yes, but it is alcohol-free,’ said Michael. ‘I saw you were underage.’

‘Gosh, he acted quickly,’ thought Liam.

They took some drinks and a few sandwiches.

‘We’re kind of hungry,’ Rose explained, embarrassed.

‘Please take anything you want,’ said Michael.

‘Thank you very much,’ said Liam.

They piled their plates high with food. Michael waited until they had everything they wanted. Then he turned and left.

‘Wow!’ said Rose. ‘This is just perfect!’

Michael

Look at the picture.

What do you think Michael is like?

 Describe him to a friend.

GLOSSARY

- **alcohol-free:** without alcohol
- **cocktail:** drink made from a mixture of different drinks
- **piled:** placed many objects on top of each other
- **refreshments:** small amounts of food and drink
- **underage:** younger than the legal age to do something

After Reading

Vocabulary

1 Put the verbs in the correct groups. They can go into more than one group.

clap click scream whisper bang gasp
sigh beep shout gulp hum



2 Add one more word of your own to each group.

3 Complete the extracts from the story with the sound words from Exercise 1. Put them in the correct form.

- a A cold wind blew into their faces. They heard a terrible
- b 'Hang on. This ship is old. It couldn't be...' She 'It couldn't be the *Titanic*, could it?'
- c Half an hour later the orchestra played their last number. Liam and Rose started - then quickly stopped.
- d Suddenly, a loud noise came from the ceiling. 'Uh-oh. Can you smell smoke?' Rose said.
- e They heard a soft and a door slid open.
- f He stared out of the window. He on the door.
- g 'What are you saying? That's madness!' Rose.

4  Listen and check your answers.

After Reading

Cambridge English Exams

K A2 Key English Test Reading and Writing Part 4

1 Read the extract from the story. Without looking at the story choose the correct word for each space.

The elevator looked like **1** from an old black and white movie. But **2** a few seconds, its doors opened and Rose and Liam stepped out onto the top deck. And they gasped. There was a panoramic window **3** the ceiling. They stared in surprise at Saturn and its gleaming magical rings. Saturn. The sixth planet from the sun. The second- **4** planet in the solar system. Its rings of rock and ice, first **5** by Galileo Galilei in 1610, glittered above their heads.

They sat at a table under that amazing view and looked **6** the menu. Almost immediately, a waitress came up and asked, 'What **7** you like?' Liam noticed that she had the same perfect good looks of the stewards. She was a bit shorter than Michael, that's **8** , and her hair was longer. Her eyes were bright and sparkling **9** stars. But Liam and Rose **10** have time to order.

- | | | | |
|-----------|---------------------|--------------------|---------------------|
| 1 | A anything | B something | C everything |
| 2 | A during | B when | C after |
| 3 | A in | B on | C under |
| 4 | A large | B larger | C largest |
| 5 | A saw | B to see | C seen |
| 6 | A at | B on | C in |
| 7 | A did | B do | C would |
| 8 | A everything | B all | C a lot |
| 9 | A like | B similar | C of |
| 10 | A don't | B haven't | C didn't |