

Directions:

Today, you will be taking the Grade 8 English Language Arts/Literacy Performance-Based Assessment Practice Test.

Read each passage and all questions carefully. Some questions will ask you to choose one correct answer, while others will ask you to choose more than one correct answer. You may look back at the passage or passages as often as necessary.

Mark your answers by filling in the circles in your test booklet. Do not make any stray marks in the test booklet. If you need to change an answer, be sure to erase your first answer completely.

To answer a question that asks you to pick one answer, fill in the circle as follows:

(A) ● (C) (D) (E) (F) (G)

To answer a question that asks you to pick more than one answer, fill in the circles as follows:

(A) ● (C) ● ● (F) (G)

Some questions will ask you to provide a written response to the passages you have read. You may plan your response using scratch paper. Be sure to write your response in the box provided in your test booklet. Crossed-out work, writing that falls outside of the box, or work on scratch paper will not be scored.

If you do not know the answer to a question, you may skip it and go on. If you finish the test early, you may review your answers and any questions you may have skipped.

Today you will read three texts involving elephants. First you will read an article about an experiment. Then you will read a passage from the actual study of the experiment. Finally you will read about a different study of elephant behavior. As you review these sources, you will gather information and answer questions about the purposes and points of view of the authors and researchers. Then you will write an analytical essay.

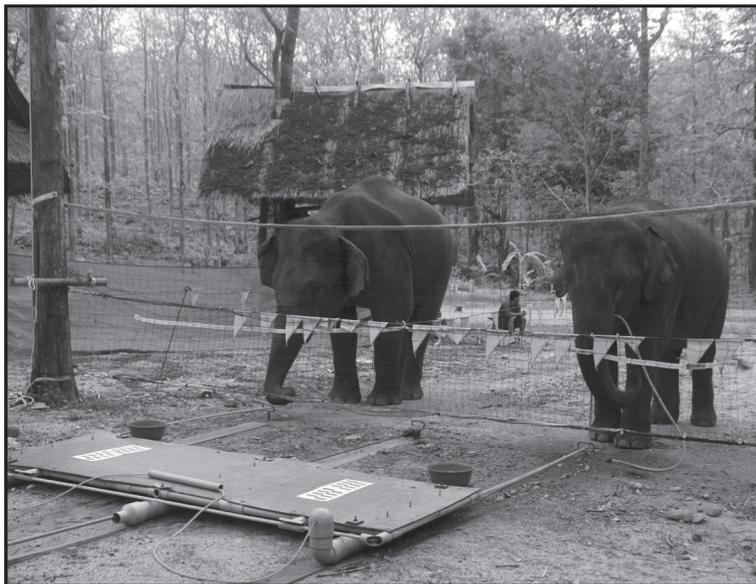
Read the article “Elephants Can Lend a Helping Trunk.” Then answer questions 1 through 3.

Elephants Can Lend a Helping Trunk

by Virginia Morell

- 1 Elephants know when they need a helping hand—or rather, trunk. That’s the conclusion of a new study that tested the cooperative skills of Asian elephants (*Elephas maximus*) in Thailand and showed that the pachyderms understand that they will fail at a task without a partner’s assistance. The ability to recognize that you sometimes need a little help from your friends is a sign of higher social cognition, psychologists say, and is rarely found in other species. Elephants now join an elite club of social cooperators: chimpanzees, hyenas, rooks, and humans.
- 2 To test the elephants’ cooperation skills, a team of scientists modified a classic experiment first administered to chimpanzees in the 1930s, which requires two animals work together to earn a treat. If they don’t cooperate, neither gets the reward. For the elephants, the researchers used a sliding table with a single rope threaded around it. Two bowls of corn were attached to the table, but the elephants could reach them only by pulling two ends of the rope simultaneously. Working with mahout—Asian elephant trainers—trained elephants at the Thai Elephant Conservation Center in Lampang, the researchers first taught individual animals to pull the rope with their trunks. The 12 elephants were then divided into six pairs, and each pair was released to walk to their waiting ropes. If one animal pulled the rope before the other, the rope would slip out, leaving the table—and treats—in place. “That taught them to pull together,” says Joshua Plotnik, a postdoc in experimental psychology at the University of Cambridge in the United Kingdom and the lead author of the study, which appears online this week in the *Proceedings of the National Academy of Sciences*.

- 3 To find out if the elephants understood that they needed one another's assistance, the researchers upped the challenge by releasing the elephants at different times. Thus, one elephant would arrive at the table before the other and would have to wait for a partner to show up before pulling the rope. "They learned to do this faster than the chimpanzees," says Plotnik. "They would stand there holding their end of the rope, just waiting." In another experiment, the partner's rope was placed out of reach. "When the partner couldn't do anything, the other one would just give up," Plotnik says. That shows the elephants understood why the partner was needed, he adds.
- 4 "These are clever experiments," says Karen McComb, a behavioral ecologist at the University of Sussex in the United Kingdom who studies social cognition in wild elephants. The findings are consistent with observations in nature, she says. For instance, in East Africa biologists have seen elephants work together to lift a fallen companion with their tusks. "It's particularly striking that the elephants were able to inhibit pulling" longer than chimpanzees do, says comparative psychologist Nicola Clayton of the University of Cambridge in the United Kingdom. She and her team showed that rooks, too, could pass a similar dual-rope exam, although they failed to wait. The study "adds to the growing body of evidence that elephants show some impressive cognitive abilities."



AP Photo/Joshua M. Plotnik

"Elephants Can Lend a Helping Trunk" by Virginia Morell, from *Science*, March 2011 issue. Copyright © 2011 by American Association for the Advancement of Science. Reprinted by permission of AAAS.

1. **Part A**

The key terms **cognition** and **cognitive** are used in paragraphs 1 and 4 of the article "Elephants Can Lend a Helping Trunk." What elephant trait do these key terms refer to?

- Ⓐ physical strength
- Ⓑ emotional expression
- Ⓒ mental awareness
- Ⓓ visual sensitivity

Part B

Which group of phrases from the article helps the reader understand the meaning of **cognition** and **cognitive**?

- Ⓐ "Elephants know . . . "; ". . . pachyderms understand . . . "; and ". . . ability to recognize . . ." (paragraph 1)
- Ⓑ ". . . they will fail . . . "; ". . . partner's assistance . . . "; and ". . . a little help from your friends . . ." (paragraph 1)
- Ⓒ ". . . clever experiments . . . "; ". . . observations in nature . . . "; and ". . . body of evidence . . ." (paragraph 4)
- Ⓓ ". . . work together to lift a fallen companion . . . "; ". . . inhibit pulling . . . "; and ". . . dual-rope exam . . ." (paragraph 4)

2. **Part A**

How does paragraph 4 of “Elephants Can Lend a Helping Trunk” contribute to the topic?

- Ⓐ The brief summary of other scientists’ research on animal cooperation suggests that the elephant experiment has not revealed many new insights.
- Ⓑ The quotations from the researchers’ fellow scientists emphasize the fact that these findings about elephants are original and important.
- Ⓒ Statements from scientists who are more familiar with elephant behavior in the wild question the researchers’ assertion that elephants cooperate.
- Ⓓ The scientists’ descriptions of similar experiments on rooks and chimpanzees show that the elephant study challenged similar research.

Part B

What detail from the article supports the answer to Part A?

- Ⓐ The ability to recognize the need for cooperation requires higher-level intelligence.
- Ⓑ Other species like chimpanzees, hyenas, rooks, and humans also cooperate with each other.
- Ⓒ The study on elephants appeared in the *Proceedings of the National Academy of Sciences*.
- Ⓓ The elephants learned to wait for a partner even faster than chimpanzees did.

3. Part A

How does the photograph help readers understand technical information presented in the article?

- Ⓐ by illustrating a pair of elephants waiting for their partners
- Ⓑ by demonstrating how elephants behave in a natural setting
- Ⓒ by clarifying how the objects in the experiment were set up
- Ⓓ by showing how the rope might slip out and leave the table out of reach

Part B

Which paragraph from the article supports the same understanding as the answer to Part A?

- Ⓐ paragraph 1
- Ⓑ paragraph 2
- Ⓒ paragraph 3
- Ⓓ paragraph 4

Read the passage from a study on elephants. Then answer questions 4 through 6.

from “Elephants Know When They Need a Helping Trunk in a Cooperative Task”

by Joshua M. Plotnik

General Setup of the Experimental Apparatus.

- 1 The table apparatus was comprised of two pieces of plywood painted and bolted to a rectangular PVC pipe frame 3.3 m wide and 1.2 m deep. The table was placed 4 m beyond two trees, and three wooden planks set in the ground ensured smooth movement of the table. A 7-m-wide volleyball net was strung between the two trees, anchored by two strong, taut wire ropes, forming a transparent but impassable barrier between the elephants and the table. In training trials, a single piece of rope, ≈ 6 m in length, was clipped to the front of the table and fed through a metal ring set in the ground beneath the net. Elephants could approach this rope and pull, drawing the table toward them. A wooden post embedded in the ground (replete with rubber shock absorber made from old tires) served as a stopper that prevented the table from advancing past the net. To keep the table centered as it was pulled in, a ≈ 2.5 -cm-thick wire rope—running perpendicular to the volleyball net—was strung from the buried table stopper, through the central PVC pipe of the table’s frame, and then fixed to a tree on the central axis beyond the table. This rigid guide cable prevented any skewing of the table and thus eliminated incongruities in food availability. Two red food bowls were attached to wooden boards, 50 cm in length, one on each side of the table; as the table reached the stop point, the two bowls became available to the elephant just under the net. In test trials, a single piece of 16.5-m-long, 1-cm-thick hemp rope was threaded through guides and around the back and two sides of the PVC frame so that the loose ends appeared out of two openings on either side of the front of the table. Each side’s rope end was then threaded through a metal ring set in the ground underneath the net, leaving 1.6 m of rope available to each elephant upon approach.
- 2 To demarcate the test area, from each of the two central trees was strung a single, flagged green rope ≈ 1.5 m above the ground and reaching back 10 m behind the net to the release point. During testing and control trials, a third flagged rope was strung down the center of the test area, dividing it into two equally wide lanes (3.5 m); thus, each elephant was released into a single lane

and had access only to a single rope end. These two lanes are similar to the separation between subjects in some previous studies (6), but not others, in which subjects were allowed to move around (e.g., refs. 5, 7, and 11). Because of the sheer size of the elephants and their regular, free-contact interaction with the experimenters and mahouts between trials, these lanes were necessary for safety reasons, whereas they did not prevent the elephants from reaching over to their partner or their partner's food bowl. The lanes did not seem to compromise the elephant's ability to learn the experimental task contingencies.

- 3 All data were coded from two video cameras. A Panasonic PV-GS500 miniDV camera was fixed to a metal mount on a 7-m-long bamboo ladder, which was hoisted on pulleys between the two trees to a height ≈ 8 m above the ground. This camera's view was monitored on the ground via closed-circuit television. A second camera, a Canon HV20, was placed on a tripod beyond the table, providing a heads-on view of the elephants.

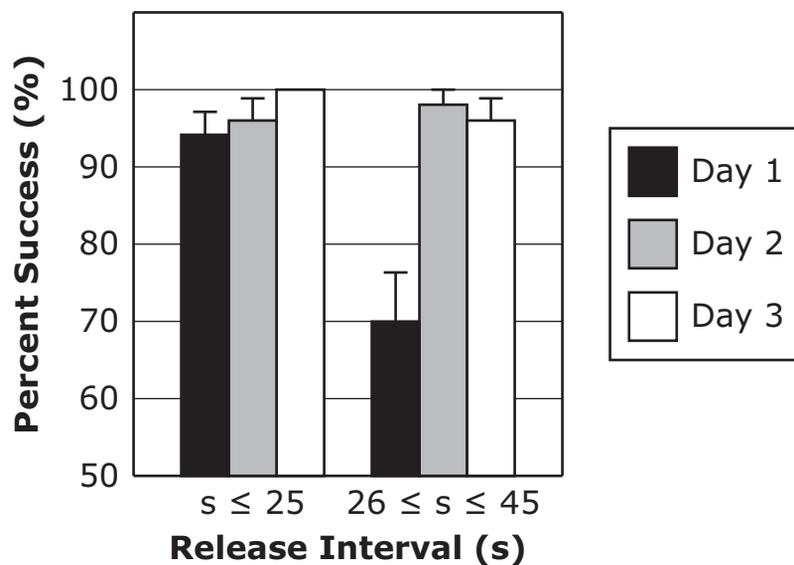
Procedure

- 4 In training trials, a mahout¹ would walk with his elephant to the single available rope end and train his animal to pick up and pull the rope by using vocal commands. Rope-pulling strategies were ultimately at the discretion of the elephant, but all elephants had earlier, as part of the facility's routine, been trained to pull chains. In testing trials, the two mahouts stood at the release point with their elephants and restrained them by touching the ear or front leg. When signaled by the experimenters—who were positioned 10 m to the side and back from the setup—elephants were released down their respective lanes. Upon release, mahouts turned away from the elephants and remained silent to minimize chances for cuing, and in position behind the elephants for safety. Trials began when the mahouts gave release commands—they released their hold on the elephant and gave a single word, "go" command once so that it was up to the elephant whether to proceed—and ended when the rope became unthreaded from the drawer, or when all of the food had been eaten (at which point a simple "stop" command was given by the experimenters and the elephants were recalled). During simultaneous and delayed release trials, each of the two food bowls on the table contained two halves of a full ear of corn, a highly desirable but rarely used food reward at the elephant facility. During the final tolerance condition, two trials each of the following were randomized over six trials: (*i*) each bowl was baited as in test trials, with two half-ears of corn,

¹mahout—the keeper or driver of an elephant

(ii) one (or the other) bowl was baited with six half-ears of corn. In between all trials, mahouts gave elephants pieces of banana and sugarcane to ensure they remained relaxed. Commands were never given during trials, and mahouts were cued to release their elephants with a hand signal that was not visible to the subjects. The interval between trials was 30 s, and elephant pairs never received >30 trials a day. Testing occurred between January and May 2009. Depending on prior obligations at the facility, elephants were tested in the early morning or early afternoon and were often hosed down with water on exceptionally hot days.

Success rate per day of delayed release testing in previously trained (≤ 25 s) and untrained ($26 \leq s \leq 45$) delay intervals. Elephants were given 10 trials of each type per day randomized across the session.



From "Elephants Know When They Need a Helping Trunk in a Cooperative Task" by Joshua M. Plotnik. From Proceedings of the National Academy of Sciences, February 3, 2011, edition. Copyright © 2011 by Joshua M. Plotnik. Reprinted by permission of Proceedings of the National Academy of Sciences.

4. **Part A**

What does the word **restrained** mean as it is used in paragraph 4?

- Ⓐ encouraged
- Ⓑ given instruction
- Ⓒ rewarded
- Ⓓ held back

Part B

Which word from paragraph 4 has the opposite meaning of **restrained**?

- Ⓐ positioned
- Ⓑ released
- Ⓒ delayed
- Ⓓ randomized

5. **Part A**

In the explanation of the procedure, the author includes the information that the elephants were released after the mahouts were given a hand signal that the elephants could not see. Why was this step included in the procedure?

- Ⓐ to guarantee the elephants were making their own choices rather than following direction
- Ⓑ to keep the elephants calm and make sure they would not be startled by sudden movements
- Ⓒ to prevent the elephants from misunderstanding the commands they were being given
- Ⓓ to protect the mahouts and the researchers during their close contact with the elephants

Part B

What other step in the procedure serves the same purpose?

- Ⓐ "In training trials, a mahout would walk with his elephant to the single available rope end and train his animal to pick up and pull the rope by using vocal commands."
- Ⓑ "In testing trials, the two mahouts stood at the release point with their elephants and restrained them by touching the ear or front leg."
- Ⓒ "Upon release, mahouts turned away from the elephants and remained silent to minimize chances for cuing, and in position behind the elephants for safety."
- Ⓓ "In between all trials, mahouts gave elephants pieces of banana and sugarcane to ensure they remained relaxed."

6. Part A

How does the chart build on information provided in the passage?

- Ⓐ It provides more specific information about the length of time between the release of the first elephant and the release of the second, and whether the pair was successful in the test.
- Ⓑ It confirms that the length of time between tests for each pair of elephants was never more than 30 seconds and that no elephant pair had more than 30 trials in a day.
- Ⓒ It shows the length of the rope in each trial and the distance that the pairs of elephants had to pull the table in order to get the corn close enough to eat.
- Ⓓ It records the distance that the mahouts stood away from the elephants in each trial and whether the elephant pairs were successful in retrieving the treats.

Part B

The chart provides further details for which paragraph in the passage?

- Ⓐ paragraph 1
- Ⓑ paragraph 2
- Ⓒ paragraph 3
- Ⓓ paragraph 4

Read the article “Elephants Console Each Other.” Then answer questions 7 through 9.

Elephants Console Each Other

by Virginia Morell

- 1 Elephants, both African and Asian, have long been considered empathetic animals. They help baby elephants stuck in mud holes, use their trunks to lift other elephants that are injured or dying, and even reportedly reassure distressed individual elephants with a gentle touch of their trunk. But it’s one thing to witness something that looks like consolation, and another to prove that this is what elephants are doing. Now, scientists have shown that Asian elephants do indeed get distressed when they see others in trouble, and they reach out to console them—just as we do when we see someone suffering. Elephants, thus, join a short list of other animals, including great apes, canines, and some birds, that scientists have shown to reassure others.
- 2 The study “is the first to investigate responses to distress by Asian elephants,” which “is inherently difficult to assess because one has to wait for opportunities to arise spontaneously,” says Shermin de Silva, a behavioral ecologist at the Uda Walawe Elephant Research Project in Sri Lanka. It would not be ethical to intentionally create stressful situations for the animals as a test, she notes—which is why, until now, researchers have had to rely on well-documented but anecdotal observations of wild and captive elephants to back up claims that they reassure each other.
- 3 Joshua Plotnik, a behavioral ecologist at Mahidol University, Kanchanaburi, in Thailand, and Frans de Waal, a primatologist at Emory University in Atlanta, got around this problem by comparing Asian elephants’ behaviors during times of stress to periods when little upset them. For 1 to 2 weeks every month for nearly a year, Plotnik spent 30 to 180 minutes daily watching and recording 26 captive Asian elephants. The animals ranged in age from 3 to 60 years old and lived within a 30-acre area of Elephant Nature Park in northern Thailand. Most of the elephants, aside from mother-juvenile pairs, were unrelated and did not live in family groups as wild elephants do. Instead, the park’s Mahouts, or keepers, organized them into six groups which they then guided through a daily routine—bathing and feeding them in the morning, and tethering them at night. But during the day, the elephants were left alone to roam and graze at will.

- 4 Plotnik watched the elephants during their free periods and recorded their reactions to stressful events, such as a dog walking nearby, a snake rustling in the grass, or the presence of an unfriendly elephant. Other researchers have previously shown that when upset, an elephant flares its ears and erects its tail; it may also trumpet or roar, or make a low rumble to show its distress. When elephants in the park saw another elephant behaving in this manner, the observers typically responded by “adopting the same emotion,” Plotnik says, “just as we do when watching a scary movie together. If an actor is frightened, our hearts race, and we reach for each other’s hands”—a reaction known as “emotional contagion.”
- 5 For example, in one event recorded on video, the female Mae Perm rushes to the side of another adult female, Jokia, who was upset after hearing the roar of a captive bull elephant in another nearby park. Both elephants push their ears forward and raise their tails—but Mae Perm does so only after seeing Jokia’s distress. Mae Perm also makes loud chirps, which are known to be reassuring calls, and then caresses Jokia with her trunk, finally placing it in Jokia’s mouth—an act which “might send a signal, ‘I’m here to help you, not hurt you,’ ” Plotnik says. Jokia, in turn, places her trunk in Mae Perm’s mouth—a gesture which is probably like a hug, the researchers say.
- 6 Sometimes several elephants were present when one was spooked by something. These bystanders typically reacted the same way, adopting the agitated behavior of the victim, as Plotnik calls the distressed individual, raising their tails, flaring their ears, and sometimes urinating and defecating while chirping. In some cases, they also formed a protective circle around the victim.
- 7 Plotnik recorded 84 such stressful incidents, noting where each occurred, the time of day, weather, and what other elephants were present—and how these individuals reacted. For a control, he compared these incidents with periods with as many matching variables as possible, but when nothing stressful occurred. The researchers’ subsequent analysis—reported today in *PeerJ*—showed that the elephants’ emotional contagion and distinctive, reassuring behaviors happened almost exclusively in response to some stressful trigger.
- 8 Most significantly, the elephants seemed capable of recognizing distress in their fellows, a behavior that may require empathy. “It’s that ability to put yourself emotionally into another’s shoes,” Plotnik says.
- 9 But proving that is what elephants are doing will take more studies, he and others say, and preferably in wild, not captive, populations. “What is unclear is whether this reassurance primarily benefits the distressed animal, or the responders,” de Silva says.

- 10 Nevertheless, the study “provides a very interesting first exploration” into the “post-distress behavior of elephants,” says Graeme Shannon, a behavioral ecologist at Colorado State University, Fort Collins, adding that the findings are “intriguing because they parallel what has been observed in captive and wild non-human primates, further underlining the complex cognitive abilities of elephants.”
- 11 Some think the work may aid conservation efforts. “Any good science that supports the idea that elephants are sentient¹ beings capable of empathy is important,” adds Cynthia Moss, an ethologist and director of the Amboseli Elephant Research Project in Kenya, who has observed “reassurance behaviors” daily among the elephants there for more than 40 years.

¹sentient—capable of feeling

From “Elephants Console Each Other” by Virginia Morell, 18 February 2014. Web. 21 July 2014. Reprinted with permission.

7. Part A

What does the phrase **anecdotal observations** mean as it is used in paragraph 2?

- Ⓐ a method of recording an event using special processes
- Ⓑ a perspective on a subject area that reveals its inner significance
- Ⓒ a description of an event that lacks seriousness and seeks to entertain through humor
- Ⓓ a report that is somewhat unreliable because it is based on a personal account

Part B

Which sentence from paragraph 1 provides the **best** evidence for the answer to Part A?

- Ⓐ "Elephants, both African and Asian, have long been considered empathetic animals."
- Ⓑ "But it's one thing to witness something that looks like consolation, and another to prove that this is what elephants are doing."
- Ⓒ "Now, scientists have shown that Asian elephants do indeed get distressed when they see others in trouble, and they reach out to console them—just as we do when we see someone suffering."
- Ⓓ "Elephants, thus, join a short list of other animals, including great apes, canines, and some birds, that scientists have shown to reassure others."

8. **Part A**

Which statement **best** expresses the central idea in the article?

- Ⓐ Science plays an important role in educating people about elephants, which may help protect elephants in the wild.
- Ⓑ Science has provided new support for long-held beliefs that elephants possess advanced social characteristics.
- Ⓒ Researchers believe that many gestures made by elephants are similar to human hugs.
- Ⓓ Researchers have used creative methods to design successful studies of elephants.

Part B

Which quotation **best** expresses the central idea in the answer to Part A?

- Ⓐ "Instead, the park's Mahouts, or keepers, organized them into six groups which they then guided through a daily routine—bathing and feeding them in the morning, and tethering them at night." (paragraph 3)
- Ⓑ "'What is unclear is whether this reassurance primarily benefits the distressed animal, or the responders . . .'" (paragraph 9)
- Ⓒ ". . . the findings are 'intriguing because they parallel what has been observed in captive and wild non-human primates, further underlining the complex cognitive abilities of elephants.'" (paragraph 10)
- Ⓓ "Some think the work may aid conservation efforts." (paragraph 11)

9. Part A

What is the purpose of paragraph 2 of the passage?

- Ⓐ to give a broad overview of the scientific study before describing the study in greater detail
- Ⓑ to introduce the perspective of an expert whose opinion differs from that of the other scientists described in the article
- Ⓒ to suggest that some aspects of elephant behavior are more important to study than others, even though that has only recently been recognized
- Ⓓ to establish that some elephant behaviors have proved difficult to study, in order to reinforce the importance of the study described in the article

Part B

Which sentence from the passage provides the **best** support for the answer to Part A?

- Ⓐ "Elephants, thus, join a short list of other animals, including great apes, canines, and some birds, that scientists have shown to reassure others." (paragraph 1)
- Ⓑ "Joshua Plotnik, a behavioral ecologist at Mahidol University, Kanchanaburi, in Thailand, and Frans de Waal, a primatologist at Emory University in Atlanta, got around this problem by comparing Asian elephants' behaviors during times of stress to periods when little upset them." (paragraph 3)
- Ⓒ "Most of the elephants, aside from mother-juvenile pairs, were unrelated and did not live in family groups as wild elephants do." (paragraph 3)
- Ⓓ "Other researchers have previously shown that when upset, an elephant flares its ears and erects its tail; it may also trumpet or roar, or make a low rumble to show its distress." (paragraph 4)

