

READING

This section measures your ability to understand academic passages in English.

There are three passages in the section. Give yourself 20 minutes to read each passage and answer the questions about it. The entire section will take 60 minutes to complete.

You may look back at a passage when answering the questions. You can skip questions and go back to them later as long as there is time remaining.

Directions: Read the passage. Then answer the questions. Give yourself 20 minutes to complete this practice set.

THE CAMBRIAN EXPLOSION

The geologic timescale is marked by significant geologic and biological events, including the origin of Earth about 4.6 billion years ago, the origin of life about 3.5 billion years ago, the origin of eukaryotic life-forms (living things that have cells with true nuclei) about 1.5 billion years ago, and the origin of animals about 0.6 billion years ago. The last event marks the beginning of the Cambrian period. Animals originated relatively late in the history of Earth—in only the last 10 percent of Earth’s history. During a geologically brief 100-million-year period, all modern animal groups (along with other animals that are now extinct) evolved. This rapid origin and diversification of animals is often referred to as “the Cambrian explosion.”

Scientists have asked important questions about this explosion for more than a century. Why did it occur so late in the history of Earth? The origin of multicellular forms of life seems a relatively simple step compared to the origin of life itself. Why does the fossil record not document the series of evolutionary changes during the evolution of animals? Why did animal life evolve so quickly? Paleontologists continue to search the fossil record for answers to these questions.

One interpretation regarding the absence of fossils during this important 100-million-year period is that early animals were soft bodied and simply did not fossilize. Fossilization of soft-bodied animals is less likely than fossilization of hard-bodied animals, but it does occur. Conditions that promote fossilization of soft-bodied animals include very rapid covering by sediments that create an environment that discourages decomposition. In fact, fossil beds containing soft-bodied animals have been known for many years.

The Ediacara fossil formation, which contains the oldest known animal fossils, consists exclusively of soft-bodied forms. Although named after a site in Australia, the Ediacara formation is worldwide in distribution and dates to Precambrian times. This 700-million-year-old formation gives few clues to the origins of modern animals, however, because paleontologists believe it represents an evolutionary experiment that failed. It contains no ancestors of modern animal groups.

A slightly younger fossil formation containing animal remains is the Tommotian formation, named after a locale in Russia. It dates to the very early Cambrian period, and it also contains only soft-bodied forms. At one time, the animals present in these fossil beds were assigned to various modern animal groups, but most paleontologists now agree that all Tommotian fossils represent unique body forms that arose in the early Cambrian period and disappeared before the end of the period, leaving no descendants in modern animal groups.

A third fossil formation containing both soft-bodied and hard-bodied animals provides evidence of the result of the Cambrian explosion. This fossil formation, called the Burgess Shale, is in Yoho National Park in the Canadian Rocky Mountains of British Columbia. Shortly after the Cambrian explosion, mud slides rapidly buried thousands of marine animals under conditions that favored fossilization. These fossil beds provide evidence of about 32 modern animal groups, plus about 20 other animal body

forms that are so different from any modern animals that they cannot be assigned to any one of the modern groups. These unassignable animals include a large swimming predator called *Anomalocaris* and a soft-bodied animal called *Wiwaxia*, which ate detritus or algae. The Burgess Shale formation also has fossils of many extinct representatives of modern animal groups. For example, a well-known Burgess Shale animal called *Sidneyia* is a representative of a previously unknown group of arthropods (a category of animals that includes insects, spiders, mites, and crabs).

Fossil formations like the Burgess Shale show that evolution cannot always be thought of as a slow progression. The Cambrian explosion involved rapid evolutionary diversification, followed by the extinction of many unique animals. Why was this evolution so rapid? No one really knows. Many zoologists believe that it was because so many ecological niches were available with virtually no competition from existing species. Will zoologists ever know the evolutionary sequences in the Cambrian explosion? Perhaps another ancient fossil bed of soft-bodied animals from 600-million-year-old seas is awaiting discovery.

Directions: Now answer the questions.

PARAGRAPH
1

The geologic timescale is marked by significant geologic and biological events, including the origin of Earth about 4.6 billion years ago, the origin of life about 3.5 billion years ago, the origin of eukaryotic life-forms (living things that have cells with true nuclei) about 1.5 billion years ago, and the origin of animals about 0.6 billion years ago. The last event marks the beginning of the Cambrian period. Animals originated relatively late in the history of Earth—in only the last 10 percent of Earth’s history. During a geologically brief 100-million-year period, all modern animal groups (along with other animals that are now extinct) evolved. This rapid origin and diversification of animals is often referred to as “the Cambrian explosion.”

29. The word “significant” in the passage is closest in meaning to
- (A) numerous
 - (B) important
 - (C) unexplained
 - (D) sudden
30. The word “relatively” in the passage is closest in meaning to
- (A) surprisingly
 - (B) collectively
 - (C) comparatively
 - (D) characteristically
31. The word “diversification” in the passage is closest in meaning to
- (A) emergence of many varieties
 - (B) steady decline in number
 - (C) gradual increase in body size
 - (D) sudden disappearance

32. The period discussed in the passage is referred to as an “explosion” because it
- Ⓐ occurred 0.6 billion years ago, late in Earth’s history
 - Ⓑ was characterized by the unusually fast evolution of many new life-forms
 - Ⓒ was characterized by widespread animal extinction
 - Ⓓ was characterized by violent volcanic eruptions

PARAGRAPHS
2
&
3

Scientists have asked important questions about this explosion for more than a century. Why did it occur so late in the history of Earth? The origin of multicellular forms of life seems a relatively simple step compared to the origin of life itself. Why does the fossil record not document the series of evolutionary changes during the evolution of animals? Why did animal life evolve so quickly? Paleontologists continue to search the fossil record for answers to these questions.

One interpretation regarding the absence of fossils during this important 100-million-year period is that early animals were soft bodied and simply did not fossilize. Fossilization of soft-bodied animals is less likely than fossilization of hard-bodied animals, but it does occur. Conditions that promote fossilization of soft-bodied animals include very rapid covering by sediments that create an environment that discourages decomposition. In fact, fossil beds containing soft-bodied animals have been known for many years.

33. According to paragraph 2, which of the following is NOT a question that paleontologists asked about the Cambrian explosion?
- Ⓐ Why was the origin of life a simple step in Earth’s history?
 - Ⓑ Why did it take so long for multicellular organisms to develop?
 - Ⓒ Why did animal life evolve so rapidly?
 - Ⓓ Why does the fossil record lack evidence of animal evolution during that time?
34. Which of the following best describes the relationship between paragraph 2 and paragraph 3?
- Ⓐ Paragraph 2 puts forward several scientific claims, one of which is rejected in paragraph 3.
 - Ⓑ Paragraph 2 poses several questions, and paragraph 3 offers a possible answer to one of them.
 - Ⓒ Paragraph 2 presents outdated traditional views, while paragraph 3 presents the current scientific conclusions.
 - Ⓓ Paragraph 2 introduces a generalization that is illustrated by specific examples in paragraph 3.
35. The word “promote” in the passage is closest in meaning to
- Ⓐ complicate
 - Ⓑ prevent
 - Ⓒ encourage
 - Ⓓ affect

The Ediacara fossil formation, which contains the oldest known animal fossils, consists exclusively of soft-bodied forms. Although named after a site in Australia, the Ediacara formation is worldwide in distribution and dates to Precambrian times. This 700-million-year-old formation gives few clues to the origins of modern animals, however, because paleontologists believe it represents an evolutionary experiment that failed. It contains no ancestors of modern animal groups.

36. Which of the following is NOT mentioned in paragraph 4 as being true of the Ediacara formation?
- (A) It contains fossils that date back to the Precambrian period.
 - (B) It contains only soft-bodied animal fossils.
 - (C) It is located on a single site in Australia.
 - (D) It does not contain any fossils of the ancestors of modern animals.

A slightly younger fossil formation containing animal remains is the Tommotian formation, named after a locale in Russia. It dates to the very early Cambrian period, and it also contains only soft-bodied forms. At one time, the animals present in these fossil beds were assigned to various modern animal groups, but most paleontologists now agree that all Tommotian fossils represent unique body forms that arose in the early Cambrian period and disappeared before the end of the period, leaving no descendants in modern animal groups.

37. Which of the sentences below best expresses the essential information in the highlighted sentence in paragraph 5? Incorrect choices change the meaning in important ways or leave out essential information.
- (A) The animals found in the Tommotian fossil bed were once thought to belong to a variety of modern animal groups, but now they are thought to have descended from a single group.
 - (B) Animals in the Tommotian fossil beds were initially assigned to modern animal groups but are now thought to belong to groups that emerged and died out during the Cambrian period.
 - (C) Though at first they thought otherwise, paleontologists now agree that the animals in the Tommotian formation have body forms from which modern animals have descended.
 - (D) It is unclear whether the Tommotian fossils from the early Cambrian period represent unique body forms or whether they should be assigned to various modern animal groups.

A third fossil formation containing both soft-bodied and hard-bodied animals provides evidence of the result of the Cambrian explosion. This fossil formation, called the Burgess Shale, is in Yoho National Park in the Canadian Rocky Mountains of British Columbia. Shortly after the Cambrian explosion, mud slides rapidly buried thousands of marine animals under conditions that favored fossilization. These fossil beds provide evidence of about 32 modern animal groups, plus about 20 other animal body forms that are so different from any modern animals that they cannot be assigned to any one of the modern groups. These unassignable animals include a large swimming predator called *Anomalocaris* and a soft-bodied animal called *Wiwaxia*, which ate detritus or algae. The Burgess Shale formation also has fossils of many extinct representatives of modern animal groups. For example, a well-known Burgess Shale animal called *Sidneyia* is a representative of a previously unknown group of arthropods (a category of animals that includes insects, spiders, mites, and crabs).

38. Why does the author mention “*Anomalocaris*” and “*Wiwaxia*”?
- (A) To contrast predators with animals that eat plants such as algae
 - (B) To question the effects of rapid mud slides on fossilization
 - (C) To suggest that much is still unknown about animals found in the Burgess Shale
 - (D) To provide examples of fossils that cannot be assigned to a modern animal group
39. “*Sidneyia*” is an example of
- (A) a relative of *Anomalocaris* and *Wiwaxia*
 - (B) a previously unknown Burgess Shale animal
 - (C) an extinct member of a currently existing category of animals
 - (D) an animal that cannot be assigned to any modern animal group

Fossil formations like the Burgess Shale show that evolution cannot always be thought of as a slow progression. The Cambrian explosion involved rapid evolutionary diversification, followed by the extinction of many unique animals. Why was this evolution so rapid? No one really knows. Many zoologists believe that it was because so many ecological niches were available with virtually no competition from existing species. Will zoologists ever know the evolutionary sequences in the Cambrian explosion? Perhaps another ancient fossil bed of soft-bodied animals from 600-million-year-old seas is awaiting discovery.

40. What can be inferred from paragraph 7 about why the Cambrian explosion is so unusual?
- (A) It generated new ecological niches through the extinction of many unique animals.
 - (B) It was a period of rapid evolution, and evolution is often thought of as a slow process.
 - (C) It is a period whose evolutionary sequences are clearly marked.
 - (D) It generated a very large number of ancient fossil beds containing soft-bodied animals.

One interpretation regarding the absence of fossils during this important 100-million-year period is that early animals were soft bodied and simply did not fossilize. ■ Fossilization of soft-bodied animals is less likely than fossilization of hard-bodied animals, but it does occur. ■ Conditions that promote fossilization of soft-bodied animals include very rapid covering by sediments that create an environment that discourages decomposition. ■ In fact, fossil beds containing soft-bodied animals have been known for many years. ■

41. Look at the four squares [■] that indicate where the following sentence can be added to the passage.

It is relatively rare because the fossilization of soft-bodied animals requires a special environment.

Where would the sentence best fit?

- (A) One interpretation regarding the absence of fossils during this important 100-million-year period is that early animals were soft bodied and simply did not fossilize. **It is relatively rare because the fossilization of soft-bodied animals requires a special environment.** Fossilization of soft-bodied animals is less likely than fossilization of hard-bodied animals, but it does occur. ■ Conditions that promote fossilization of soft-bodied animals include very rapid covering by sediments that create an environment that discourages decomposition. ■ In fact, fossil beds containing soft-bodied animals have been known for many years. ■
- (B) One interpretation regarding the absence of fossils during this important 100-million-year period is that early animals were soft bodied and simply did not fossilize. ■ Fossilization of soft-bodied animals is less likely than fossilization of hard-bodied animals, but it does occur. **It is relatively rare because the fossilization of soft-bodied animals requires a special environment.** Conditions that promote fossilization of soft-bodied animals include very rapid covering by sediments that create an environment that discourages decomposition. ■ In fact, fossil beds containing soft-bodied animals have been known for many years. ■
- (C) One interpretation regarding the absence of fossils during this important 100-million-year period is that early animals were soft bodied and simply did not fossilize. ■ Fossilization of soft-bodied animals is less likely than fossilization of hard-bodied animals, but it does occur. ■ Conditions that promote fossilization of soft-bodied animals include very rapid covering by sediments that create an environment that discourages decomposition. **It is relatively rare because the fossilization of soft-bodied animals requires a special environment.** In fact, fossil beds containing soft-bodied animals have been known for many years. ■

- Ⓓ One interpretation regarding the absence of fossils during this important 100-million-year period is that early animals were soft bodied and simply did not fossilize. ■ Fossilization of soft-bodied animals is less likely than fossilization of hard-bodied animals, but it does occur. ■ Conditions that promote fossilization of soft-bodied animals include very rapid covering by sediments that create an environment that discourages decomposition. ■ In fact, fossil beds containing soft-bodied animals have been known for many years. **It is relatively rare because the fossilization of soft-bodied animals requires a special environment.**

42. **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.

Write your answer choices in the spaces where they belong. You can either write the letter of your answer choice or you can copy the sentence.

The term “Cambrian explosion” refers to the geologically brief period during which all modern animal groups evolved.

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Answer Choices

- Ⓐ The Cambrian period is significant because it marks the emergence of eukaryotic life-forms—organisms that have cells with true nuclei.
- Ⓑ Little is known about the stages of evolution during the Cambrian period, in part because early animals were soft bodied and could fossilize only under particular conditions.
- Ⓒ The Ediacara fossil formation provides the most information about the Cambrian explosion, while the earlier Tommotian and Burgess Shale formations give clues about Precambrian evolution.
- Ⓓ While animal fossils from before the Cambrian explosion have no modern descendants, many animals that evolved during the Cambrian explosion can be assigned to modern groups.
- Ⓔ Zoologists are awaiting the discovery of a 600-million-year-old fossil formation in order to be able to form a theory of how animal evolution progressed.
- Ⓕ Although the reasons for the rapid evolution of animals during the Cambrian period are not known, one proposed explanation is an abundance of niches with a lack of competitors.

LISTENING

This section measures your ability to understand conversations and lectures in English.

Listen to each conversation and lecture only one time. After each conversation and lecture, you will answer some questions about it. Answer each question based on what is stated or implied by the speakers.

You may take notes while you listen and use your notes to help you answer the questions. Your notes will **not** be scored.

In some questions you will see this icon: . This means that you will hear, but not see, the question.

Answer each question before moving on. Do not return to previous questions.

It will take about 60 minutes to listen to the conversations and lectures and answer the questions about them.

Directions: Listen to Track 28. 

Chemistry



spectroscopy



Directions: Now answer the questions.

23. What is the main purpose of the lecture?
- (A) To discuss recent innovations in laboratory equipment
 - (B) To give an example of a practical use for a particular scientific technique
 - (C) To familiarize students with the chemical composition of paint pigments
 - (D) To show how researchers were able to restore a particular work of art
24. What does the professor imply when he mentions an art historian?
- (A) Art historians have been learning how to use spectrometers.
 - (B) Scientists need to learn how art historians analyze paintings.
 - (C) Confirming the authenticity of artworks requires collaboration.
 - (D) Spectroscopic analysis can help identify a painter's techniques.
25. Why does the professor discuss the presence of zinc in paint pigments?
- (A) To explain why some paints may deteriorate over the course of time
 - (B) To stress the need for caution when attempting to restore old artworks
 - (C) To show how pigments differ from varnishes and binding agents
 - (D) To show how spectroscopy can help establish the age of a painting
26. According to the professor, what is the primary advantage of spectroscopy over other laboratory methods for analyzing artworks?
- (A) It does not damage the artworks.
 - (B) It provides a more accurate analysis than other methods do.
 - (C) It uses equipment that can be transferred to other locations.
 - (D) It can be used by individuals with little scientific training.

27. What is one way the professor mentions that chemists can help with art restoration?
- Ⓐ By re-creating the pigments and binding agents used by artists of earlier eras
 - Ⓑ By removing pigments and binding agents that dissolve paintings over time
 - Ⓒ By creating protective coatings of paint that do not damage original paintings
 - Ⓓ By developing ways to safely remove paint added by previous restorers
28. Listen to Track 29. 
- Ⓐ He is searching for a synonym for the term.
 - Ⓑ He is not sure how much information the students need.
 - Ⓒ He is going to briefly address a related topic.
 - Ⓓ He is giving the students a writing assignment.

Directions: Listen to Track 30. 

Literature



folktales
fairy tales



Directions: Now answer the questions.

29. What is the lecture mainly about?

- (A) Oral traditions in folktales and fairy tales
- (B) Common characters and plots in folktales and fairy tales
- (C) Differences between folktales and fairy tales
- (D) Hidden meanings in folktales and fairy tales

30. What does the professor mean when he says that folktales are communal?

- (A) They vary little from one community to another.
- (B) They serve to strengthen ties among individuals within a community.
- (C) They relate important events in the history of a community.
- (D) They can be adapted to meet the needs of a community.

31. Why does the professor clarify the concept of a “fairy”?
- Ⓐ To explain the origins of the term “fairy tale”
 - Ⓑ To eliminate a possible definition of the term “fairy tale”
 - Ⓒ To support a claim about the function of fairy tales
 - Ⓓ To indicate that fairies are a major element in fairy tales
32. What does the professor say about the setting of fairy tales?
- Ⓐ The tales are usually set in a nonspecific location.
 - Ⓑ The location is determined by the country of origin of a tale.
 - Ⓒ The tales are set in a location familiar to the author.
 - Ⓓ A storyteller varies the location of a tale depending on the audience.
33. In the lecture, the professor discusses characteristics of folktales and fairy tales. Indicate the characteristics of each type of tale. *Put a check in the correct boxes.*

	Folktales	Fairy Tales
Their appeal is now mainly to children.		
The plot is the only stable element.		
The tales are transmitted orally.		
There is one accepted version.		
Characters are well developed.		
The language is relatively formal.		

34. Listen to Track 31. 
- Ⓐ To support the student’s statement
 - Ⓑ To ask the student to clarify her statement
 - Ⓒ To find out if the students know what story the line comes from
 - Ⓓ To clarify the relationship between time and space in fairy tales

SPEAKING

This section measures your ability to speak in English about a variety of topics.

There are six questions in this section. For each question, you will be given a short time to prepare your response. When the preparation time is up, answer the question as completely as possible in the time indicated for that question. You should record your responses so that you can review them later and compare them with the answer key and scoring rubrics.

5. You will now listen to part of a conversation. You will then be asked a question about it. After you hear the question, give yourself 20 seconds to prepare your response. Then record yourself speaking for 60 seconds.

Listen to Track 38. 



Briefly summarize the problem the speakers are discussing. Then state which of the two solutions from the conversation you would recommend. Explain the reasons for your recommendation.

Preparation Time: 20 seconds

Response Time: 60 seconds

6. You will now listen to part of a lecture. You will then be asked a question about it. After you hear the question, give yourself 20 seconds to prepare your response. Then record yourself speaking for 60 seconds.

Listen to Track 39. 



Using points and examples from the talk, explain the two types of motivation.

Preparation Time: 20 seconds

Response Time: 60 seconds