Illinois IAR Grade 7 English Language Arts Practice

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Unit 1

Directions:

Today, you will take Unit 1 of the Grade 7 English Language Arts/Literacy Practice Test.

Read each passage and question. Then, follow the directions to answer each question. Mark your answers by completely filling in the circles in your answer document. Do not make any pencil marks outside of the circles. If you need to change an answer, be sure to erase your first answer completely.

One of the questions will ask you to write a response. Write your response in the space provided in your answer document. Be sure to keep your response within the provided space. Only responses written within the provided space will be scored.

If you do not know the answer to a question, you may go on to the next question. If you finish early, you may review your answers and any questions you did not answer in this unit ONLY. Do not go past the stop sign.

Today you will read a passage from *The Count of Monte Cristo* as well as a scene from the play *Blessings*. After you have read the selections and answered some questions, you will write an essay analyzing the themes presented in the two texts.

Read the passage from *The Count of Monte Cristo*, in which Edmond Dantes has been imprisoned for over four years and has recently stopped eating the prison food. Then answer questions 1 through 3.

from *The Count of Monte Cristo*

by Alexandre Dumas

1 Suddenly, about nine o'clock in the evening, Edmond heard a hollow sound in the wall against which he was lying.

2 So many loathsome animals inhabited the prison, that their noise did not, in general, awake him; but whether abstinence[1] had quickened his faculties, or whether the noise was really louder than usual, Edmond raised his head and listened. It was a continual scratching, as if made by a huge claw, a powerful tooth, or some iron instrument attacking the stones.

3 Although weakened, the young man's brain instantly responded to the idea that haunts all prisoners—liberty! It seemed to him that heaven had at length taken pity on him, and had sent this noise to warn him on the very brink of the abyss.[2] Perhaps one of those beloved ones he had so often thought of was thinking of him, and striving to diminish the distance that separated them.

4 No, no, doubtless he was deceived, and it was but one of those dreams that forerun death!

5 Edmond still heard the sound. It lasted nearly three hours; he then heard a noise of something falling, and all was silent.

6 Some hours afterwards it began again, nearer and more distinct. Edmond was intensely interested. Suddenly the jailer entered.

7 For a week since he had resolved to die, and during the four days that he had been carrying out his purpose, Edmond had not spoken to the attendant, had not answered him when he inquired what was the matter with him, and turned his face to the wall when he looked too curiously at him; but now the jailer

[1]abstinence—self-denial from an action or practice
[2]abyss—bottomless pit

might hear the noise and put an end to it, and so destroy a ray of something like hope that soothed his last moments.

8 The jailer brought him his breakfast. Dantes raised himself up and began to talk about everything; about the bad quality of the food, about the coldness of his dungeon, grumbling and complaining, in order to have an excuse for speaking louder, and wearying the patience of his jailer, who out of kindness of heart had brought broth and white bread for his prisoner.

9 Fortunately, he fancied that Dantes was delirious; and placing the food on the rickety table, he withdrew. Edmond listened, and the sound became more and more distinct.

10 "There can be no doubt about it," thought he; "it is some prisoner who is striving to obtain his freedom. Oh, if I were only there to help him!" Suddenly another idea took possession of his mind, so used to misfortune, that it was scarcely capable of hope—the idea that the noise was made by workmen the governor had ordered to repair the neighboring dungeon.

11 It was easy to ascertain this; but how could he risk the question? It was easy to call his jailer's attention to the noise, and watch his countenance as he listened; but might he not by this means destroy hopes far more important than the short-lived satisfaction of his own curiosity? Unfortunately, Edmond's brain was still so feeble that he could not bend his thoughts to anything in particular.

12 He saw but one means of restoring lucidity and clearness to his judgment. He turned his eyes towards the soup which the jailer had brought, rose, staggered towards it, raised the vessel to his lips, and drank off the contents with a feeling of indescribable pleasure. He had often heard that shipwrecked persons had died through having eagerly devoured too much food. Edmond replaced on the table the bread he was about to devour, and returned to his couch—he did not wish to die. He soon felt that his ideas became again collected—he could think, and strengthen his thoughts by reasoning. Then he said to himself, "I must put this to the test, but without compromising anybody. If it is a workman, I need but knock against the wall, and he will cease to work, in order to find out who is knocking, and why he does so; but as his occupation is sanctioned by the governor, he will soon resume it. If, on the contrary, it is a prisoner, the noise I make will alarm him, he will cease, and not begin again until he thinks everyone is asleep."

13 Edmond rose again, but this time his legs did not tremble, and his sight was clear; he went to a corner of his dungeon, detached a stone, and with it

knocked against the wall where the sound came. He struck thrice. At the first blow the sound ceased, as if by magic.

14 Edmond listened intently; an hour passed, two hours passed, and no sound was heard from the wall—all was silent there.

15 Full of hope, Edmond swallowed a few mouthfuls of bread and water, and, thanks to the vigor of his constitution, found himself well-nigh recovered.

16 The day passed away in utter silence—night came without recurrence of the noise.

17 "It is a prisoner," said Edmond joyfully. The night passed in perfect silence. Edmond did not close his eyes.

From THE COUNT OF MONTE CRISTO by Alexandre Dumas—Public Domain

1. Part A

What is the meaning of **recurrence** as it is used in paragraph 16 of *The Count of Monte Cristo*?

A. a desire for something hard to obtain

B. an instance of something happening again

C. a way of thinking about something important

D. an understanding of something previously unknown

Part B

Which evidence from *The Count of Monte Cristo* supports the correct answer in Part A?

A. "'. . . . to but knock against the wall, and he will cease to work . . .'" (paragraph 12)

B. "'. . . he will soon resume it.'" (paragraph 12)

C. "Full of hope, Edmond swallowed a few mouthfuls of bread and water . . . . " (paragraph 15)

D. "Edmond did not close his eyes." (paragraph 17)

2. Part A

In *The Count of Monte Cristo*, how does the noise in the wall affect Edmond Dantes?

A. It causes him to summon the jailer.

B. It gives him a sense of hope.

C. It frightens him into behaving foolishly.

D. It proves that he will escape.

Part B

Which evidence from *The Count of Monte Cristo* supports the answer to Part A?

A. "So many loathsome animals inhabited the prison, that their noise did not, in general, awake him . . . . " (paragraph 2)

B. "It seemed to him that heaven had at length taken pity on him . . . . " (paragraph 3)

C. "No, no, doubtless he was deceived, and it was but one of those dreams that forerun death!" (paragraph 4)

D. "Suddenly the jailer entered." (paragraph 6)

3. Part A

What is a central idea of *The Count of Monte Cristo*?

A. Poor conditions cause a man to imagine sounds in his cell.

B. A jailer takes pity on a hungry man and offers him food.

C. The lack of company causes a man to befriend his jailer.

D. A confined man is energized by the possibility of escape.

Part B

Which evidence from *The Count of Monte Cristo* **best** supports the answer to Part A?

A. "Dantes raised himself up and began to talk about everything; about the bad quality of the food, about the coldness of his dungeon, grumbling and complaining, in order to have an excuse for speaking louder, and wearying the patience of his jailer, who out of kindness of heart had brought broth and white bread for his prisoner." (paragraph 8)

B. "Fortunately, he fancied that Dantes was delirious; and placing the food on the rickety table, he withdrew." (paragraph 9)

C. "'There can be no doubt about it,' thought he; 'it is some prisoner who is striving to obtain his freedom. Oh, if I were only there to help him!'" (paragraph 10)

D. "Unfortunately, Edmond's brain was still so feeble that he could not bend his thoughts to anything in particular." (paragraph 11)

Read the scene from *Blessings*. Then answer questions 4 through 6.

from *Blessings*

by Mary Hall Surface

LIGHTS UP on the "looking spot," an outcropping of rock on the peak of a ridge, high above the valley below. JESSE is leading the way. They are just arriving.

JESSE. *(Entering.)* It gets cooler, brighter, right at the bend. See?

RENE. *(Entering.)* And thinner. The air feels thinner.

JESSE. Cause it is.

(RENE reaches the top. She looks out for the first time.)

RENE. Oh my *gosh*.

JESSE. Like it?

RENE. I didn't know sunsets came like this! How high *are* we?

JESSE. High as you can get without ropes. See that ridge? Sheer rock-face. I scale that once a year. Since I was twelve. It's my test.

RENE. Are those little color specks houses?

JESSE. Ben Lomand. And that way, if the fog's up, you can see the ocean and the lighthouse from Seal Rock, flickering, kinda like a heartbeat.

RENE. How'd you find this?

JESSE. Sniffed it out. *(RENE laughs.)* All right. Review. First turn?

RENE. When you smell the *(Proud of remembering.)* "eucalyptus," follow the smell.

JESSE. Good. Next turn.

RENE. At the tallest redwood with the . . . uh . . .

JESSE. Burl. Think curl. Wood curling.

RENE. *Burl* that looks like a big bump on a giant nose. Then follow the nose.

JESSE. Until—

RENE. You see the blue-gray rock. Then straight up the trail, carpeted with "golden orange-brown" needles, sniffing the air cool. Watch the trees for bright, then Tah-dah!

JESSE. Great map, huh?

20 **RENE**. The best! *(RENE crosses to have a seat near the edge.)* Jeez!!

21 **JESSE**. Careful. There's no map for gettin' you back up if you fall.

22 **RENE**. Sorry.

(They settle into sitting.)

23 **RENE**. Man, I've got to bring my paints up here.

24 **JESSE**. You paint?

25 **RENE**. Watercolor.

26 **JESSE**. What of?

27 **RENE**. Maps. Picture maps. Of places. Uncle Randy says *you* make amazing mirrors. From redwood.

28 **JESSE**. Don't know how amazing they are. But I make 'em. And sell 'em. So people can see themselves in the—through the wood.

29 **RENE**. What else do you do?

30 **JESSE**. Like to cook. Like poems. Ever written a poem?

31 **RENE**. I don't do poems. Too many words. Is that a river?

32 **JESSE**. Runs all the way to the ocean. I hike the whole length of it. Ever seen where a river and the ocean meet?

33 **RENE**. I'm not sure.

34 **JESSE**. Down at Sunset Beach. You can see it flow clear down the mountain 'til it forms a riverbed right on the beach, in the sand. The water looks real clear. Light. Not like the ocean at all. Like it's not really supposed to be there, but it is. Then the waves just lap up and catch it, little bit at a time. Then it all changes.

35 **RENE**. What's it like having Uncle Randy live in your house?

(JESSE looks right at RENE, surprised by her directness.)

36 **RENE**. Do you wish he'd go away? That it could be all yours again?

37 **JESSE**. Don't know how I'm supposed to answer that.

(RENE waits for an answer.)

38 **JESSE**. Rene, I've spent a lot of days, nights, too, wishin' that things weren't the way they are. But yeah. I wish I'd never had to sell the cabin and all you people had stayed back in San Francisco—

39 **RENE**. San Raphael.

GO ON ▶

40 **JESSE**. Takes away the pattern. New rhythm—gets me off beat.

41 **RENE**. *(Getting up.)* I should head back now.

42 **JESSE**. Rene—

43 **RENE**. I just do the map backwards, right?

44 **JESSE**. Rene, wait. Please don't think . . . I'm not used to lots of new people. I'm not . . . wanting to be a . . . I don't know.

45 **RENE**. *(Enjoying repeating what he said to her.)* A what?

46 **JESSE**. *(Enjoying it, too.)* I don't know.

47 **RENE**. You've got stranger-invasion.

48 **JESSE**. *(Laughs.)* Will it kill me?

49 **RENE**. I don't like them either. Strangers.

50 **JESSE**. What *do* you like?

51 **RENE**. Being by myself. I understand me when everybody else is lost. *(JESSE laughs.)* Let's go back.

52 **JESSE**. Rene, first, would you read this? *(JESSE takes a piece of paper out of his shirt pocket. He hands it to RENE.)* It's a poem. Real short. I wrote it about this place.

53 **RENE**. *(Glancing at the page.)* It's nice.

54 **JESSE**. No, aloud. I need to hear it.

55 **RENE**. I . . . I'll read it later, Jesse. After dinner. You're gonna eat with us, aren't you?

(JESSE nods)

56 **RENE**. Great! Now, sniffin' for that needle carpet.

57 **JESSE**. *(As they exit, playfully.)* They're "yellow" orange-brown, you know.

58 **RENE**. *Golden* orange-brown!

59 **JESSE**. *(Laughing.)* Whatever!

(RENE and JESSE exit. LIGHTS OUT. Music transition.)

CURTAIN

END OF PLAY

4. Part A

What is the meaning of **scale** as it is used in speech 7 of the scene from *Blessings*?

A. to remove in layers

B. to increase or reduce in size

C. to climb up or over something

D. to create according to certain proportions

Part B

Which phrase from the scene from *Blessings* **best** helps the reader to understand the meaning of **scale**?

A. "And thinner. The air feels thinner." (speech 2)

B. "High as you can get without ropes." (speech 7)

C. "See that ridge? Sheer rock-face." (speech 7)

D. "But I make 'em. And sell 'em." (speech 28)

5. Part A

How does the author of *Blessings* use stage directions to reveal that the two characters are learning more about each other?

A. by describing their reactions

B. by describing their activities

C. by describing their relationship

D. by describing their accomplishments

Part B

Which evidence from the scene from *Blessings* supports the correct answer in Part A?

A. "*(RENE reaches the top. She looks out for the first time.)*" (before speech 4)

B. "*(Proud of remembering.)*" (speech 12)

C. "*(JESSE looks right at RENE, surprised by her directness.)*" (before speech 36)

D. "*(RENE waits for an answer.)*" (before speech 38)

6. Part A

What is **one** way the stage directions help contribute meaning to the scene?

A. by establishing a lighthearted mood

B. by foreshadowing the play's conflict

C. by summarizing the plot of the play

D. by comparing the characters' points of view

Part B

Which **two** pieces of evidence support the answer to Part A?

A. "*(RENE reaches the top. She looks out for the first time.)*" (before speech 4)

B. "*(Proud of remembering.)*" (speech 12)

C. "*(RENE crosses to have a seat near the edge.)*" (speech 20)

D. "*(JESSE looks right at RENE, surprised by her directness.)*" (before speech 36)

E. "*(Enjoying repeating what he said to her.)*" (speech 45)

F. "*(As they exit, playfully.)*" (speech 57)

Refer to the passage from *The Count of Monte Cristo* and the scene from *Blessings*. Then answer question 7.

7. You have read a passage from *The Count of Monte Cristo* and a scene from *Blessings*. Think about the similarities and differences in how the two authors develop the themes in each text.

Write an essay in which you identify a theme from each text and analyze how each theme is developed. Be sure to include specific details from **both** selections.

Read the folktale "The Four Dragons." Then answer questions 8 through 11.

The Four Dragons

1 Once upon a time, there were no rivers and lakes on earth, but only the Eastern Sea, in which lived four dragons: the Long Dragon, the Yellow Dragon, the Black Dragon, and the Pearl Dragon. One day the four dragons flew from the sea into the sky. They soared and dived, playing at hide-and-seek in the clouds.

2 "Come over here quickly!" the Pearl Dragon cried out suddenly.

3 "What's up?" asked the other three, looking down in the direction where the Pearl Dragon pointed.

4 On the earth they saw many people putting out fruits and cakes, and burning incense sticks. They were praying! A white-haired woman, kneeling on the ground with a thin boy on her back, murmured,

5 "Please send rain quickly, God of Heaven, to give our children rice to eat."

6 For there had been no rain for a long time. The crops withered, the grass turned yellow and fields cracked under the scorching sun.

7 "How poor the people are!" said the Yellow Dragon. "And they will die if it doesn't rain soon."

8 The Long Dragon nodded. Then he suggested, "Let's go and beg the Jade Emperor for rain."

9 So saying, he leapt into the clouds. The others followed closely and flew towards the Heavenly Palace. Being in charge of all the affairs in heaven, on earth, and in the sea, the Jade Emperor was very powerful. He was not pleased to see the dragons rushing in.

10 "Why do you come here instead of staying in the sea and behaving yourselves?"

11 The Long Dragon stepped forward and said, "The crops on earth are withering and dying, Your Majesty. I beg you to send rain down quickly!"

12 "All right. You go back first, I'll send some rain down tomorrow." The Jade Emperor pretended to agree while listening to the songs of the fairies.

13 The four dragons responded, "Thanks, Your Majesty!"

14 The four dragons went happily back. But ten days passed, and not a drop of rain came down. The people suffered more, some eating bark, some grass roots, some forced to eat white clay when they ran out of bark and grass roots. Seeing all this, the four dragons felt very sorry, for they knew the Jade Emperor only cared about pleasure, and never took the people to heart. They could only rely on themselves to relieve the people of their miseries. But how to do it? Seeing the vast sea, the Long Dragon said that he had an idea.

15 "What is it? Out with it, quickly!" the other three demanded.

16 "Look, is there not plenty of water in the sea where we live? We should scoop it up and spray it towards the sky. The water will be like rain drops and come down to save the people and their crops," said Long Dragon.

17 "Good idea!" said the others as they clapped their hands.

18 "But," said the Long Dragon after thinking a bit, "we will be blamed if the Jade Emperor learns of this."

19 "I will do anything to save the people," the Yellow Dragon said resolutely.

20 "Then let's begin. We will never regret it," said Long Dragon.

21 The Black Dragon and the Pearl Dragon were not to be outdone. They flew to the sea, scooped up water in their mouths, and then flew back into the sky where they sprayed the water out over the earth. The four dragons flew back and forth, making the sky dark all around. Before long the sea water became rain pouring down from the sky.

22 "It's raining! It's raining! The crops will be saved!" the people cried and leaped with joy.

23 On the ground the wheat stalks raised their heads and the sorghum stalks straightened up. The god of the sea discovered these events and reported to the Jade Emperor.

24 "How dare the four dragons bring rain without my permission!" said the Jade Emperor.

25 The Jade Emperor was enraged, and ordered the heavenly generals and their troops to arrest the four dragons. Being far outnumbered, the four dragons could not defend themselves, and they were soon arrested and brought back to the heavenly palace.

26 "Go and get four mountains to lay upon them so that they can never escape!" The Jade Emperor ordered the Mountain God.

GO ON ▶

27 The Mountain God used his magic power to make four mountains fly there, whistling in the wind from afar, and pressed them down upon the four dragons. lmprisoned as they were, they never regretted their actions. Determined to do good for the people forever, they turned themselves into four rivers, which flowed past high mountains and deep valleys, crossing the land from the west to the east and finally emptying into the sea. And so China's four great rivers were formed—the Heilongjian (Black Dragon) in the far north, the Huanghe (Yellow River) in central China, the Changjiang (Yangtze, or Long River) farther south, and the Zhujiang (Pearl) in the very far south.

"The Four Dragons"—Public Domain

8. Part A

How do the dragons' actions contribute to the development of the theme of the folktale?

A. Their playfulness shows that appearances can be misleading when making character judgments.

B. Their willingness to disobey the Jade Emperor shows that sacrifice is often needed for the good of others.

C. Their reliability shows that respecting one's elders and following instructions are necessary for a successful society.

D. Their respect for the Jade Emperor shows that children can learn much from their ancestors about historical events.

Part B

Which **two** paragraphs from the folktale support the answer to Part A?

A. paragraph 1

B. paragraph 8

C. paragraph 13

D. paragraph 18

E. paragraph 23

F. paragraph 27

9. Part A

As used in paragraph 19, what is the meaning of the word **resolutely**?

A. acting with determination

B. hesitating to act

C. producing results

D. proceeding cautiously

Part B

Which quotation **most** helps the reader understand the meaning of **resolutely**?

A. "'Look, is there not plenty of water in the sea where we live?'" (paragraph 16)

B. "'We should scoop it up and spray it towards the sky.'" (paragraph 16)

C. "'Good idea!' said the others as they clapped their hands." (paragraph 17)

D. "'Then let's begin. We will never regret it,' said Long Dragon." (paragraph 20)

10. Part A

In the folktale, how do the dragons **most** impact the resolution of the plot?

A. by providing rain for the people

B. by becoming imprisoned in mountains

C. by creating a permanent water supply

D. by angering the god of the sea

Part B

Which detail from the folktale **best** supports the answer to Part A?

A. "'The water will be like rain drops and come down to save the people. . . .'" (paragraph 16)

B. ". . . discovered these events and reported to the Jade Emperor." (paragraph 23)

C. "'Go and get four mountains to lay upon them. . . .'" (paragraph 26)

D. ". . . they turned themselves into four rivers. . . ." (paragraph 27)

11. Part A

Which difference in attitudes between the Jade Emperor and the dragons influences events later in the folktale?

A. The Jade Emperor is amused by the needs of the people, and the dragons are annoyed.

B. The Jade Emperor is angered by the needs of the people, and the dragons are pleased.

C. The Jade Emperor is indifferent about the needs of the people, and the dragons are concerned.

D. The Jade Emperor is upset about the needs of the people, and the dragons are worried.

Part B

Which paragraphs provide evidence to support the answer to Part A?

A. paragraphs 2–3

B. paragraphs 5–6

C. paragraphs 11–12

D. paragraphs 22–23

Unit 2

Directions:

Today, you will take Unit 2 of the Grade 7 English Language Arts/Literacy Practice Test.

Read each passage and question. Then, follow the directions to answer each question. Mark your answers by completely filling in the circles in your answer document. Do not make any pencil marks outside of the circles. If you need to change an answer, be sure to erase your first answer completely.

One of the questions will ask you to write a response. Write your response in the space provided in your answer document. Be sure to keep your response within the provided space. Only responses written within the provided space will be scored.

If you do not know the answer to a question, you may go on to the next question. If you finish early, you may review your answers and any questions you did not answer in this unit ONLY. Do not go past the stop sign.

GO ON ▶

Today you will research electricity and consider some of the methods used in science texts to support different purposes. First, you will read a passage that explains some general principles of electricity. Then you will read an article about what causes a short circuit. Finally, you will read an article that explains how different materials conduct electricity. As you review these sources, think about the purpose of each and the role that explanations, examples, and descriptions play in communicating that purpose. At the end of the task, you will be asked to write an essay.

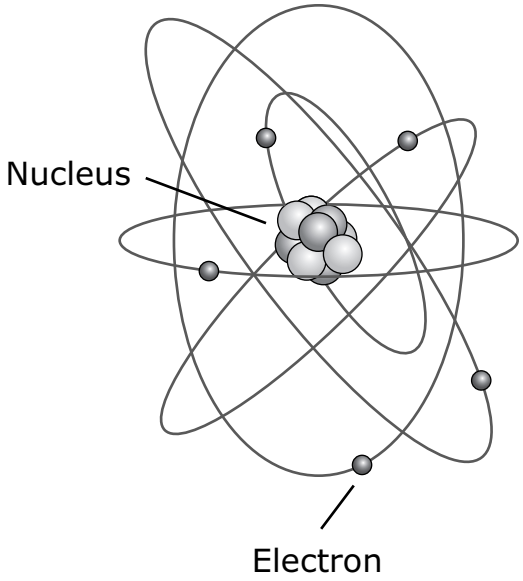
Read the article "Energy Story." Then answer questions 12 and 13.

Energy Story

1 Electricity figures everywhere in our lives. Electricity lights up our homes, cooks our food, powers our computers, television sets, and other electronic devices. Electricity from batteries keeps our cars running and makes our flashlights shine in the dark.

2 Here's something you can do to see the importance of electricity. Take a walk through your school, house or apartment and write down all the different appliances, devices and machines that use electricity. You'll be amazed at how many things we use each and every day that depend on electricity.

3 But what is electricity? Where does it come from? How does it work? Before we understand all that, we need to know a little bit about atoms and their structure.



4 All matter is made up of atoms, and atoms are made up of smaller particles. The three main particles making up an atom are the proton, the neutron and the electron.

5 Electrons spin around the center, or nucleus, of atoms, in the same way the moon spins around the earth. The nucleus is made up of neutrons and protons.

6 Electrons contain a negative charge, protons a positive charge. Neutrons are neutral—they have neither a positive nor a negative charge.

7 There are many different kinds of atoms, one for each type of element. An atom is a single part that makes up an element. There are 118 different known elements that make up every thing! Some elements like oxygen we breathe are essential to life.

8 Each atom has a specific number of electrons, protons and neutrons. But no matter how many particles an atom has, the number of electrons usually needs to be the same as the number of protons. If the numbers are the same, the atom is called balanced, and it is very stable.

9 So, if an atom had six protons, it should also have six electrons. The element with six protons and six electrons is called carbon. Carbon is found in abundance in the sun, stars, comets, atmospheres of most planets, and the food we eat. Coal is made of carbon; so are diamonds.

10 Some kinds of atoms have loosely attached electrons. An atom that loses electrons has more protons than electrons and is positively charged. An atom that gains electrons has more negative particles and is negatively charged. A "charged" atom is called an "ion."

11 Electrons can be made to move from one atom to another. When those electrons move between the atoms, a current of electricity is created. The electrons move from one atom to another in a "flow." One electron is attached and another electron is lost.

12 This chain is similar to the fire fighter's bucket brigades in olden times. But instead of passing one bucket from the start of the line of people to the other end, each person would have a bucket of water to pour from one bucket to another. The result was a lot of spilled water and not enough water to douse the fire. It is a situation that's very similar to electricity passing along a wire and a circuit. The charge is passed from atom to atom when electricity is "passed."

13 Scientists and engineers have learned many ways to move electrons off of atoms. That means that when you add up the electrons and protons, you would wind up with one more proton instead of being balanced.

14 Since all atoms want to be balanced, the atom that has been "unbalanced" will look for a free electron to fill the place of the missing one. We say that this unbalanced atom has a "positive charge" (+) because it has too many protons.

15 Since it got kicked off, the free electron moves around waiting for an unbalanced atom to give it a home. The free electron charge is negative, and has no proton to balance it out, so we say that it has a "negative charge" (-).

16 So what do positive and negative charges have to do with electricity?

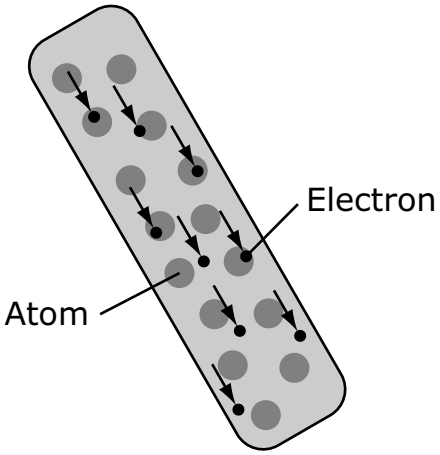
17 Scientists and engineers have found several ways to create large numbers of positive atoms and free negative electrons. Since positive atoms want negative electrons so they can be balanced, they have a strong attraction for the electrons. The electrons also want to be part of a balanced atom, so they have a strong attraction to the positive atoms. So, the positive attracts the negative to balance out.

18 The more positive atoms or negative electrons you have, the stronger the attraction for the other. Since we have both positive and negative charged groups attracted to each other, we call the total attraction "charge."

19 Energy also can be measured in joules. Joules sounds exactly like the word jewels, as in diamonds and emeralds. A thousand joules is equal to a British thermal unit.

20 When electrons move among the atoms of matter, a current of electricity is created. This is what happens in a piece of wire. The electrons are passed from atom to atom, creating an electrical current from one end to the other, just like in the picture.

GO ON ▶



21 Electricity is conducted through some things better than others. Its resistance measures how well something conducts electricity. Some things hold their electrons very tightly. Electrons do not move through them very well. These things are called insulators. Rubber, plastic, cloth, glass and dry air are good insulators and have very high resistance.

22 Other materials have some loosely held electrons, which move through them very easily. These are called conductors. Most metals—like copper, aluminum or steel—are good conductors.

"Energy Story" from http://www.energyquest.ca.gov/story/index.html—Public Domain/California Energy Commission

12. Part A

Why does the author **most likely** place the information in paragraphs 1–2 at the beginning of "Energy Story"?

A. to encourage the reader to learn how electronic devices are made

B. to show the reader how different machines can improve our lives

C. to draw the reader in by showing how electricity affects everyone

D. to teach the reader how to use electricity in different settings

Part B

Which detail from "Energy Story" **best** supports the answer in Part A?

A. ". . . walk through your school, house or apartment . . ." (paragraph 2)

B. ". . . how many things we use each and every day that depend on electricity." (paragraph 2)

C. ". . . in the same way the moon spins around the earth." (paragraph 5)

D. ". . . each person would have a bucket of water to pour from one bucket to another." (paragraph 12)

13. Part A

Which sentence **best** states the central idea of paragraphs 21–22 in "Energy Story"?

A. Materials that are insulators and conductors have a high resistance to electricity.

B. It is more difficult for electricity to pass through insulators than conductors.

C. Insulators and conductors are able to generate a high amount of electricity.

D. Electrons move through rubber easier than they move through metal.

Part B

Which sentence from "Energy Story" **best** supports the answer in Part A?

A. "Electricity is conducted through some things better than others."

B. "Its resistance measures how well something conducts electricity."

C. "Some things hold their electrons very tightly."

D. "Other materials have some loosely held electrons, which move through them very easily."

Read the article "Short Circuit." Then answer questions 14 through 17.

Short Circuit

What happens when you blow a fuse?

Current flowing through a wire heats the wire. The length of a wire affects its resistance, which determines how much current flows in the wire and how hot the wire gets.

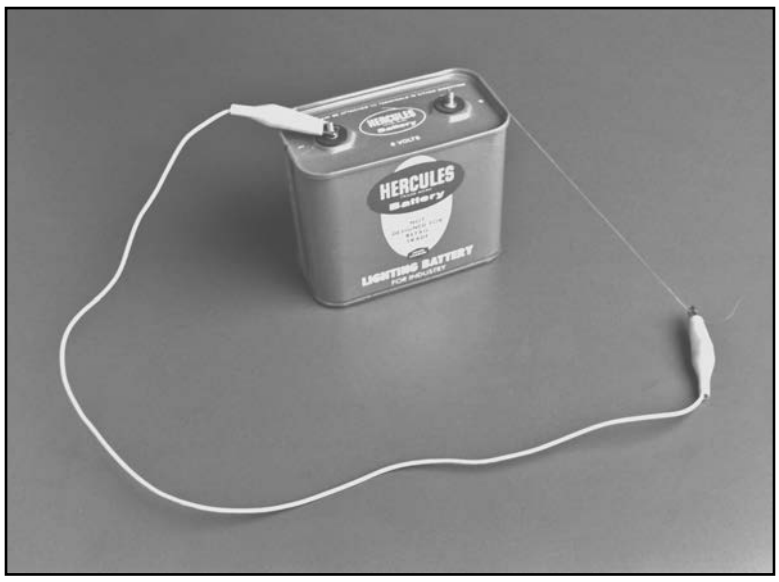
Materials

- **A fresh 6-volt or 12-volt lantern battery.**
- **A length of copper wire** with alligator clips attached to each end (or a test lead) from any electronics supply store.
- **A strand of very fine iron wire,** about 5 to 6 inches (13 to 15 cm) long. (You can get this by unbraiding a short length of picture-hanging wire or any braided iron wire.)
- **Adult help**

Assembly

(5 minutes or less)

1 Attach one end of the clip lead to one of the battery terminals. Attach one end of the fine iron wire to the other terminal. Attach the other end of the clip lead to the other end of the iron wire, placing the clip as far from the terminal as possible.



GO ON ▶

To Do and Notice

(15 minutes or more)

2 Observe what happens to the iron wire after you connect the clip. Move the clip on the iron wire a little closer to the battery and watch what happens. Keep moving the lead closer until you see the final dramatic result. (*CAUTION*: The wire gets very hot!)

What's Going On?

3 The thin iron wire is a good conductor of electricity, but not as good as the copper wire, which is deliberately chosen to have very low resistance. Thus, most of the resistance of the circuit is in the iron wire. When you connect the clip to the iron wire, the voltage of the battery pushes electrons through the circuit against the resistance of the iron wire, causing the iron wire to heat up. As you move the clip closer to the battery, the resistance of the iron wire decreases. Because the same voltage is applied across a lower resistance, more current flows, and the wire heats up more. Eventually, when you make the iron wire short enough, so much current flows that it melts the wire. Even the copper wire becomes warm.

4 In a normal electric circuit, an electric current powers an appliance, such as a refrigerator or TV. Every such appliance has a certain amount of resistance to the current flow, which keeps the current from reaching very large values. A *short circuit* occurs when the current finds a way to bypass the appliance on a path that has little or no resistance—for example, where frayed insulation bares a wire and allows it to touch the frame of the appliance, so the current can flow straight to the ground. In this situation, a very large current can occur, producing a lot of heat and a fire hazard.

5 Although houses today often contain circuit breakers rather than fuses, fuses are still around. A fuse contains a thin strip of wire, somewhat like the thin iron wire in our experiment. The current that goes to appliances must also pass through this strip of wire. If a short circuit occurs—or even if too many appliances get hooked up to one wire, so that too much current flows—the wire in the fuse heats up quickly and melts, breaking the circuit and preventing a fire from breaking out.

14. Part A

Which phrase is closest in meaning to the word **deliberately** as it is used in paragraph 3 of "Short Circuit"?

A. for the most part

B. by general agreement

C. with short notice

D. with careful consideration

Part B

Which detail from "Short Circuit" provides the **best** clue to the meaning of the word **deliberately**?

A. "good conductor"

B. "not as good"

C. "chosen to"

D. "very low"

15. Part A

Which sentence **best** states a central idea of "Short Circuit"?

A. Appliances can be destroyed by a heavy flow of electrons.

B. The flow of electrons follows a path of least resistance.

C. Fuses are an important means to keep homes safe from electrical hazards.

D. Circuit breakers are a tool to control the flow of electricity in homes.

Part B

Which detail from the article provides the **best** example of the central idea in Part A?

A. "In a normal electric circuit, an electric current powers an appliance, such as a refrigerator or TV."

B. "Every such appliance has a certain amount of resistance to the current flow, which keeps the current from reaching very large values."

C. "Although houses today often contain circuit breakers rather than fuses, fuses are still around."

D. ". . . the wire in the fuse heats up quickly and melts, breaking the circuit and preventing a fire from breaking out."

16. Part A

Which step of the experiment is repeated multiple times in "Short Circuit"?

A. Use an alligator clip to attach a copper wire to a battery terminal.

B. Attach one end of an iron wire to the other battery terminal.

C. Use a second alligator clip to attach the other end of the copper wire to the iron wire.

D. Shorten the distance between the second alligator clip and the battery.

Part B

A result occurs when the step is repeated in the experiment. Which phrase from "Short Circuit" shows the result of the repeated step that is the answer to Part A?

A. ". . . deliberately chosen to have very low resistance."

B. ". . . voltage of the battery pushes electrons through the circuit . . ."

C. ". . . more current flows . . ."

D. ". . . which keeps the current from reaching very large values."

17. Part A

Which paragraph **best** summarizes the conclusions of the experiment in "Short Circuit"?

A. paragraph 2

B. paragraph 3

C. paragraph 4

D. paragraph 5

Part B

Identify **three** details from "Short Circuit" that provide the **best** summary of the conclusions in the experiment.

A. Most houses have circuit breakers.

B. Frayed wires can touch appliances.

C. Iron wire is a good conductor of electricity.

D. The length of a wire affects its resistance.

E. Electric current powers appliances.

F. A short circuit occurs when there is a high flow of current with low resistance.

G. Appliances can short-circuit, creating a fire hazard.

Read the article "Conducting Solutions." Then answer questions 18 and 19.

Conducting Solutions

by Rodney Schreiner

1 An electric current is a flow of electrical charge. When a metal conducts electricity, the charge is carried by electrons moving through the metal. Electrons are subatomic particles with a negative electrical charge. When a solution conducts electricity, the charge is carried by ions moving through the solution. Ions are atoms or small groups of atoms that have an electrical charge. Some ions have a negative charge and some have a positive charge.

2 Pure water contains very few ions, so it does not conduct electricity very well. When table salt is dissolved in water, the solution conducts very well, because the solution contains ions. The ions come from the table salt, whose chemical name is sodium chloride. Sodium chloride contains sodium ions, which have a positive charge, and chloride ions, which have a negative charge. Because sodium chloride is made up of ions, it is called an ionic substance.

3 Not all substances are made up of ions. Some are made of uncharged particles called molecules. Sugar is such a substance. When sugar is dissolved in water, the solution does not conduct electricity, because there are no ions in the solution.

4 Some substances that are made of molecules form solutions that do conduct electricity. Ammonia is such a substance. When ammonia dissolves in water, it reacts with the water and forms a few ions. This is why laundry ammonia, which is a solution of ammonia in water, conducts electricity, but not very well.

5 Sometimes, when two different solutions are mixed, the substances they contain react with each other and form ions. This is what happens when ammonia and vinegar are mixed. An ammonia solution contains only a few ions, and it conducts electricity only poorly. A vinegar solution also contains only a few ions and conducts only a little electricity. But when these solutions are mixed, the ammonia reacts with the acid in vinegar (acetic acid), and they form a lot of ions. This is why the mixture of ammonia and vinegar conducts electricity very well.

18. Part A

As it is used in the article, what does the word **solution** mean?

A. an ability to combine smaller parts

B. an answer to a problem

C. a capacity to carry a stronger charge

D. a liquid mixture

Part B

Which detail from "Conducting Solutions" provides the **best** clue to the meaning of the word **solution**?

A. "conducts electricity" (paragraph 1)

B. "dissolved in water" (paragraph 2)

C. "are no ions" (paragraph 3)

D. "made of molecules" (paragraph 4)

19. Part A

In "Conducting Solutions," why does the author **most likely** include the information in paragraph 5?

A. to explain how solutions that contain ions conduct electricity

B. to show how some solutions low in ions can conduct electricity

C. to describe several ways to use solutions that conduct electricity

D. to list several solutions that are effective conductors of electricity

Part B

Which detail from paragraph 5 of "Conducting Solutions" **best** supports the answer in Part A?

A. "This is what happens when ammonia and vinegar are mixed."

B. "An ammonia solution contains only a few ions, and it conducts electricity only poorly."

C. "A vinegar solution also contains only a few ions and conducts only a little electricity."

D. "But when these solutions are mixed, the ammonia reacts with the acid in vinegar (acetic acid), and they form a lot of ions."

Refer to the articles "Energy Story," "Short Circuit," and "Conducting Solutions." Then answer question 20.

20. You have learned about electricity by reading three articles, "Energy Story," "Short Circuit," and "Conducting Solutions."

In an essay, analyze how each source uses explanations, examples, and/or descriptions to help accomplish its purpose. Support your response with evidence from each source.

STOP

ELA/Literacy: Grade 7

Paper Practice Test Answer and Alignment Document

Unit 1		
Items 1-7		
Task: Literary Analysis (LAT)		
Passage 1: from *The Count of Monte Cristo* by Alexandre Dumas		
Item Number	**Answer(s)**	**Standards Alignment**
1 E1178	**Item Type: EBSR** **Part A: B** **Part B: B**	RL1; RL4
2 E1181	**Item Type: EBSR** **Part A: B** **Part B: B**	RL1; RL3
3 E1182	**Item Type: EBSR** **Part A: D** **Part B: A**	RL1; RL2
Passage 2: from *Blessings* by Mary Hall Surface		
4 E1184	**Item Type: EBSR** **Part A: C** **Part B: B**	RL1; RL4
5 E1186	**Item Type: EBSR** **Part A**: **A** **Part B: C**	RL1; RL5
6 E2999	**Item Type: EBSR** **Part A: A** **Part B: E, F**	RL1; RL5
Passage 1: from *The Count of Monte Cristo* by Alexandre Dumas and **Passage 2**: from *Blessings* by Mary Hall Surface		
7 E1189	**Item Type: PCR** Refer to Grade 7 Scoring Rubric	RL1; RL2; W2; W4-10
Items 8-11		
Passage Type: Literary S/M		
Passage: "The Four Dragons" (folk tale)		
Item Number	**Answer(s)**	**Standards Alignment**
8 4150_A	**Item Type: EBSR** **Part A: B** **Part B: D, F**	RL1; RL2
9 4144_A	**Item Type: EBSR** **Part A: A** **Part B: D**	RL1; RL4
10 4694_A	**Item Type: EBSR** **Part A: C** **Part B: D**	RL1; RL3
11 4696_A	**Item Type: EBSR** **Part A: C** **Part B: C**	RL1; RL3

Unit 2		
Items 1-9		
Task: Research Simulation (RST)		
Passage 1: from "Energy Story" (California Energy Commission)		
Item Number	**Answer**	**Standards Alignment**
1 VH057987	**Item Type: EBSR** **Part A: C** **Part B: B**	RST1; RST5
2 VH058003	**Item Type: EBSR** **Part A: B** **Part B: A**	RST1; RST2
Passage 2: "Short Circuit" (Exploratorium)		
3 VH179865	**Item Type: EBSR** **Part A: D** **Part B: C**	RST1; RI4
4 VH179935	**Item Type: EBSR** **Part A**: **B** **Part B: D**	RST1; RST2
5 VH180042	**Item Type: EBSR** **Part A: D** **Part B: C**	RST1; RST3
6 VH180064	**Item Type: EBSR** **Part A: B** **Part B: C, D, F**	RST1; RST2
Passage 3: "Conducting Solutions" by Rodney Schreiner		
7 VH058043	**Item Type: EBSR** **Part A: D** **Part B: B**	RST1; RI4
8 VH101964	**Item Type: EBSR** **Part A**: **B** **Part B: D**	RST1; RST6
Passage 1: from "Energy Story"; **Passage 2:** "Short Circuit"; **Passage 3:** "Conducting Solutions"		
9 VH180131	**Item Type: PCR** Refer to Grade 7 Scoring Rubric	RST1; RST6; W2; W4-10