6 Astronomy

Getting Ready to Read

A. Learn the words.

Key Vocabulary

solar having to do with the sun

inside in something

atmosphere outer layer of gases around a planet or star

TOEFL Vocabulary

segment part

core the central part of something surface the outer part of something

eventually after a long time to continue to be

Learn the question type.

TOEFL Question Type

Summary

Directions: An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the THREE answer choices that express the most important ideas in the passage. Some sentences do not belong in the summary because they express ideas that are not presented in the passage or are minor ideas in the passage.

This will be a correct summary sentence written in bold.

- This type of question asks for the main ideas in the passage to be identified.
- The incorrect answer choices will state minor ideas or ideas that are not in the passage at all.

Reading Passage

| - | Read the passage. | Number oach | naragraph | with the | corroct | main | idea or | nurnosa |
|----|-------------------|-------------|-----------|----------|---------|------|---------|-----------|
| L. | nead the passage. | Number each | paragraph | with the | conect | mam | luca OI | pui pose. |

- 1. Information on the surface of the sun
- 2. What the passage is about
- 3. Information on the atmosphere of the sun
- 4. Information on the solar core
- 5. What will happen to the sun

The Sun

| The sun is a star. A star is a giant circle of burning gas. There are three main parts |
|---|
| to the sun. |
| The first segment of the sun is the solar core. It is deep inside the sun and is |
| extremely hot. |
| The second segment of the sun is called the photosphere. It is the surface and it |
| is much cooler than the solar core. |
| The third segment of the sun is its atmosphere, which is called the corona. We |
| cannot see it from Earth. This is because it is not solid. It is made of different gases. |
| The sun will change and eventually die. It does not have enough energy to survive |
| forever. |
| |

D. Complete the summary notes by filling in the blanks.

| Topic: | The sun |
|-----------------|--|
| Introduction: | Is a |
| | Is a circle of burning |
| | Has three main |
| First Segment: | Solar |
| | • Deep |
| | Extremely |
| Second Segment: | |
| | Called photosphere |
| | • than core |
| Third Segment: | Atmosphere |
| | • Called |
| | Can't see it from |
| Conclusion: | Will change and die. |
| | Does not have enough to |

TOEFL Questions

F. Choose the correct answers.

Directions: An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the THREE answer choices that express the most important ideas in the passage. Some sentences do not belong in the summary because they express ideas that are not presented in the passage or are minor ideas in the passage.

The sun is a star with three main parts.

Answer Choices

- (A) The surface is called the photosphere.
- (B) The solar core is inside the sun.
- (C) The corona is the solid part of the sun.
- (D) The core is the coolest part of the sun.
- (E) The sun's corona is its atmosphere.

2. The sun will not last forever.

Answer Choices

- (A) The sun is made up of burning gasses.
- (B) The solar core is on the surface of the sun.
- (C) The sun does not have enough energy to burn forever.
- (D) The sun is made up of three parts: the core, the surface, and the atmosphere.
- (E) The sun's corona will last forever.

TOEFL Vocabulary Practice

F. Fill in the blanks with the correct words.

| | segments core surface eventually survived | | | | |
|--|--|--|--|--|--|
| The pyramids in Egypt have for thousands of years. | | | | | |
| 2. | About 71% of the Earth's is covered with water. | | | | |
| 3. | The of a baseball is made of cork or rubber. | | | | |
| 4. | 1. A telescope is made of several that fit together. | | | | |
| 5. | people will live in space. | | | | |

Practice

A. Learn the words.

Key Vocabulary

total complete partial incomplete

to move in a circular path around a larger object orbit

TOEFL Vocabulary

the study of space astronomy to hide from view block

entire whole

outline the outer edges of something; not the middle

things that happen event

B. Read the passage and underline the key information.

Solar Eclipses

Solar eclipses are very interesting. They are often studied in astronomy. An eclipse happens when the sun is blocked by the moon. There are two kinds of solar eclipses. The first is a total eclipse. The second is a partial eclipse.

A total eclipse is when the entire sun is blocked by the moon. Sometimes, as the moon orbits the Earth, it passes between the Earth and the sun. This makes the sun look dark. All that can be seen is an outline.

A partial eclipse is when only part of the sun can be seen. This happens when only part of the moon is between the Earth and the sun.

Most people think that an eclipse is an interesting event. However, it can be very dangerous to look at. 11 The sun is very bright. 12 11 can damage the eyes.

3) Even looking at a total eclipse is dangerous.

TOEFL Questions

- C. Choose the correct answers.

That's why you need special glasses to view an eclipse.

Where would the sentence best fit?

(A) Square 1

(B) Square 2

(C) Square 3

- (D) Square 4
- 2. Directions: An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the THREE answer choices that express the most important ideas in the passage. Some sentences do not belong in the summary because they express ideas that are not presented in the passage or are minor ideas in the passage.

A solar eclipse occurs when the moon passes between the Earth and the sun.

Answer Choices

- (A) Eclipses are very common.
- (B) A partial eclipse only blocks part of the sun.
- (C) A total eclipse occurs when the moon blocks the entire sun.
- (D) Partial eclipses look like a shadow on the surface of the sun.
- (E) Eclipses can cause eye damage if looked at.

TOEFL Vocabulary Practice

D. Fill in the blanks with the correct words.

| | blocked events | astronomy | entire | outline | | |
|----|---|--------------------------|------------------|-----------------|--|--|
| 1. | Some weather | , such as strong | tornados, can be | very dangerous. | | |
| 2. | When drawing a person, most people start with an | | | | | |
| 3. | is the study of the stars, planets, and universe. | | | | | |
| 4. | From space, astronauts can | | Earth. | | | |
| 5. | When there are many cloud | s, the view of the sun i | S | | | |

Read the passage.

Meteors

Meteors are pieces of rock in space. They float through space in groups. These groups are called meteor streams. Eventually, they enter Earth's atmosphere. This causes a special event. In astronomy, it is known as a meteor shower.

Meteor showers happen a lot. The Earth orbits the sun. As it does, it runs into many meteor streams. Scientists have found many of these meteor streams. They know of thirteen big streams that cause showers. Every year the Earth passes through the same meteor streams. Therefore, scientists can guess when the next one will happen. They know that meteor showers will happen each year at the same time. Sometimes many meteors enter the Earth's atmosphere at the same time. This is called a meteor storm.

■ 1) Meteors enter the Earth's atmosphere at high speeds. ■ 2) Meteors are usually small. ■ 3) Because they are so small, many of them burn up before they enter the atmosphere. ■ 4) The burning meteors make trails of fire. These can be seen from Earth. Many people call these falling stars. Very few ever make it inside the Earth's atmosphere.

Sometimes, a few meteors do make it through the atmosphere. When they do, they are called meteorites. However, the entire meteor will not survive. Only the segment that was not burnt when it entered the atmosphere will survive. When these hit the surface of the Earth, they can start fires or hit things, like cars.

Choose the correct answers.

- 1. The word orbits in the passage means
 - (A) blocks the light

(B) passes up

(C) moves away from

- (D) goes around
- 2. According to paragraph 2, all of the following are true EXCEPT
 - (A) there are very few known meteor streams
 - (B) Earth passes through the same streams each year
 - (C) scientists can predict when meteor showers will occur
 - (D) a meteor storm involves more meteors than a meteor shower

Which of the following best expresses the essential information in the highlighted sentence? Incorrect answers change the meaning in important ways or leave out essential information.

Every year, the Earth passes through the same meteor streams.

- (A) All the meteor streams that Earth passes through are similar.
- (B) The meteor streams pass through Earth's atmosphere the same year.
- (C) All the meteors in the streams are passed through Earth's atmosphere.
- (D) The same meteor streams are passed through by Earth every year.
- Look at the four squares () that indicate where the following sentence could be added to the passage.

In fact, they can be as small as a grain of sand.

Where would the sentence best fit?

(A) Square 1

(B) Square 2

(C) Square 3

(D) Square 4

- 5. Which of the following can be inferred about meteorites from paragraph 4?
 - (A) Many meteors hit the Earth everyday.
 - (B) It is not common for meteorites to hit the Earth.
 - (C) There are many more meteors than meteorites.
 - (D) Meteorites are very big.
- 6. Directions: An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the THREE answer choices that express the most important ideas in the passage. Some sentences do not belong in the summary because they express ideas that are not presented in the passage or are minor ideas in the passage.

Meteor showers are meteors entering the Earth's atmosphere.

Answer Choices

- (A) Meteor showers are caused by meteor streams.
- (B) Meteors are different from falling stars.
- (C) Meteors are the size of a grain of sand.
- (D) Meteors usually burn up when they hit the atmosphere.
- (E) Meteor showers can cause some damage to Earth's surface.

Check-up

Question Type Review

- A. Choose the correct answer.
- 1. A summary question asks
 - (A) for another sentence to be placed into the passage
 - (B) about details or facts that are in the passage
 - (C) for the main ideas in the passage to be identified
 - (D) what a word or phrase refers to

Key Vocabulary Practice

B. Fill in the blanks with the correct words.

| | solar | inside | total | partial | orbit | atmosphere | |
|----|---|-----------|--------------|--------------|--------------|-------------|--|
| 1. | The oxygen in | n Earth's | | allows li | ving things | to breathe. | |
| 2. | Many people get electricity for their home from panels that are put on their roofs. | | | | | | |
| 3. | The Earth's takes it through several meteor streams each year | | | | | | |
| 4. | A solar eclipse blocks only a portion of the sun. | | | | | | |
| 5. | It is very hot the Earth's core. | | | | | | |
| 6. | Even a | | _ eclipse ca | an be danger | rous to look | at. | |