READING FINAL PRACTICE

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

WHICH HAND DID THEY USE?

We all know that many more people today are right-handed than left-handed. Can one trace this same pattern far back in prehistory? Much of the evidence about right-hand versus left-hand dominance comes from stencils and prints found in rock shelters in Australia and elsewhere, and in many Ice Age caves in France, Spain, and Tasmania. When a left hand has been stenciled, this implies that the artist was right-handed, and vice versa. Even though the paint was often sprayed on by mouth, one can assume that the dominant hand assisted in the operation. One also has to make the assumption that hands were stenciled palm downward—a left hand stenciled palm upward might of course look as if it were a right hand. Of 158 stencils in the French cave of Gargas, 136 have been identified as left, and only 22 as right; right-handedness was therefore heavily predominant.

Cave art furnishes other types of evidence of this phenomenon. Most engravings, for example, are best lit from the left, as befits the work of right-handed artists, who generally prefer to have the light source on the left so that the shadow of their hand does not fall on the tip of the engraving tool or brush. In the few cases where an Ice Age figure is depicted holding something, it is mostly, though not always, in the right hand.

Clues to right-handedness can also be found by other methods. Right-handers tend to have longer, stronger, and more muscular bones on the right side, and Marcellin Boule as long ago as 1911 noted the La Chapelle-aux-Saints Neanderthal skeleton had a right upper arm bone that was noticeably stronger than the left. Similar observations have been made on other Neanderthal skeletons such as La Ferrassie I and Neanderthal itself.

Fractures and other cut marks are another source of evidence. Right-handed soldiers tend to be wounded on the left. The skeleton of a 40- or 50-year-old Nabatean warrior, buried 2,000 years ago in the Negev Desert, Israel, had multiple healed fractures to the skull, the left arm, and the ribs.

Tools themselves can be revealing. Long-handed Neolithic spoons of yew wood preserved in Alpine villages dating to 3000 B.C. have survived; the signs of rubbing on their left side indicate that their users were right-handed. The late Ice Age rope found in the French cave of Lascaux consists of fibers spiraling to the right, and was therefore tressed by a right-hander.

Occasionally one can determine whether stone tools were used in the right hand or the left, and it is even possible to assess how far back this feature can be traced. In stone toolmaking experiments, Nick Toth, a right-hander, held the core (the stone that would become the tool) in his left hand and the hammer stone in his right. As the tool was made, the core was rotated clockwise, and the flakes, removed in sequence, had a little crescent of cortex (the core's outer surface) on the side. Toth's knapping produced 56 percent flakes with the cortex on the right, and 44 percent left-oriented flakes. A left-handed toolmaker would produce the opposite pattern. Toth has applied these criteria to the similarly made pebble tools from a number of early sites (before 1.5 million years) at Koobi Fora, Kenya, probably made by *Homo habilis*. At seven sites he found that 57 percent of the flakes were right-oriented, and 43 percent left, a pattern almost identical to that produced today.

LIVEWORKSHEETS

About 90 percent of modern humans are right-handed: we are the only mammal with a preferential use of one hand. The part of the brain responsible for fine control and movement is located in the left cerebral hemisphere, and the findings above suggest that the human brain was already asymmetrical in its structure and function not long after 2 million years ago. Among Neanderthalers of 70,000–35,000 years ago, Marcellin Boule noted that the La Chapelle-aux-Saints individual had a left hemisphere slightly bigger than the right, and the same was found for brains of specimens from Neanderthal, Gibraltar, and La Quina.

Directions: Now answer the questions.

PARAGRAPH 1

We all know that many more people today are right-handed than left-handed. Can one trace this same pattern far back in prehistory? Much of the evidence about right-hand versus left-hand dominance comes from stencils and prints found in rock shelters in Australia and elsewhere, and in many Ice Age caves in France, Spain, and Tasmania. When a left hand has been stenciled, this implies that the artist was right-handed, and vice versa. Even though the paint was often sprayed on by mouth, one can assume that the dominant hand assisted in the operation. One also has to make the assumption that hands were stenciled palm downward—a left hand stenciled palm upward might of course look as if it were a right hand. Of 158 stencils in the French cave of Gargas, 136 have been identified as left, and only 22 as right; right-handedness was therefore heavily predominant.

1. The phrase "assisted in" in the passage is closest in meaning to
   - Ⓐ initiated
   - Ⓑ dominated
   - Ⓒ helped with
   - Ⓓ set up

2. It can be inferred from paragraph 1 that even when paint was sprayed by mouth to make a hand stencil
   - Ⓐ there was no way to tell which hand was stenciled
   - Ⓑ the stenciled hand was the weaker hand
   - Ⓒ the stenciled hand was the dominant hand
   - Ⓓ artists stenciled more images of the dominant hand than they did of the weak

PARAGRAPH 2

Cave art furnishes other types of evidence of this phenomenon. Most engravings, for example, are best lit from the left, as befits the work of right-handed artists, who generally prefer to have the light source on the left so that the shadow of their hand does not fall on the tip of the engraving tool or brush. In the few cases where an Ice Age figure is depicted holding something, it is mostly, though not always, in the right hand.

3. The word "depicted" in the passage is closest in meaning to
   - Ⓐ identified
   - Ⓑ revealed
   - Ⓒ pictured
   - Ⓓ imagined

LIVEWORKSHEETS

4. Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? Incorrect choices change the meaning in important ways or leave out essential information.

   Ⓐ Right-handed artists could more easily have avoided casting shadows on their work, because engravings in prehistoric caves were lit from the left.
   Ⓑ The tips of engraving tools and brushes indicate that these instruments were used by right-handed artists whose work was lit from the left.
   Ⓒ The best lighting for most engravings suggests that they were made by right-handed people trying to avoid the shadow of their hands interfering with their work.
   Ⓓ Right-handed artists try to avoid having the brush they are using interfere with the light source.

PARAGRAPHS 1 & 2

We all know that many more people today are right-handed than left-handed. Can one trace this same pattern far back in prehistory? Much of the evidence about right-hand versus left-hand dominance comes from stencils and prints found in rock shelters in Australia and elsewhere, and in many Ice Age caves in France, Spain, and Tasmania. When a left hand has been stenciled, this implies that the artist was right-handed, and vice versa. Even though the paint was often sprayed on by mouth, one can assume that the dominant hand assisted in the operation. One also has to make the assumption that hands were stenciled palm downward—a left hand stenciled palm upward might of course look as if it were a right hand. Of 158 stencils in the French cave of Gargas, 136 have been identified as left, and only 22 as right; right-handedness was therefore heavily predominant.

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5. All of the following are mentioned in paragraphs 1 and 2 as evidence of right-handedness in art and artists EXCEPT

   Ⓐ the ideal source of lighting for most engravings
   Ⓑ the fact that a left hand stenciled palm upward might look like a right hand
   Ⓒ the prevalence of outlines of left hands
   Ⓓ figures in prehistoric art holding objects with the right hand

PARAGRAPH 3

Clues to right-handedness can also be found by other methods. Right-handers tend to have longer, stronger, and more muscular bones on the right side, and Marcellin Boule as long ago as 1911 noted the La Chapelle-aux-Saints Neanderthal skeleton had a right upper arm bone that was noticeably stronger than the left. Similar observations have been made on other Neanderthal skeletons such as La Ferrassie I and Neanderthal itself.

LIVEWORKSHEETS

6. According to paragraph 3, the La Chapelle-aux-Saints Neanderthal skeleton can be identified as right-handed because

   Ⓐ other Neanderthal skeletons found nearby are also right-handed
   Ⓑ the right arm bone is stronger than the left
   Ⓒ it is similar to skeletons of La Ferrassie I and Neanderthal
   Ⓓ the right side of the skeleton shows less evidence of fractures

PARAGRAPH 4

Fractures and other cut marks are another source of evidence. Right-handed soldiers tend to be wounded on the left. The skeleton of a 40- or 50-year-old Nabatean warrior, buried 2,000 years ago in the Negev Desert, Israel, had multiple healed fractures to the skull, the left arm, and the ribs.

7. Which of the following statements about fractures and cut marks can be inferred from paragraph 4?

   Ⓐ Fractures and cut marks caused by right-handed soldiers tend to occur on the right side of the injured party's body.
   Ⓑ The right arm sustains more injuries because, as the dominant arm, it is used more actively.
   Ⓒ In most people, the left side of the body is more vulnerable to injury since it is not defended effectively by the dominant arm.
   Ⓓ Fractures and cut marks on fossil humans probably occurred after death.

PARAGRAPH 5

Tools themselves can be revealing. Long-handed Neolithic spoons of yew wood preserved in Alpine villages dating to 3000 B.C. have survived; the signs of rubbing on their left side indicate that their users were right-handed. The late Ice Age rope found in the French cave of Lascaux consists of fibers spiraling to the right, and was therefore tressed by a right-hander.

8. According to paragraph 5, what characteristic of a Neolithic spoon would imply that the spoon's owner was right-handed?

   Ⓐ The direction of the fibers
   Ⓑ Its long handle
   Ⓒ The yew wood it is carved from
   Ⓓ Wear on its left side

LIVEWORKSHEETS

9. In paragraph 5, why does the author mention the Ice Age rope found in the French cave of Lascaux?

Ⓐ As an example of an item on which the marks of wear imply that it was used by a right-handed person

Ⓑ Because tressing is an activity that is easier for a right-handed person than for a left-handed person

Ⓒ Because the cave of Lascaux is the site where researchers have found several prehistoric tools made for right-handed people

Ⓓ As an example of an item whose construction shows that it was made by a right-handed person

PARAGRAPH 6

Occasionally one can determine whether stone tools were used in the right hand or the left, and it is even possible to assess how far back this feature can be traced. In stone toolmaking experiments, Nick Toth, a right-hander, held the core (the stone that would become the tool) in his left hand and the hammer stone in his right. As the tool was made, the core was rotated clockwise, and the flakes, removed in sequence, had a little crescent of cortex (the core's outer surface) on the side. Toth's knapping produced 56 percent flakes with the cortex on the right, and 44 percent left-oriented flakes. A left-handed toolmaker would produce the opposite pattern. Toth has applied these criteria to the similarly made pebble tools from a number of early sites (before 1.5 million years) at Koobi Fora, Kenya, probably made by *Homo habilis*. At seven sites he found that 57 percent of the flakes were right-oriented, and 43 percent left, a pattern almost identical to that produced today.

10. The word "criteria" in the passage is closest in meaning to

Ⓐ standards

Ⓑ findings

Ⓒ ideas

Ⓓ techniques

11. What was the purpose of Toth's toolmaking experiment described in paragraph 6?

Ⓐ To shape tools that could be used by either hand

Ⓑ To produce replicas of early tools for display in museums

Ⓒ To imitate the production of pebble tools from early sites

Ⓓ To determine which hand made the early tools

PARAGRAPH 7

About 90 percent of modern humans are right-handed: we are the only mammal with a preferential use of one hand. The part of the brain responsible for fine control and movement is located in the left cerebral hemisphere, and the findings above suggest that the human brain was already asymmetrical in its structure and function not long after 2 million years ago. Among Neanderthalers of 70,000–35,000 years ago, Marcellin Boule noted that the La Chapelle-aux-Saints individual had a left hemisphere slightly bigger than the right, and the same was found for brains of specimens from Neanderthal, Gibraltar, and La Quina.

LIVEWORKSHEETS

12. What is the author's primary purpose in paragraph 7?

Ⓐ To illustrate the importance of studying the brain
Ⓑ To demonstrate that human beings are the only mammal to desire fine control of movement
Ⓒ To contrast the functions of the two hemispheres of the brain
Ⓓ To demonstrate that right-hand preference has existed for a long time

PARAGRAPH 1

We all know that many more people today are right-handed than left-handed. Can one trace this same pattern far back in prehistory? **(A)** Much of the evidence about right-hand versus left-hand dominance comes from stencils and prints found in rock shelters in Australia and elsewhere, and in many Ice Age caves in France, Spain, and Tasmania. **(B)** When a left hand has been stenciled, this implies that the artist was right-handed, and vice versa. **(C)** Even though the paint was often sprayed on by mouth, one can assume that the dominant hand assisted in the operation. One also has to make the assumption that hands were stenciled palm downward—a left hand stenciled palm upward might of course look as if it were a right hand. **(D)** Of 158 stencils in the French cave of Gargas, 136 have been identified as left, and only 22 as right; right-handedness was therefore heavily predominant.

13. **Directions:** Look at the part of the passage that is displayed above. The letters **(A)**, **(B)**, **(C)**, and **(D)** indicate where the following sentence could be added.

The stencils of hands found in these shelters and caves allow us to draw conclusions about which hand was dominant.

Where would the sentence best fit?

Ⓐ Choice A
Ⓑ Choice B
Ⓒ Choice C
Ⓓ Choice D

14. **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.

LIVEWORKSHEETS

Several categories of evidence indicate that people have always been predominantly right-handed.

-
-
-

Answer Choices

A Stencils of right-handed figures are characteristic of cave art in France, Spain, and Tasmania.

B The amount of prehistoric art created by right-handed artists indicates that left-handed people were in the minority.

C Signs on the skeletal remains of prehistoric figures, including arm-bone size and injury marks, imply that these are the remains of right-handed people.

D Neanderthal skeletons often have longer finger bones in the right hand, which is evidence that the right hand was stronger.

E Instruments such as spoons, ropes, and pebble tools show signs that indicate they were used or constructed by right-handed people.

F Nick Toth, a modern right-handed toolmaker, has shown that prehistoric tools were knapped to fit the right hand.

LIVEWORKSHEETS

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

WATER IN THE DESERT

Rainfall is not completely absent in desert areas, but it is highly variable. An annual rainfall of four inches is often used to define the limits of a desert. The impact of rainfall upon the surface water and groundwater resources of the desert is greatly influenced by landforms. Flats and depressions where water can collect are common features, but they make up only a small part of the landscape.

Arid lands, surprisingly, contain some of the world's largest river systems, such as the Murray-Darling in Australia, the Rio Grande in North America, the Indus in Asia, and the Nile in Africa. These rivers and river systems are known as "exogenous" because their sources lie outside the arid zone. They are vital for sustaining life in some of the driest parts of the world. For centuries, the annual floods of the Nile, Tigris, and Euphrates, for example, have brought fertile silts and water to the inhabitants of their lower valleys. Today, river discharges are increasingly controlled by human intervention, creating a need for international river-basin agreements. The filling of the Ataturk and other dams in Turkey has drastically reduced flows in the Euphrates, with potentially serious consequences for Syria and Iraq.

The flow of exogenous rivers varies with the season. The desert sections of long rivers respond several months after rain has fallen outside the desert, so that peak flows may be in the dry season. This is useful for irrigation, but the high temperatures, low humidities, and different day lengths of the dry season, compared to the normal growing season, can present difficulties with some crops.

Regularly flowing rivers and streams that originate within arid lands are known as "endogenous." These are generally fed by groundwater springs, and many issue from limestone massifs, such as the Atlas Mountains in Morocco. Basaltic rocks also support springs, notably at the Jabal Al-Arab on the Jordan-Syria border. Endogenous rivers often do not reach the sea but drain into inland basins, where the water evaporates or is lost in the ground. Most desert streambeds are normally dry, but they occasionally receive large flows of water and sediment.

Deserts contain large amounts of groundwater when compared to the amounts they hold in surface stores such as lakes and rivers. But only a small fraction of groundwater enters the hydrological cycle—feeding the flows of streams, maintaining lake levels, and being recharged (or refilled) through surface flows and rainwater. In recent years, groundwater has become an increasingly important source of freshwater for desert dwellers. The United Nations Environment Programme and the World Bank have funded attempts to survey the groundwater resources of arid lands and to develop appropriate extraction techniques. Such programs are much needed because in many arid lands there is only a vague idea of the extent of groundwater resources. It is known, however, that the distribution of groundwater is uneven, and that much of it lies at great depths.

LIVEWORKSHEETS

Groundwater is stored in the pore spaces and joints of rocks and unconsolidated (unsolidified) sediments or in the openings widened through fractures and weathering. The water-saturated rock or sediment is known as an "aquifer." Because they are porous, sedimentary rocks, such as sandstones and conglomerates, are important potential sources of groundwater. Large quantities of water may also be stored in limestones when joints and cracks have been enlarged to form cavities. Most limestone and sandstone aquifers are deep and extensive but may contain groundwaters that are not being recharged. Most shallow aquifers in sand and gravel deposits produce lower yields, but they can be rapidly recharged. Some deep aquifers are known as "fossil" waters. The term "fossil" describes water that has been present for several thousand years. These aquifers became saturated more than 10,000 years ago and are no longer being recharged.

Water does not remain immobile in an aquifer but can seep out at springs or leak into other aquifers. The rate of movement may be very slow: in the Indus plain, the movement of saline (salty) groundwaters has still not reached equilibrium after 70 years of being tapped. The mineral content of groundwater normally increases with the depth, but even quite shallow aquifers can be highly saline.

Directions: Now answer the questions.

PARAGRAPH 1

Rainfall is not completely absent in desert areas, but it is highly variable. An annual rainfall of four inches is often used to define the limits of a desert. The impact of rainfall upon the surface water and groundwater resources of the desert is greatly influenced by landforms. Flats and depressions where water can collect are common features, but they make up only a small part of the landscape.

29. Which of the following statements about annual rainfall can be inferred from paragraph 1?
    - (A) Flat desert areas receive more annual rainfall than desert areas with mountains.
    - (B) Areas that receive more than four inches of rain per year are not considered deserts.
    - (C) Many areas receive less than four inches of annual rainfall, but only a few are deserts.
    - (D) Annual rainfall has no impact on the groundwater resources of desert areas.

PARAGRAPH 2

Arid lands, surprisingly, contain some of the world's largest river systems, such as the Murray-Darling in Australia, the Rio Grande in North America, the Indus in Asia, and the Nile in Africa. These rivers and river systems are known as "exogenous" because their sources lie outside the arid zone. They are vital for sustaining life in some of the driest parts of the world. For centuries, the annual floods of the Nile, Tigris, and Euphrates, for example, have brought fertile silts and water to the inhabitants of their lower valleys. Today, river discharges are increasingly controlled by human intervention, creating a need for international river-basin agreements. The filling of the Ataturk and other dams in Turkey has drastically reduced flows in the Euphrates, with potentially serious consequences for Syria and Iraq.

LIVEWORKSHEETS

30. The word "drastically" in the passage is closest in meaning to

Ⓐ obviously
Ⓑ unfortunately
Ⓒ rapidly
Ⓓ severely

31. In paragraph 2, why does the author mention the Ataturk and other dams in Turkey?

Ⓐ To contrast the Euphrates River with other exogenous rivers
Ⓑ To illustrate the technological advances in dam building
Ⓒ To argue that dams should not be built on the Euphrates River
Ⓓ To support the idea that international river-basin agreements are needed

32. According to paragraph 2, which of the following is true of the Nile River?

Ⓐ The Nile's flow in its desert sections is at its lowest during the dry season.
Ⓑ The Nile's sources are located in one of the most arid zones of the world.
Ⓒ The Nile's annual floods bring fertile silts and water to its lower valley.
Ⓓ The Nile's periodic flooding hinders the growth of some crops.

PARAGRAPH 5

Deserts contain large amounts of groundwater when compared to the amounts they hold in surface stores such as lakes and rivers. But only a small fraction of groundwater enters the hydrological cycle—feeding the flows of streams, maintaining lake levels, and being recharged (or refilled) through surface flows and rainwater. In recent years, groundwater has become an increasingly important source of freshwater for desert dwellers. The United Nations Environment Programme and the World Bank have funded attempts to survey the groundwater resources of arid lands and to develop appropriate extraction techniques. Such programs are much needed because in many arid lands there is only a vague idea of the extent of groundwater resources. It is known, however, that the distribution of groundwater is uneven, and that much of it lies at great depths.

33. The word "dwellers" in the passage is closest in meaning to

Ⓐ settlements
Ⓑ farmers
Ⓒ tribes
Ⓓ inhabitants

34. Paragraph 5 supports all of the following statements about the groundwater in deserts EXCEPT:

Ⓐ The groundwater is consistently found just below the surface.
Ⓑ A small part of the groundwater helps maintain lake levels.
Ⓒ Most of the groundwater is not recharged through surface water.
Ⓓ The groundwater is increasingly used as a source of freshwater.

LIVEWORKSHEETS

PARAGRAPH 6

Groundwater is stored in the pore spaces and joints of rocks and unconsolidated (unsolidified) sediments or in the openings widened through fractures and weathering. The water-saturated rock or sediment is known as an "aquifer." Because they are porous, sedimentary rocks, such as sandstones and conglomerates, are important potential sources of groundwater. Large quantities of water may also be stored in limestones when joints and cracks have been enlarged to form cavities. Most limestone and sandstone aquifers are deep and extensive but may contain groundwaters that are not being recharged. Most shallow aquifers in sand and gravel deposits produce lower yields, but they can be rapidly recharged. Some deep aquifers are known as "fossil" waters. The term "fossil" describes water that has been present for several thousand years. These aquifers became saturated more than 10,000 years ago and are no longer being recharged.

35. The word "fractures" in the passage is closest in meaning to

Ⓐ streams
Ⓑ cracks
Ⓒ storms
Ⓓ earthquakes

36. According to paragraph 6, which of the following statements about aquifers in deserts is true?

Ⓐ Water from limestone and sandstone aquifers is generally better to drink than water from sand and gravel aquifers.
Ⓑ Sand and gravel aquifers tend to contain less groundwater than limestone or sandstone aquifers.
Ⓒ Groundwater in deep aquifers is more likely to be recharged than groundwater in shallow aquifers.
Ⓓ Sedimentary rocks, because they are porous, are not capable of storing large amounts of groundwater.

37. According to paragraph 6, the aquifers called "fossil" waters

Ⓐ contain fossils that are thousands of years old
Ⓑ took more than 10,000 years to become saturated with water
Ⓒ have not gained or lost any water for thousands of years
Ⓓ have been collecting water for the past 10,000 years

PARAGRAPH 7

Water does not remain immobile in an aquifer but can seep out at springs or leak into other aquifers. The rate of movement may be very slow: in the Indus plain, the movement of saline (salty) groundwaters has still not reached equilibrium after 70 years of being tapped. The mineral content of groundwater normally increases with the depth, but even quite shallow aquifers can be highly saline.

LIVEWORKSHEETS

38. The word "immobile" in the passage is closest in meaning to

Ⓐ enclosed
Ⓑ permanent
Ⓒ motionless
Ⓓ intact

PARAGRAPHS 1 2 3 4 5 6 & 7

Rainfall is not completely absent in desert areas, but it is highly variable. An annual rainfall of four inches is often used to define the limits of a desert. The impact of rainfall upon the surface water and groundwater resources of the desert is greatly influenced by landforms. Flats and depressions where water can collect are common features, but they make up only a small part of the landscape.

Arid lands, surprisingly, contain some of the world's largest river systems, such as the Murray-Darling in Australia, the Rio Grande in North America, the Indus in Asia, and the Nile in Africa. These rivers and river systems are known as "exogenous" because their sources lie outside the arid zone. They are vital for sustaining life in some of the driest parts of the world. For centuries, the annual floods of the Nile, Tigris, and Euphrates, for example, have brought fertile silts and water to the inhabitants of their lower valleys. Today, river discharges are increasingly controlled by human intervention, creating a need for international river-basin agreements. The filling of the Ataturk and other dams in Turkey has drastically reduced flows in the Euphrates, with potentially serious consequences for Syria and Iraq.

The flow of exogenous rivers varies with the season. The desert sections of long rivers respond several months after rain has fallen outside the desert, so that peak flows may be in the dry season. This is useful for irrigation, but the high temperatures, low humidities, and different day lengths of the dry season, compared to the normal growing season, can present difficulties with some crops.

Regularly flowing rivers and streams that originate within arid lands are known as "endogenous." These are generally fed by groundwater springs, and many issue from limestone massifs, such as the Atlas Mountains in Morocco. Basaltic rocks also support springs, notably at the Jabal Al-Arab on the Jordan-Syria border. Endogenous rivers often do not reach the sea but drain into inland basins, where the water evaporates or is lost in the ground. Most desert streambeds are normally dry, but they occasionally receive large flows of water and sediment.

Deserts contain large amounts of groundwater when compared to the amounts they hold in surface stores such as lakes and rivers. But only a small fraction of groundwater enters the hydrological cycle—feeding the flows of streams, maintaining lake levels, and being recharged (or refilled) through surface flows and rainwater. In recent years, groundwater has become an increasingly important source of freshwater for desert dwellers. The United Nations Environment Programme and the World Bank have funded attempts to survey the groundwater resources of arid lands and to develop appropriate extraction techniques. Such programs are much needed because in many arid lands there is only a vague idea of the extent of groundwater resources. It is known, however, that the distribution of groundwater is uneven, and that much of it lies at great depths.

LIVEWORKSHEETS

Groundwater is stored in the pore spaces and joints of rocks and unconsolidated (unsolidified) sediments or in the openings widened through fractures and weathering. The water-saturated rock or sediment is known as an "aquifer." Because they are porous, sedimentary rocks, such as sandstones and conglomerates, are important potential sources of groundwater. Large quantities of water may also be stored in limestones when joints and cracks have been enlarged to form cavities. Most limestone and sandstone aquifers are deep and extensive but may contain groundwaters that are not being recharged. Most shallow aquifers in sand and gravel deposits produce lower yields, but they can be rapidly recharged. Some deep aquifers are known as "fossil" waters. The term "fossil" describes water that has been present for several thousand years. These aquifers became saturated more than 10,000 years ago and are no longer being recharged.

Water does not remain immobile in an aquifer but can seep out at springs or leak into other aquifers. The rate of movement may be very slow: in the Indus plain, the movement of saline (salty) groundwaters has still not reached equilibrium after 70 years of being tapped. The mineral content of groundwater normally increases with the depth, but even quite shallow aquifers can be highly saline.

39. The passage supports which of the following statements about water in the desert?

Ⓐ The most visible forms of water are not the most widespread forms of water in the desert.

Ⓑ Groundwater in the desert cannot become a source of drinking water but can be used for irrigation.

Ⓒ Most of the water in the desert is contained in shallow aquifers that are being rapidly recharged.

Ⓓ Desert areas that lack endogenous or exogenous rivers and streams cannot support life.

PARAGRAPHS 4 & 5

Regularly flowing rivers and streams that originate within arid lands are known as "endogenous." These are generally fed by groundwater springs, and many issue from limestone massifs, such as the Atlas Mountains in Morocco. Basaltic rocks also support springs, notably at the Jabal Al-Arab on the Jordan-Syria border. **(A)** Endogenous rivers often do not reach the sea but drain into inland basins, where the water evaporates or is lost in the ground. **(B)** Most desert streambeds are normally dry, but they occasionally receive large flows of water and sediment. **(C)**

Deserts contain large amounts of groundwater when compared to the amounts they hold in surface stores such as lakes and rivers. **(D)** But only a small fraction of groundwater enters the hydrological cycle—feeding the flows of streams, maintaining lake levels, and being recharged (or refilled) through surface flows and rainwater. In recent years, groundwater has become an increasingly important source of freshwater for desert dwellers. The United Nations Environment Programme and the World Bank have funded attempts to survey the groundwater resources of arid lands and to develop appropriate extraction techniques. Such programs are much needed because in many arid lands there is only a vague idea of the extent of groundwater resources. It is known, however, that the distribution of groundwater is uneven, and that much of it lies at great depths.

LIVEWORKSHEETS

40. **Directions:** Look at the part of the passage that is displayed above. The letters **(A)**, **(B)**, **(C)**, and **(D)** indicate where the following sentence could be added.

These sudden floods provide important water supplies but can also be highly destructive.

Where would the sentence best fit?

Ⓐ Choice A
Ⓑ Choice B
Ⓒ Choice C
Ⓓ Choice D

41. **Directions:** Select from the seven sentences below, the two sentences that correctly characterize endogenous rivers and the three sentences that correctly characterize exogenous rivers. Write your answer choices in the appropriate column of the table. You can either write the letter of your answer choice or you can copy the sentence. Two of the sentences will NOT be used.

Endogenous Rivers	Exogenous Rivers
•	•
•	•
	•

LIVEWORKSHEETS

Answer Choices

A Their water generally comes from groundwater springs.
B Their water is saltier than the water of most other rivers.
C They include some of the world's largest rivers.
D They originate outside the desert.
E They often drain into inland basins and do not reach the sea.
F They contain too much silt to be useful for irrigation.
G Their water flow generally varies with the season of the year.

LIVEWORKSHEETS