

READING TEST

READING PASSAGE 1

Questions 1-7: The text has seven paragraphs, A–G. Choose the correct heading for each paragraph. You do not need to use all the headings.

List of Headings

- i The role of the Matariki in bringing different generations of people together*
- ii Different ancient legends told in New Zealand about how the Matariki were created*
- iii The possibility of the Matariki replacing traditional national holidays*
- iv Current interest in a craft once commonly associated with celebrating Matariki*
- v The importance of the Matariki as a navigational tool in the past*
- vi Other cultures' legends about the origin of the seven stars*
- vii The Matariki's influence on customs associated with agriculture*
- viii The decline and later revival of the celebration of Matariki*
- ix The kind of traditional dishes guests can expect to receive during Matariki*
- x A strategy for locating the formation of the stars that make up the Matariki*

1. Paragraph A _____

5. Paragraph E _____

2. Paragraph B _____

6. Paragraph F _____

3. Paragraph C _____

7. Paragraph G _____

4. Paragraph D _____

The meaning and celebration of Matariki

Henry Wilkes travels to New Zealand to investigate an ancient Māori tradition

A Over the cliffs at Mission Bay in Auckland, New Zealand, an incredible number of kites give extra colour to the cold blue sky. It is no coincidence that so many people have gathered here to fly them; they have come together to celebrate the arrival of the Matariki, the group of seven stars that appear in mid-winter. Many of the kite fliers are Māori, descendants of the people who first arrived in New Zealand in the 13th century, but others have European ancestors, or are recent immigrants to this country. What all of them have in common is that they are keen to take part in the celebration, and a key part of this is the designing and making of a kite. The Māori used to make them out of pampas grass, flax and the bark of the mulberry tree, and would often decorate them with shells or feathers. Nowadays, although it is easy enough to

make a modern plastic kite, people prefer to follow their customs and use traditional methods and materials.

B Before the Europeans began to arrive and settle in New Zealand, festivities associated with the Matariki were popular amongst all Māori tribes. They gradually began to disappear, eventually coming to an end with the last traditional festival held in the 1940s. It wasn't until the beginning of the 21st century that people began calling in large numbers for Matariki to be brought back as a cultural event. In 2000, around 500 people attended a community gathering and public firework display in Hastings, New Zealand, to mark the return of Matariki. This year, over 20,000 people are expected to participate in the same event. And around the rest of New Zealand, other similar events are co-ordinated.

C Māori have several stories about the origins of the Matariki. One is connected to their creation myth, in which the god of the weather and winds threw his eyes into the heavens, where they became the seven stars. In another version, the god of the forests, Tāne Mahuta, became jealous of a very bright star which everyone admired. He angrily threw the star to destroy it but instead it broke up into seven smaller stars. In a third myth, the main star is a mother and the six smaller ones are her daughters. Regardless of the origins, Māori communities have traditionally celebrated in similar ways.

D Although Māori living in New Zealand recognise January 1st as the official start of the year, it is the appearance of the Matariki which traditionally marks the beginning of the Māori New Year. Of course, people living in different parts of the world will be able to see the cluster of seven stars at different times of year. However, for New Zealanders hoping to see the Matariki, they should keep an eye out from the second week of June. If they look towards the north-east horizon, slightly to the west of where the sun rises, they should have a good chance of spotting it in the tail of the Milky Way. Of course, it is best to get up an hour before dawn, so the stars are bright enough to be easily noticed. A pair of binoculars can come in handy, too.

E Like the first people to settle in Tonga, Samoa, Niue, the Cook Islands, Hawaii and Tahiti, the Māori were great sailors. All these Polynesian peoples were able to travel long distances over water by observing the position of the stars. The seven stars that made up the Matariki were especially useful due to the fact that they changed position during the year, showing a clear direction for the huge traditional canoes to follow. It's easy to see the common ancestry of the people of Polynesia when you look at the names for the Matariki in the different countries: it is *Matali'i* in Samoa, *Makali'i* in Hawaii, and *Mataliki* in Tonga, for example.

F Nowadays, as in the past, Matariki celebrations provide an excellent opportunity for communities to unite. It is a time when people reflect on the experiences of the year which has just passed, give thanks for the good things they have received from the land and the sea, and look forward to the year ahead. It is also the perfect time for older members of the extended

family or local tribe to share their knowledge with the young. They may teach them traditional songs or stories, demonstrate old ways of fishing or catching eels, or show them how to prepare *hangi* (food which is cooked on heated stones in a hole in the ground). For many Māori children, this contact and experience gives them a strong sense of cultural identity and belonging.

G While Māori arts such as carving and weaving were practised during Matariki celebrations in the past, the arrival of the seven stars had another significant role. Māori decided when to plant their crops according to how easily the stars could be seen. If they were clear and bright, Māori believed that the growing season would be a productive one, and they would plant their crops in September. But if they appeared to be out-of-focus and closer together than usual, they knew that the winter was going to be an extremely cold one. This meant they wouldn't start planting until October. But Matariki also occurred at harvest time, so there was plenty of food to share around between family members and visitors. This kind of feasting is still very much part of the modern celebrations.

READING PASSAGE 2

What does it take to become an astronaut?

A What could be more thrilling than travelling through space and seeing the Earth from miles above? Becoming an astronaut used to be a typical ambition for children, but one they were unlikely ever to fulfil – it was even harder to achieve than becoming a rock star or Hollywood actor. However, since it was launched, the International Space Station (ISS) has been home to well over 200 people from 18 different countries. Although some critics complain that investing in the ISS is a poor use of billions of dollars, they should not forget that research in the unique conditions of the ISS has resulted in some incredible discoveries in medical treatments, weather science and satellite technology, which we now use on Earth. More teams are scheduled to be sent up in the future and are certain to make even more valuable contributions to humanity.

B So what are the requirements for someone wanting to work on the ISS? First, the applicant must be a citizen of the nation whose space programme they are applying for, or be willing to become one. Age is also important, mid-20s to mid-40s being the preferred range. Natural intelligence is vital, and so is achievement in such fields as engineering, biological and physical sciences, and mathematics. Candidates are nearly always from a military background, often because they already have piloting skills, but in some countries, civilians can also apply. For example, in the USA, the National Aeronautics and Space Administration (NASA) considers people from a wide range of backgrounds.

C Obviously, applicants are unlikely to have previous space-travel experience when they attend an interview, but recruiters also look for qualities such as adaptability and determination. Even after an applicant has got through the first stage of the interview process, there are still other

tests they have to pass. For example, if it is discovered that the quality of an applicant's eyesight is poor then, unfortunately, it's time to go home. There is a tough physical examination as well. Astronauts need to prove they are in good shape because if they are eventually chosen to go on a mission, they will have to survive long months in microgravity, something which can cause uncomfortable swelling in the arms and legs, and can affect the cardiovascular system.

D Eventually, out of all the applicants that apply, a small group is chosen to attend a two-year period of study. During this time, they will learn a whole range of new things, such as a new language (they will have to communicate with other nationalities on the ISS). They will also have media awareness lessons and special preparation in a simulated zero-gravity environment. Once they have completed these sessions, the potential astronauts may have to wait years before being chosen to go up to the ISS. In other words, they need to be willing and able to depart at any time.

E If an astronaut is lucky enough to be sent to the ISS, he or she will have plenty to keep them busy. Mostly they will be involved in scientific research, experimentation and maintaining equipment. But just as in any home, the ISS must be kept clean. In fact, wiping and vacuuming up dirt and debris is even more important in space, as the tiny particles could cause huge problems if they got inside some of the computers or other equipment. Astronauts on board the ISS certainly report that they miss their children, their families and their friends on Earth, but few ever complain about boredom. Of course, technology makes it a lot easier to stay in touch nowadays.

F While the daily routine for an astronaut on the ISS may be little different from any other kind of job, there are many new challenges each astronaut faces when they take their first trip into space. One of these is getting used to the fact that there is no more 'night' and 'day' – at least, not in the way the astronauts have previously experienced them. In fact, astronauts on the ISS will see a sunrise, or sunset, every 45 minutes. Travelling at 17,500 miles an hour means they orbit the Earth 16 times in a normal 'day'. As a result, it means they won't know when they are supposed to sleep any more. This is one of the reasons why they need to follow the schedule that is organised for them. The schedule also tells them when they need to visit the gymnasium – which is at least once a day. If they do not exercise regularly, they will soon lose all the muscle in their legs.

G Another challenge concerns when, what and how the astronauts eat. The schedule, of course, tells them when it's time to heat up a packaged meal, some of which are now prepared especially to suit the tastes of the different nationalities amongst the crew. However, for a long time astronauts have reported that normal food loses its flavour in the ISS, and they find it harder to taste anything. Scientists think this has something to do with the fact that fluid moves to the upper body in microgravity, especially the head. This causes the tissues of the face to swell slightly and makes the nose feel blocked. This is why ISS crews often prefer really spicy food

and strong flavours. If the food still isn't spicy enough, they can add salt and pepper, but these have to be squeezed out of tubes in liquid form!

Questions 8-17: Which paragraph contains the following information? Write A-G next to the statement.

NB: You may use any letter more than once.

8. Details of the way that the ISS moves around the planet
9. A reason why applicants are rejected early on in the recruitment process
10. An account of how a particular human sense can be affected during time spent on the ISS
11. A challenge to the idea that the funding of the ISS is wasteful
12. A justification for the fitness tests that potential astronauts have to pass
13. A mention of both specialised and routine work that is carried out on the ISS
14. Examples of the necessary academic requirements for applicants
15. An explanation of why astronauts need to stick to a strict timetable in space
16. A comparison between different kinds of occupation
17. A reference to the kind of skills acquired during an astronaut training programme

READING PASSAGE 3

The future of energy sources

The future for petroleum use at the moment looks rather uncertain, despite enjoying the major benefit of a very advanced infrastructure already in place. The downsides from the environmental point of view are patently obvious: carbon dioxide emissions in exhaust fumes which could harm public health.

The picture for natural gas is similarly mixed. While its main strength lies in its being a relatively clean fuel involving little processing and being easily transportable via pipelines, natural gas requires compression or low temperatures if it is to be used for cars or other vehicles.

Yet there is another problem with natural gas. It may produce less carbon dioxide than other fossil fuels, but the major stumbling block to its use is that the methane released lives for a long time in the atmosphere. In addition, as it is a non-renewable energy source like petroleum, in coming years natural gas will not be in use. But in the short term at least, the situation looks rosy.

Ethanol, despite the drawback of a dearth of commercial outlets, heralds a new dawn for the energy market. But, before we consider ethanol in depth, let us look at hydrogen. It is perhaps the most attractive of all renewable fuels. Its greatest appeal is that it is readily available everywhere in the form of water. Solar energy is used to split the water into hydrogen and oxygen and then recombine it, with water being the waste by-product. Perhaps its main drawback is making the hydrogen production units small enough to fit cars. But once this happens, the future of hydrogen is bright.

Questions 18-24: Complete the table below. Choose NO MORE THAN TWO WORDS from the passage for each answer.

Type of fuel	Main advantage	Main disadvantage	Future
Petroleum	Very advanced infrastructure	18. _____	Uncertain
Natural gas	Relatively clean	Produces 19. _____	20. _____
Ethanol		Lack of 21. _____	Signals a 22. _____
Hydrogen	23. _____	Hydrogen production units for cars not small enough	24. _____

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