

English Language Arts

LANGUAGE AND LITERATURE: SESSION 1

DIRECTIONS

This session contains three reading selections with sixteen multiple-choice questions and two open-response questions. Mark your answers to these questions in the spaces provided in your Student Answer Booklet.

When one is faced with difficult challenges, focusing and remaining calm are absolutely essential. On the night of April 28, 1958, Air Force Lieutenant James Edward Obenauf found himself in a life-and-death situation. Read the article below and use information from it to answer the questions that follow.

How Obie Won His Medal

- 1 At 32,000 feet in the dark Texas skies, Air Force Lieutenant James Edward Obenauf made a split-second, life-and-death decision. Around him, his six-jet B-47 seemed to be falling apart: the right outboard engine was boiling with flame, scattering red-hot pieces of steel across the wing and fuselage. The navigator had bailed out of the nose compartment. So had the pilot. Copilot Obenauf, squeezing along the catwalk toward the nose, was ready to jump too. He looked down and froze: there, lying unconscious, his chute pack gone, was the navigator-instructor, Major Joseph B. Maxwell.
- 2 As the wind roared through the open trap door, “Obie” Obenauf hurriedly searched for Maxwell’s parachute. His body was weakened from lack of oxygen. He could not find the chute. He looked down at Maxwell again, felt an awful, strong urge to leave him. “*Gee, I got my own battle to fight.*” Then Obie, just turned twenty-three, five years out of high school, father of a ten-month-old boy, father-to-be of a second child, turned around and crawled back into his rear cockpit and took control of the airplane on the chance that he might be able to fly it to safety.
- 3 He hooked his mask into the life-saving oxygen system, dove the bomber toward a lower altitude so Maxwell would not die of anoxia.¹ The Plexiglas canopy had been jettisoned² in the first attempt at bail-out, so, as the plane knifed ahead at 400 knots, Obie’s face was seared by the sharp, –30° wind, by whipped dust, bits of wire and insulation. His eyelids rolled back in the fierce air torrent. He dropped his amber-tinted visor over his tearing eyes—but he could not read his instruments again without lifting it. His gloved hands froze to near helplessness. Under his seat was the armed, unexploded powder charge that had failed to fire his seat out of the cockpit in the early bail-out try. “*You’re so numb, I don’t think there’s any fear at all. You’re just numb.*”
- 4 Into the blood-stinging wind he flew. He called his “mayday!”³ SOS and got an instant response, first from an Air Force base at Altus, Oklahoma, two hundred miles away, then from another airborne B-47. Altus gave Obie a compass heading to come in on. His panel lights grew dimmer, his eyes burned like hot lead. He could see the compass needle but not the numbers. He turned his plane

¹ *anoxia* — absence of oxygen

² *jettison* — to cast off

³ “*mayday!*” — an international signal for help, used by ships and aircraft in distress

to bring the needle toward the heading he wanted: his own field, the Strategic Air Command's Dyess Air Force Base near Abilene, 150 miles away.

5 The night now hung with bad weather: ceiling, 1500 feet; visibility, five miles; rain. Maxwell woke up, groggily plugged in his headset. Obenauf cut his speed to 200 knots to reduce the buffeting of the plane and the charge of the biting wind. *"I think I said about fifty prayers. I thought about everything—the things I used to do when I was a kid, like playing ball, and my family. They were the ones I was really fighting for."*

6 On the ground, a mighty communications system sparked into action. CAA⁴ stations, military bases, and air line offices monitored Obie's radio. In the dimly lit control room at Fat Chance, a Texas-based air-defense radar station, trackers picked up Obie's blip on their screen. Like a tiny translucent pearl on green glass, the blip moved toward its target, rolling to one side, then to another, now erratic, now steady, minute by minute, guided all the while by Fat Chance.

7 In the Dyess control tower Obie's boss, Lieutenant Colonel Anthony Perna, got on the mike.

8 Perna: *"You can make it. No sweat. The firefighters are standing by just in case."*

9 Obie: *"Colonel, I'm probably the only copilot who has soloed a B-47."*

10 Then came the letdown to the field. It was a few minutes past midnight—two hours since the trouble had begun—when Obie turned into his final approach. He was too high, too far to the

left of the runway. *"I didn't have time to think. The GCA station was telling me to go around.⁵ The tower told me to go around—everybody in the world told me to go around. I didn't say one word. I just kept coming in. I felt I had used every bit of energy I ever had. I didn't have enough visibility. I couldn't make out anything. I don't think that if I had to go around we would have made it. Things were getting worse, instead of better. I could smell smoke in the cockpit."*

11 Suddenly Obie saw two rows of lights. He banked sharply to the right, lined his plane up with the runway, and with power on poured straight for it. Firefighting crews, an ambulance, staff cars, and red-blinking emergency trucks shrieked down the runway in pursuit. Obie neatly kissed his plane down. *"I flew it into the ground. I wasn't strapped to the seat. I was just sitting. I never made a better landing in my life. I couldn't make a better one in a hundred thousand years."* When the plane stopped, he jumped out. Shocked by momentary blindness, he ran and ran until they stopped him.

12 Less than thirty-six hours later, about eight hundred Air Force men and their families crowded into the Dyess base theater. Lieutenant James Edward Obenauf, twenty-three, one eye bandaged and the other kept closed against the bright lights, stepped out on the platform with his wife. He had performed far above and beyond the call of duty. And General Tom Power, boss of the Strategic Air Command, pinned a medal on Obie's chest. It was the Distinguished Flying Cross.

⁴ CAA — Civil Aeronautics Authority

⁵ GCA . . . around. — The ground-controlled approach station (GCA) observes a plane by radar and gives landing directions to the pilot over the radio. The GCA was telling Obie to circle the field.

- 1 This article would **most likely** appear in which of the following?
- A. an encyclopedia
 - B. a collection of essays
 - C. an Air Force flight manual
 - D. a book about heroic deeds
- 2 Reread paragraphs 1 and 2. Why did Obie decide not to jump from the B-47?
- A. He did not want to leave Major Maxwell.
 - B. His chute pack was gone.
 - C. His powder charge did not work correctly.
 - D. He was afraid.
- 3 What does the description of Obie in paragraph 3 reveal about the overall situation?
- A. the difficulty of diving the plane
 - B. the trouble he had trying to breathe
 - C. the intensity of the harsh conditions
 - D. the condition of his air supply
- 4 According to the article, what was the **main** reason Obie had to fly the bomber at a lower altitude?
- A. The airplane would be easier to fly.
 - B. Major Maxwell needed oxygen.
 - C. The outside air would be warmer.
 - D. Obie needed to see the ground for navigation.

- 5 What does the description in paragraph 6 tell the reader about Obie's piloting of the plane?
- A. Obie picked up speed as he got close to the base.
 - B. Obie talked with several radar operators.
 - C. Obie stayed confident throughout the flight.
 - D. Obie had difficulty keeping the plane under control.
- 6 Based on the article, what did Obie's actions in the cockpit show about him?
- A. his determination
 - B. his obedience
 - C. his confusion
 - D. his thrill-seeking nature
- 7 In paragraph 2, what is the purpose of the italicized statement?
- A. to indicate Obie's thoughts
 - B. to indicate a conversation with Major Maxwell
 - C. to show the motto of Obie's squadron
 - D. to show a response from the Strategic Air Command
- 8 What is the meaning of the word *erratic* as it is used in paragraph 6?
- A. ordinary
 - B. unsteady
 - C. weak
 - D. flowing

Write your answer to open-response question 9 in the space provided in your Student Answer Booklet.

- 9 From the moment his B-47 started to fall apart, Obie faced many challenges. Choose **two** challenges that Obie faced and explain how he overcame them. Use relevant and specific information from the article to support your answer.

To be heir to the throne, one must have royal blood. In this excerpt, Arthur, who is being raised by Sir Ector, is of royal ancestry but does not know it. Find out how Arthur becomes king in this exciting story of nobles and knights. Read the excerpt and answer the questions that follow.

King Arthur: The Stuff of Heroes

retold by Maurice Saxby

The sword in the stone

- 1 When King Uther died the people believed that he had left no son to rule because the birth of Arthur had been kept secret, even though many years before Merlin had prophesied that after Uther there would come a far greater king than he, his son Arthur.
- 2 Only Merlin knew the secret of Arthur's birth and that he was destined to become king. Not even Sir Ector knew of the boy's true parentage but brought him up as his own son, proud and pleased as the boy grew tall and handsome and accomplished in all knightly tasks and chivalrous pursuits.
- 3 But because no one knew of Arthur's whereabouts, even though it was rumoured that the King had named an heir, many powerful lords and nobles began to fight among themselves for the crown, each believing he should be ruler of England. Civil war seemed almost inevitable. While the nobles fought among themselves great evils fell upon the land and invaders came from across the sea to pillage and plunder.
- 4 So the Archbishop, advised by Merlin, sent for all the lords and gentlemen of arms to come to London by Christmas for a tourney. "Come to London, and God will show us who is the true and rightful king," he decreed.
- 5 When the nobles assembled in London and attended the great church there, they saw in the churchyard, against the high altar, a huge stone. Into the middle of this stone was wedged an anvil of steel a foot high, and in this anvil was embedded a naked sword. Engraved on the sword in letters of gold were the words, "Whoso pulleth this sword out of this stone and anvil, is rightly born king of Britain."
- 6 Immediately many of the nobles and knights of the realm who wished to be king tried to draw the sword, but none could even stir it. So the Archbishop decreed that every man who so wished should be allowed to try to win the sword, but that ten men of good repute should keep watch by it.
- 7 On New Year's Day, when the service was over, the barons and knights rode into the field, some to joust and some to tourney. It so happened that Sir Ector rode to the joust and with him his son, Sir Kay, and young Arthur as his squire. As they rode Sir Kay discovered that he had left his sword at his father's lodging and he asked Arthur to fetch it for him.

- 8 Arthur hastened to do as Sir Kay had requested but when he arrived at the inn, the door was locked and everyone had gone to the jousting. Arthur was angry and said to himself, "I will ride to the churchyard and take the sword that is wedged in the anvil, for my brother, Sir Kay, must not be without a sword today."
- 9 When he came to the churchyard, young Arthur dismounted from his horse and went to the tent where the knights were to be keeping watch. But they were all away at the jousting. So he strode to where the sword gleamed in the sunlight, took it by the handle and gave it a great pull. The sword came away immediately. Then Arthur mounted his horse, rode back to Sir Kay and delivered him the sword.
- 10 As soon as Sir Kay saw the sword, he knew which it was and rode immediately to his father crying, "Sir, here is the sword out of the stone. Therefore I must be king of Britain."
- 11 Sir Ector immediately hurried Sir Kay and Arthur back to the churchyard and there he demanded that Sir Kay swear on a book how he came by the sword.
- 12 "Sir," replied Sir Kay, "by my brother Arthur, for he brought the sword to me."
- 13 "How came you by this sword?" Sir Ector challenged Arthur.
- 14 "I drew it from the anvil in the stone so that Sir Kay should have a sword."
- 15 "Were you seen by any man?"
- 16 "No my lord, there was no one to see me."
- 17 "Then," said Sir Ector, "I understand you must be king of this land. But first, let me see if I can return the sword to the stone, as it was before, and you pull it out again."
- 18 "That is no difficult matter," said Arthur. Thereupon Sir Ector thrust the sword back into the stone.
- 19 "Now try to withdraw the sword," said Sir Ector to his son, Sir Kay. But Sir Kay could not.
- 20 The old man turned to Arthur. "Now it is your turn."
- 21 So Arthur tried, and pulled the sword out easily. Upon that, Sir Ector and Sir Kay kneeled before the boy.
- 22 "My lord and my king," said Sir Ector. "You are no son of mine, but now I know whose son you are!"
- 23 Then they went to the Archbishop and told him how the sword had been won and by whom. Even then many of the barons and knights were angry and tried again to draw the sword from the stone. But none succeeded. Only Arthur was able to free the sword.
- 24 Thereupon the people of the land cried out, "We will have Arthur for our king and let there be no more delay."
- 25 It was only then that Merlin came forward to tell the lords and barons that their chosen king was the true son of their beloved Uther Pendragon and that Sir Ector had raised the lad in trust for the King. Although Arthur was sad to lose Sir Ector as a father, he knew that he would have him as a friend and counsellor.

- 26 So he laid the wondrous sword from the stone across his outstretched hands and placed it upon the altar of the church. He swore to be a true king as his father had wished; to stand always for justice, truth and honour and to rule his people wisely. That day the Archbishop made Arthur a knight, then crowned him king of Britain; and all the barons, knights and squires paid homage to their new king, swearing to serve and obey him in all things.
- 27 So began a long and splendid reign filled with wonderful deeds and exploits, the like of which have never again been heard, in Britain or in any land.

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- 10 Which of the following characteristics of a hero's tale is **not** present in this excerpt?
- A. a mystery birth
 - B. a wise prophet
 - C. a superhuman feat
 - D. a magical potion
- 11 Why is Arthur so eager to help Sir Kay?
- A. Sir Kay has helped him.
 - B. Sir Kay is Arthur's cousin.
 - C. The Archbishop told Arthur to help Sir Kay.
 - D. Sir Ector raised Arthur and Sir Kay as brothers.

- 12 What is ironic about Arthur's pulling the sword from the stone?
- A. The former king saw him do it.
 - B. Sir Kay had ordered him to try.
 - C. His only thought was to deliver the sword to Sir Kay.
 - D. He did it without any encouragement from Merlin.
- 13 Reread paragraph 1. What does the word *prophesied* mean?
- A. estimated
 - B. predicted
 - C. considered
 - D. preached

The title of the poem Lineage refers to our connections to our ancestors. Read this poem and notice how the speaker compares herself to her grandmothers. Answer the questions that follow the poem.

LINEAGE*

My grandmothers were strong.
They followed plows and bent to toil.
They moved through fields sowing seed.
They touched earth and grain grew.
5 They were full of sturdiness and singing.
My grandmothers were strong.

My grandmothers are full of memories
Smelling of soap and onions and wet clay
With veins rolling roughly over quick hands
10 They have many clean words to say.
My grandmothers were strong.
Why am I not as they?

— *Margaret Walker*

* *lineage* — refers to one's ancestors or line of descent

From THIS IS MY CENTURY: New and Collected Poems by Margaret Walker. Copyright © 1989 by Margaret Walker Alexander. Used by permission of the University of Georgia Press, Athens, Georgia.

- 14 Reread stanza 1. What feeling is the speaker expressing about her grandmothers?
- A. anger
 - B. regret
 - C. pride
 - D. joy
- 15 What is the **main** purpose of stanza 1?
- A. to explain the grandmothers' jobs
 - B. to present the grandmothers' strengths
 - C. to show how difficult it was to work in the fields
 - D. to tell about a time when life was harder than today
- 16 In line 10 of the poem, what does the phrase "clean words" **most likely** suggest?
- A. The grandmothers often argued with each other.
 - B. The grandmothers were honest in their communication.
 - C. The grandmothers talked about their household chores.
 - D. The grandmothers did not believe in criticizing their children.
- 17 What is the effect of the speaker's question at the end of the poem?
- A. The speaker is stressing her confusion about her grandmothers' strengths.
 - B. The speaker is revealing one of her strengths.
 - C. The speaker is showing she does not understand her grandmothers.
 - D. The speaker is emphasizing that she is different from her grandmothers.

Write your answer to open-response question 18 in the space provided in your Student Answer Booklet.

- 18** The speaker states “my grandmothers were strong” three times in the poem. Explain how the imagery in the poem supports that statement. Use relevant and specific examples from the poem to support your response.

English Language Arts

LANGUAGE AND LITERATURE: SESSION 2

DIRECTIONS

This session contains one reading selection with eight multiple-choice questions and one open-response question. Mark your answers to these questions in the spaces provided in your Student Answer Booklet.

To escape seal hunters in the early 1800s, Indians of Ghalas board a ship to leave the Island of the Blue Dolphins. Twelve-year-old Karana is left on the island to survive alone. In this excerpt Karana has wounded a wild dog in protecting herself. Read the excerpt from the novel Island of the Blue Dolphins and answer the questions that follow.

Island of the Blue Dolphins

by Scott O'Dell

- 1 There were no tracks after the rain, but I followed the trail to the pile of rocks where I had seen them before. On the far side of the rocks I found the big gray dog. He had the broken arrow in his chest and he was lying with one of his legs under him.
- 2 He was about ten paces from me so I could see him clearly. I was sure that he was dead, but I lifted the spear and took good aim at him. Just as I was about to throw the spear, he raised his head a little from the earth and then let it drop.
- 3 This surprised me greatly and I stood there for a while not knowing what to do, whether to use the spear or my bow. I was used to animals playing dead until they suddenly turned on you or ran away.
- 4 The spear was the better of the two weapons at this distance, but I could not use it as well as the other, so I climbed onto the rocks where I could see him if he ran. I placed my feet carefully. I had a second arrow ready should I need it. I fitted an arrow and pulled back the string, aiming at his head.
- 5 Why I did not send the arrow I cannot say. I stood on the rock with the bow pulled back and my hand would not let it go. The big dog lay there and did not move and this may be the reason. If he had gotten up I would have killed him. I stood there for a long time looking down at him and then I climbed off the rocks.
- 6 He did not move when I went up to him, nor could I see him breathing until I was very close. The head of the arrow was in his chest and the broken shaft was covered with blood. The thick fur around his neck was matted from the rain.
- 7 I do not think that he knew I was picking him up, for his body was limp, as if he were dead. He was very heavy and the only way I could lift him was by kneeling and putting his legs around my shoulders.
- 8 In this manner, stopping to rest when I was tired, I carried him to the headland.
- 9 I could not get through the opening under the fence, so I cut the bindings and lifted out two of the whale ribs and thus took him into the house. He did not look at me or raise his head when I laid him on the floor, but his mouth was open and he was breathing.

- 10 The arrow had a small point, which was fortunate, and came out easily though it had gone deep. He did not move while I did this, nor afterwards as I cleaned the wound with a peeled stick from a coral bush. This bush has poisonous berries, yet its wood often heals wounds that nothing else will.
- 11 I had not gathered food for many days and the baskets were empty, so I left water for the dog and, after mending the fence, went down to the sea. I had no thought that he would live and I did not care.
- 12 All day I was among the rocks gathering shellfish and only once did I think of the wounded dog, my enemy, lying there in the house, and then to wonder why I had not killed him.
- 13 He was still alive when I got back, though he had not moved from the place where I had left him. Again I cleaned the wound with a coral twig. I then lifted his head and put water in his mouth, which he swallowed. This was the first time that he had looked at me since the time I had found him on the trail. His eyes were sunken and they looked out at me from far back in his head.
- 14 Before I went to sleep I gave him more water. In the morning I left food for him when I went down to the sea, and when I came home he had eaten it. He was lying in the corner, watching me. While I made a fire and cooked my supper, he watched me. His yellow eyes followed me wherever I moved.
- 15 That night I slept on the rock, for I was afraid of him, and at dawn as I went out I left the hole under the fence open so he could go. But he was there when I got back, lying in the sun with his head on his paws. I had speared two fish, which I cooked for my supper. Since he was very thin, I gave him one of them, and after he had eaten it he came over and lay down by the fire, watching me with his yellow eyes that were very narrow and slanted up at the corners.
- 16 Four nights I slept on the rock, and every morning I left the hole under the fence open so he could leave. Each day I speared a fish for him and when I got home he was always at the fence waiting for it. He would not take the fish from me so I had to put it on the ground. Once I held out my hand to him, but at this he backed away and showed his teeth.
- 17 On the fourth day when I came back from the rocks early he was not there at the fence waiting. A strange feeling came over me. Always before when I returned, I had hoped that he would be gone. But now as I crawled under the fence I did not feel the same.
- 18 I called out, "Dog, Dog," for I had no other name for him.
- 19 I ran toward the house, calling it. He was inside. He was just getting to his feet, stretching himself and yawning. He looked first at the fish I carried and then at me and moved his tail.
- 20 That night I stayed in the house. Before I fell asleep I thought of a name for him, for I could not call him Dog. The name I thought of was Rontu, which means in our language Fox Eyes.

- 19 What is the **main** action that takes place in paragraphs 2–4 of the excerpt?
- A. The girl prepares to kill the dog.
 - B. The girl discovers that the dog is alive.
 - C. The girl watches the injured dog.
 - D. The girl climbs on the rocks for a better view.
- 20 In paragraph 12, what is the effect of including the words “my enemy”?
- A. It indicates that there is another person on the island.
 - B. It helps the reader sympathize with the dog.
 - C. It reminds the reader that the dog is wounded.
 - D. It clarifies the girl’s attitude toward the dog.
- 21 Which sentence from the excerpt supports the idea that the dog is **not** able to put complete trust in the girl?
- A. “But he was there when I got back, lying in the sun with his head on his paws.”
 - B. “He looked first at the fish I carried and then at me and moved his tail.”
 - C. “Once I held out my hand to him, but at this he backed away and showed his teeth.”
 - D. “In the morning I left food for him when I went down to the sea, and when I came home he had eaten it.”
- 22 Which sentence from paragraphs 17 and 18 **first** indicates that the girl is concerned that the dog is gone?
- A. “On the fourth day when I came back from the rocks early he was not there at the fence waiting.”
 - B. “A strange feeling came over me.”
 - C. “Always before when I returned, I had hoped that he would be gone.”
 - D. “I called out, ‘Dog, Dog,’ for I had no other name for him.”

- 23 What does the girl do that shows she finally trusts the dog?
- A. She tries to feed him.
 - B. She sleeps in the house with him.
 - C. She calls out for him.
 - D. She spears a fish for him.
- 24 Which of the dog's actions suggests his acceptance of the girl as a companion?
- A. showing his teeth as she feeds him
 - B. watching her while she cooks supper
 - C. moving his tail when he sees her
 - D. refusing to take fish from her hand

- 25 What does the girl's act of naming the dog suggest?
- A. She acknowledges the dog is worthy of friendship.
 - B. She thinks he is dangerous and cunning like a fox.
 - C. She wants the dog to remember that she saved his life.
 - D. She knows the dog will stay with her if she gives him a name.

Read the sentence from paragraph 10 in the box below.

He did not move while I did this, nor afterwards as I cleaned the wound with a peeled stick from a coral bush.

- 26 What part of speech is the word *peeled* as it is used in the sentence?
- A. verb
 - B. noun
 - C. adverb
 - D. adjective

Write your answer to open-response question 27 in the space provided in your Student Answer Booklet.

- 27** Describe how the girl's feelings and actions toward the dog change throughout the excerpt. Use relevant and specific information from the beginning, middle, and end of the excerpt to support your answer.

English Language Arts

LANGUAGE AND LITERATURE: SESSION 3

DIRECTIONS

This session contains two reading selections with twelve multiple-choice questions and one open-response question. Mark your answers to these questions in the spaces provided in your Student Answer Booklet.

Have you ever wondered how some fish can live in icy cold waters without freezing? Scientists have made recent discoveries that help explain how the Antarctic cod is able to live in the freezing waters off the coast of Antarctica. Read this article about an amazing fish and answer the questions that follow.

A Cool Story About an

ANTARCTIC FISH

by Jack Myers
Senior Science Editor

- T**he key word is ice.
- That describes the ocean around the edges of Antarctica. Far from land, a giant shelf of ice meets the ocean. At the underside of the shelf, a jumble of crushed ice and slush provides a home to a world of algae and tiny animals. In that icy soup there also lives a small fish, the Antarctic cod.
- For forty years scientists have been curious about that fish. How does it live where most fish would freeze to death? It must have some secret. The Antarctic is not a comfortable place to work, and research has been slow in solving the problem. Now it seems we have an answer.
- Research was begun by cutting holes in the ice and catching the fish with hook and line. Scientists studied the fish's blood and measured its freezing point,

the temperature at which ice crystals just begin to form.

- The fish were taken from seawater that had a temperature of 28.6 degrees Fahrenheit (F) and many ice crystals floating in it. The blood did not begin to freeze until its temperature was lowered to 28.3 degrees F. That small difference is enough that the fish can live at the freezing temperature of the ice-salt mixture.
- The scientists' next research job was clear: Find out what kind of stuff in the fish's blood kept it from freezing. Their search led to some really weird stuff made up of a protein never before seen in the blood of a fish. When this stuff was removed, the blood froze at seawater temperature. When it was put back, the blood again had its antifreeze character and a lowered freezing point.

Making Ice

- Before deciding what to do next, the scientists thought about what happens to water when it freezes. That process takes place molecule by molecule. Water molecules easily moving around as a liquid suddenly become locked into position in an ice crystal.
- In pure water, freezing begins to happen when it is cooled to 32.0 degrees F, which is its freezing point. Anything dissolved in the water is made up of atoms or molecules, which get in the way of water molecules. By crowding in, they make it harder for water molecules to lock together into an ice crystal. That lowers the freezing point.
- Lots of substances can be used as antifreezes. *Ethylene glycol* works well in the radiators of

automobile engines. Another antifreeze so cheap that we use it in winter on roads and sidewalks is plain old table salt. Seawater has enough salt to lower its freezing point to 28.6 degrees F.

10 Melting is just the opposite of freezing. It happens when water molecules get warm enough and zippy enough to bounce out of ice crystals and move around as liquid water. The lowest temperature at which that begins to happen is the melting point.

11 For water and for solutions of most substances, scientists take the melting point and freezing point to be the same temperature. Only a tiny temperature change determines whether ice crystals are forming or melting.

Super Antifreeze

12 It was easy to find out that the new fish protein must be very different from any known antifreeze. Its molecules are about a hundred times more effective than salt molecules in lowering the temperature needed to form ice crystals. And the crystals that form take on oddball shapes.

13 The strangest thing about this new protein antifreeze is that it lowers the freezing point but not the melting point. Blood that has the antifreeze in it will not freeze above 28.3 degrees. Once that same blood is frozen, it will not begin to melt at 28.3 degrees. The blood will not melt until it goes all the way up to 32 degrees again. This is a big surprise, and means the stuff works in some way that scientists don't yet understand.

14 Study of the molecular structure of the new fish antifreeze showed that it is an unusual kind of protein. It has many small sugar molecules held in special positions within each big protein molecule. Because of its sugar content, it is called a *glycoprotein*. So it has come to be called the antifreeze fish glycoprotein, or *AFGP*.

15 There is one more part to the story of AFGP. How does it work to be such a powerful antifreeze?

16 We don't yet have a complete explanation, but we do have a pretty good idea. Chemists have learned to tell a lot about the behavior of a molecule just from its structure. Their idea is that the sugar groups are all on one side of the molecule.

17 Sugars are so sticky to water molecules that they are called "water-loving" groups. They stick to the water molecules at the surface of an ice crystal.

18 The other side of the AFGP molecule has only "water-hating" groups. They tend to stay away from water, to stay dry. That gives the ice crystal a dry surface and makes it hard for water molecules to add onto an ice crystal.

19 You can see that it's easy to think of AFGP preventing the growth of ice crystals and the freezing of water. Of course this is just an idea yet to be proven. So there is still something more to be learned from fish that swim among ice crystals.

- 28 What is the **main** purpose of this article?
- A. to persuade readers to support scientific study of Antarctic fish
 - B. to entertain readers with a funny story about an unusual fish
 - C. to explain how the Antarctic cod can live in freezing waters
 - D. to describe what it is like to live in a freezing cold ocean
- 29 According to the article, why have scientists waited so long to study the Antarctic cod?
- A. Not enough scientists have been curious about the fish.
 - B. Algae and tiny animals clog the slush.
 - C. It is not easy to work in the Antarctic.
 - D. The reason for the delay remains a secret.
- 30 What is the **main** purpose of paragraph 2?
- A. to define important terms that will be used throughout the article
 - B. to describe the setting and the main topic of the article
 - C. to capture the interest of the reader with simple, direct language
 - D. to introduce the main characters and describe a problem that will be explored
- 31 According to the article, what keeps the Antarctic cod's blood from freezing?
- A. a layer of fat in its body
 - B. a salt mixture in its blood
 - C. ice crystals around its body
 - D. a protein in its blood

- 32 According to paragraphs 8 and 9, why is the freezing point of seawater **lower** than the freezing point of pure water?
- A. Seawater contains several kinds of antifreeze.
 - B. Seawater particles stick together into ice crystals.
 - C. Seawater contains ethylene glycol.
 - D. Seawater contains a great deal of salt.
- 33 According to the article, how do antifreezes work?
- A. by sticking to water molecules
 - B. by raising the temperature of water to 32 degrees F
 - C. by making it more difficult for water molecules to attach to each other
 - D. by dissolving ice crystals as they form
- 34 According to paragraph 14, what is the relationship between sugar and protein molecules in the fish antifreeze?
- A. The sugar and protein molecules repel one another.
 - B. Large protein molecules are contained in a small sugar molecule.
 - C. Small protein molecules are contained in a large sugar molecule.
 - D. Small sugar molecules are contained in a large protein molecule.
- 35 Which words in paragraph 14 give the meaning of the prefix *glyco-* in the word *glycoprotein*?
- A. “sugar content”
 - B. “unusual kind”
 - C. “special positions”
 - D. “molecular structure”

Write your answer to open-response question 36 in the space provided in your Student Answer Booklet.

- 36** The author begins the article by writing, “The key word is ice.” Explain why the key word really **is** ice. Use relevant and specific information from the article to support your answer.

During World War II, the German Nazis committed atrocities against Jews and other people. Many Jews went into hiding to escape persecution. The play, The Diary of Anne Frank, is based on Anne's diary written while she and her family were in hiding with their friends the Van Daans. In this scene, both families have moved into a small apartment hidden above an office, and Anne comes to understand what it means to be "in hiding." Read the scene and answer the questions that follow.

The Diary of Anne Frank

by FRANCES GOODRICH AND ALBERT HACKETT

Students read a selection titled "The Diary of Anne Frank" and then answered questions 37 through 40 that follow on the next page of this document.

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From THE DIARY OF ANNE FRANK (PLAY) by Frances Goodrich and Albert Hackett, copyright © 1956 by Albert Hackett, Frances Goodrich Hackett and Otto Frank. Used by permission of Random House, Inc.

- 37 At what point does Anne begin to understand the seriousness of the situation?
- A. when her father gives Anne her first diary
 - B. when she has to give Peter milk for Mouschi
 - C. when her father keeps her from going downstairs
 - D. when she pretends she is living in a boarding house
- 38 What is the **main** message Mr. Frank gives Anne in lines 44–66?
- A. Her new life will be like living in a prison.
 - B. Her new life will be difficult, but will have advantages.
 - C. She will learn many new things from her love of reading.
 - D. She will lead a life of leisure.
- 39 Who hears Anne’s voice at the end of the scene?
- A. her father
 - B. Miep
 - C. Peter
 - D. the audience
- 40 In line 128, the word *loathe* means
- A. expect.
 - B. despise.
 - C. fear.
 - D. enjoy.

**Grade 7 English Language Arts
Language and Literature
Spring 2004 Released Items:
Reporting Categories, Standards, and Correct Answers**

Item No.	Page No.	Reporting Category	Standard	Correct Answer (MC)*
1	71	<i>Reading and Literature</i>	10	D
2	71	<i>Reading and Literature</i>	8	A
3	71	<i>Reading and Literature</i>	13	C
4	71	<i>Reading and Literature</i>	8	B
5	72	<i>Reading and Literature</i>	13	D
6	72	<i>Reading and Literature</i>	13	A
7	72	<i>Reading and Literature</i>	13	A
8	72	<i>Language</i>	4	B
9	73	<i>Reading and Literature</i>	13	
10	76	<i>Reading and Literature</i>	16	D
11	76	<i>Reading and Literature</i>	8	D
12	77	<i>Reading and Literature</i>	16	C
13	77	<i>Language</i>	4	B
14	79	<i>Reading and Literature</i>	14	C
15	79	<i>Reading and Literature</i>	10	B
16	79	<i>Reading and Literature</i>	14	B
17	79	<i>Reading and Literature</i>	14	D
18	80	<i>Reading and Literature</i>	15	
19	83	<i>Reading and Literature</i>	8	A
20	83	<i>Reading and Literature</i>	12	D
21	83	<i>Reading and Literature</i>	8	C
22	83	<i>Reading and Literature</i>	8	B
23	84	<i>Reading and Literature</i>	12	B
24	84	<i>Reading and Literature</i>	8	C
25	84	<i>Reading and Literature</i>	12	A
26	84	<i>Language</i>	5	D
27	85	<i>Reading and Literature</i>	8	
28	88	<i>Reading and Literature</i>	13	C
29	88	<i>Reading and Literature</i>	8	C
30	88	<i>Reading and Literature</i>	13	B
31	88	<i>Reading and Literature</i>	8	D
32	89	<i>Reading and Literature</i>	8	D
33	89	<i>Reading and Literature</i>	8	C
34	89	<i>Reading and Literature</i>	8	D
35	89	<i>Language</i>	4	A
36	90	<i>Reading and Literature</i>	13	
37	92	<i>Reading and Literature</i>	8	C
38	92	<i>Reading and Literature</i>	17	B
39	92	<i>Reading and Literature</i>	17	D
40	92	<i>Language</i>	4	B

* Answers are provided here for multiple-choice items only. Sample responses and scoring guidelines for open-response items, which are indicated by shaded cells, will be posted to the Department's website later this year.