

Name _____ Seat Number _____

MSU-CELP

Certificate of English Language Proficiency

Practice Test #8

All items selected from actual CELP Administrations



Michigan State University
English Language Center

 Do not turn the page
until you are told to do so.

Notes for Test of English Writing Ability

You may use this space to write notes or an outline for the essay. However, you **must** write the essay on the separate, lined paper provided.

Think about it, write about it!

MSU-CELP Test of English Writing Ability

Instructions

For this section of the test, a proctor has given you a special answer form.

Using a **Number 2 pencil only**, write as much as you can, as well as you can, in an original composition on **one** of the two topics below. You have 35 minutes to complete the composition.

1. Large, international, chain or “big box” stores are common in many parts of the world. Often, when these kinds of stores open in a new area, smaller, independent businesses struggle to compete with them. Write about what small businesses should do in order to survive against larger competitors. Be sure to support your answer with examples, reasons, and explanations.

OR

2. There are many things that can make people feel happy or satisfied with their lives. For some people, these might be things such as health, safety, family, friendships, academic or professional success, or personal accomplishments. However, other people might value completely different things. Write about what aspects of life are most important for you in order to be happy or satisfied. Be sure to support your answer with examples, reasons, and explanations.

 Do not turn the page
until you are told to do so.

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Listen to this!

MSU-CELP Test of English Listening Ability

This section of the test is designed to assess your listening ability.

You should have the following items in front of you:

- a test answer sheet
- a test booklet
- a Number 2 pencil

If you are missing any of these items, raise your hand, and a test proctor will assist you.

Instructions for the Listening Ability section

This section has three main parts. Part 1 consists of several short conversations, and Part 2 has longer conversations. Part 3 contains an extended monologue and an extended dialogue.

- There are 40 questions on the listening test. For each question, choose the **one best** answer.
- For each question, find the letter on the answer sheet that corresponds to the answer you have chosen. Use your pencil to completely fill in the circle for your answer.
- If you are not sure of the answer, take your best guess. Unanswered items will be scored as incorrect.
- You **are** allowed to write in the test booklet.

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until you are told to do so.

Part 1—Short conversations

For each question in your test booklet, you will hear a short conversation. Each conversation has a short title to tell you what it is about.

Listen to the conversation and choose the letter of the choice that best answers the question that appears in your test booklet.

You will not hear the question; you will see it and read it. You will read it quietly to yourself. Use your pencil to mark your answer on your answer sheet.

Now look at Example X, A study group, and listen to the following conversation.

A study group

What does the woman want to know?

- a. what time the study session begins
- b. how long the review session will last
- c. whether John can help her get home

1. Downtown activity

Why did the man ask the woman if she had been downtown lately?

- a. He wondered if she had been to the festival.
- b. He wondered why the roads were blocked.
- c. He wondered what the signs said.

2. Mailing a package

When will the package arrive?

- a. in one day
- b. two days from now
- c. in five to seven days

3. At the office

What are the employees discussing?

- a. a promising new candidate for president
- b. a surprising change in the number of sales
- c. a recent announcement at a staff meeting

4. Morning run

Why did the man look tired when he got to the park?

- a. He was out of breath from running to the park.
- b. He had already finished his morning run.
- c. He did not get enough sleep the night before.

5. Favorite things

Why did Josh's mom think he chose a guitar?

- a. It carried a special meaning.
- b. It used to be significant to him.
- c. It was more important than baseball cards.

6. Looking for a book

Why can the woman not find the book?

- a. It is on the wrong shelf.
- b. It has been checked out.
- c. It was labeled incorrectly.

7. Feeding the cat

What does the man suggest about feeding the cat?

- a. They should feed the cat now.
- b. They should wait to find out more.
- c. They should not feed the cat again.

8. Giving directions

Why was the woman unable to find the library?

- a. She had outdated information.
- b. The man was not sure where it was.
- c. The library had moved to a new location.

9. On medical leave

How does the woman describe Carolyn's condition?

- a. Carolyn has been working from home recently.
- b. Carolyn has been away longer than expected.
- c. Carolyn has been recovering gradually.

Part 2—Longer conversations

In this section you will hear longer conversations.

Before listening to each conversation, you will read 3 to 5 questions.

Listen to each conversation and answer the questions that appear in your test booklet.

10-12. A new job at a store

10. Which process has the most information?
- inventory
 - sales
 - closing
11. Why does the woman say inventory is an important process?
- The store monitors popular trends.
 - The store needs to reorder products.
 - The store is accountable for its stock.
12. What is one benefit of working late?
- Meals are provided.
 - Friends work together.
 - Employees get more money.

13-16. Dinner and a show

13. What did the woman say about the show?
- She could not buy tickets.
 - She would rather see a movie.
 - She wants to bring a friend along.
14. What was the woman's friend's response?
- She was upset that their plans had changed.
 - She was excited to attend the theater.
 - She thought they should reschedule their movie plans.
15. What is the man's opinion about the cheeseburger restaurant?
- It would be a cheaper option for dinner.
 - It is a new restaurant he has been wanting to try.
 - He thinks the woman would prefer to go there.
16. What does the woman suggest about the seafood restaurant?
- It might cost too much money to eat there.
 - They offer free parking for customers.
 - They could walk to the theater from the restaurant.

17-20. Joining a group

17. What did the woman recommend the man do a few weeks ago?
- a. focus on drawing
 - b. get more exercise
 - c. try joining a sports team
18. What makes the man NOT want to join the basketball team?
- a. the coach
 - b. the physical activity
 - c. the number of practices
19. What will the man do later today?
- a. talk to a classmate
 - b. watch a debate
 - c. try out for the volleyball team
20. How does the woman help the man?
- a. She invites him to go to an event with her.
 - b. She introduces him to a new friend.
 - c. She gives him a new idea.

Part 3—Extended discourse

In this section you will hear an extended monologue and an extended dialogue.

Before listening to each passage, you will read questions.

You will listen to the passage twice, and then you will answer a series of questions that appear in your test booklet.

21-31. School play

21. According to the teacher, what is a thespian?

- a. a student in a theater class
- b. a person who performs onstage
- c. any person who works in theater

22. Why does the teacher tell everyone to “appreciate stagehands”?

- a. The stagehands have a lot of lines to memorize.
- b. The stagehands do many jobs that go unnoticed.
- c. The stagehands have done a lot of preparation for this class.

23. Why does the teacher tell the students to use her first name?

- a. She has not officially been hired as a teacher yet.
- b. She wants everyone in theater to go by a nickname.
- c. The students have as much responsibility as she does.

24. Who are the students in this class?

- a. mostly people who are new to theater
- b. mostly people who have acted before
- c. mostly people who prefer to be stagehands

25. How does the teacher describe the play they will perform?

- a. It is about people learning to be actors.
- b. It requires a great deal of memorization.
- c. It has roles for many new actors and actresses.

26. Why does the teacher mention people running into each other on stage?

- a. It will be a funny part of the play.
- b. She once saw it happen in another play.
- c. It could happen if the students are not careful.

27. What does the teacher say needs to happen in order for the class to take a field trip?

- a. The principal needs to give permission.
- b. They need to be able to buy enough tickets.
- c. Their parents need to come along as chaperones.

28. Who will audition for the play?

- a. all the students in the theater class
- b. any student in the school who is interested
- c. theater students who would like to have a role

29. Why is it important that the practice scene has to be done on the stage?

- a. to help the students decide which role they want
- b. so that the teacher can see how well they perform
- c. in order to give each other enough time to practice

30. What will the teacher’s assistant discuss with the students?

- a. how best to memorize and practice scenes
- b. which student is assigned which role in the play
- c. what will be done by other students who do not act

31. What will probably happen next?

- a. The teacher will assign roles.
- b. Whoever is interested will audition.
- c. The students will pick up paper packets.

32-40. Renting a cabin

32. At the beginning of the conversation, what does the woman assume about the man?
- a. He plans to rent a cabin immediately.
 - b. He wants to change his reservation.
 - c. He did not understand the advertisement.
33. Why do some people want a cabin with only basic necessities?
- a. They want a simpler vacation.
 - b. They dislike modern technology.
 - c. They would rather spend less money.
34. Where are the cabins located?
- a. They are in a busy tourist area.
 - b. They are all near a lake in the woods.
 - c. They are scattered throughout the area.
35. How can visitors wash clothes at the cabins?
- a. by washing them manually
 - b. by using one of the shared laundry facilities
 - c. by renting one of the Convenience Plus cabins
36. Why is it a good idea for the man to bring food?
- a. The nearest store has limited hours.
 - b. Food in the nearby town is very expensive.
 - c. The nearest town is far from the cabins.
37. What best describes the man's level of experience with staying in a cabin?
- a. inexperienced
 - b. somewhat experienced
 - c. very experienced
38. What does the man need a license to do?
- a. rent a boat
 - b. stay in a cabin
 - c. catch fish
39. Why does the owner forbid motor boats on the lake?
- a. to maintain a peaceful environment
 - b. to ensure safety for swimming
 - c. to prevent commercial fishing
40. What will the man do next?
- a. talk to his friends
 - b. decide when to visit
 - c. learn more about the cabins

 This is the end of the listening test. Do not turn the page until you are told to do so.

Grammar you can use!

MSU-CELP Test of English Grammar

Instructions

- This grammar test has 40 questions.
- You have 25 minutes to answer all 40 questions. For each question, choose the **one best** answer.
- For each question, find the letter on the answer sheet that corresponds to the answer you have chosen. Use your pencil to completely fill in the circle for your answer.
- If you are not sure of the answer, take your best guess. Unanswered items will be scored as incorrect.
- You **are** allowed to write in the test booklet.

Example

Bob is a good student. He _____ every day.

- a. to study
- b. is study
- c. studies
- d. studying

The correct answer is c. You would mark “c” on your answer sheet.

 Do not turn the page
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41. I am still sleepy from the cold medicine. It must have remained _____ my system for longer than I thought.
a. into
b. around
c. in
d. throughout
42. I have not heard them arguing about their summer plans recently. I think they came to _____.
a. understandings
b. understand
c. an understanding
d. understanding
43. I do not really think I can beat the record for the 100-meter dash, but I am willing to try _____ I can!
a. harder than
b. hardly so
c. as hard as
d. hard enough that
44. The tomato crop is good this year. It has not _____ the drought.
a. been affecting
b. affected by
c. affected
d. been affected by
45. I test drove a lower-end car recently, and it greatly _____ my expectations.
a. was excessive
b. exceeded
c. was in excess of
d. exceedingly
46. I cannot believe he did not tip the driver! I guess he did not know _____.
a. the better
b. all better
c. any better
d. will be better
47. My mom wishes she _____ trees 15 years ago because they would be big by now.
a. will have planted
b. will have been planted
c. has planted
d. had planted
48. I am not eating that yogurt. The date on it says _____ good until last Tuesday.
a. only to be
b. it is only
c. it was only
d. only it was
49. You _____ want to take a raincoat. It looks like rain today.
a. might
b. could
c. ought to
d. should
50. Nicole continued to practice the piano _____ even after she had stopped taking lessons.
a. as she will
b. she will have
c. was willing to
d. willingly
51. _____ popular opinion, most rats do not carry diseases.
a. In contrast
b. On the contrary
c. Contrary to
d. Contrast
52. We _____ gas in town. It is more expensive here in the countryside.
a. must have gotten
b. better to get
c. should have gotten
d. needed to get
53. John asked about you. He _____ how your new job is going.
a. was wondering
b. will wonder
c. had wondered
d. has wondered
54. If you need help _____ something, just ask the store clerk.
a. by finding
b. that finds
c. finding
d. at finding

55. The strongest argument for the new school policy is _____ more students are graduating.
- a fact of
 - the fact of
 - in fact that
 - the fact that
56. Could you please tell the neighbor _____ to bring it inside?
- with barking dog
 - that dog is barking
 - whose dog is barking
 - which has a dog barking
57. _____ I saw the movie, I did not understand why everyone loved it so much.
- Since
 - Until
 - By the time
 - As soon as
58. The concert tickets are selling quickly. Now seating _____ only the balcony.
- is limiting
 - limits
 - is limited to
 - limited by
59. There is no need to tell Ingrid about the construction on that highway. She takes that route to work every day, so she _____ already know.
- might
 - can
 - must
 - cannot
60. The shoes are not currently in the warehouse but _____ as soon as they come in.
- ships
 - will ship
 - are shipping
 - will have shipped
61. Joey had the old tires _____ before he left on his road trip.
- replaced
 - were replaced
 - replacing
 - replace
62. Jackie wanted to apply for the internship, but by the time she heard about it, the deadline _____.
- has already passed
 - did pass
 - had already passed
 - passing
63. Bryan McAllister became an influential player in the music world almost overnight _____ in *The New York Times* last year.
- featuring his album
 - after his album was featured
 - when his album was featuring
 - his album had been featured
64. _____, the teacher would not do so again.
- Having already explained the assignment
 - The assignment to be explained
 - The assignment already explained by him
 - To already have explained
65. On impulse, they decided to enter the Battle of the Bands contest, _____ they won first place last year.
- what
 - where
 - at it
 - that
66. She inherited her love of goats from her grandfather, and _____ him, she spent all her free time as a kid in the barn.
- similar
 - just like
 - along
 - due
67. What would you tell your younger self _____ you are older and wiser?
- although
 - in fact
 - now that
 - as a result
68. After graduation, Erica _____ becoming a music instructor herself.
- began the work
 - began working on
 - was beginning
 - was beginning to work

69. If professional athletes can sell shoes and soft drinks, it's likely they _____ sell anything.
a. can pretty much
b. could be able
c. instead would
d. shall have to
70. _____ our last coach, this one is really nice.
a. While comparing
b. Compared
c. A comparison of
d. Compared to
71. If Hannah had known about the traffic delay, she would have left _____.
a. until now
b. before
c. advance
d. sooner
72. Be careful with written communication, because _____ you've sent a text or email, you can't delete it.
a. while
b. once
c. given
d. since
73. Look at my car door! It looks like it _____.
a. has been hit
b. has hit
c. is hit
d. been hit
74. Jenna's ancestry _____ traced back to a famous ancient queen.
a. being
b. will have
c. can be
d. has
75. If certain kinds of flowers _____, it is helpful for honeybees.
a. are plants
b. are planted
c. are planting
d. were planted
76. _____ going to the coffee shop, would you like to take a walk?
a. Rather
b. Opposed to
c. Instead of
d. Regarding
77. My mom liked the hybrid car, but decided to buy a _____ less expensive one.
a. very
b. moderate
c. real
d. slightly
78. The new office _____ on the second floor.
a. locates
b. located
c. is located
d. locate
79. The children think the parents should buy the large house with the pool, but their parents see _____ for such an expense.
a. a little reason
b. the littlest reason
c. less reasonable
d. little reason
80. People say the rumor about that singer is false. However, I suspect it's true _____.
a. in the extent
b. extensively
c. to some extent
d. and extended

You have now finished the grammar test. Please wait for further instructions.

Read about it!

MSU-CELP Test of English Reading Ability

Instructions

This reading test has four passages. Each passage is followed by several questions.

- You have 60 minutes to answer all 40 questions. For each question, choose the **one best** answer.
- For each question, find the letter on the answer sheet that corresponds to the answer you have chosen. Use your pencil to completely fill in the circle for your answer.
- If you are not sure of the answer, take your best guess. Unanswered items will be scored as incorrect.
- You **are** allowed to write in the test booklet.

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Reading Passage 1

You are planning a trip to the United States and are reading about some of the major cities. You see this passage in a travel book and decide to learn more about the city of Chicago.

Chicago

The familiar names for many northern and eastern cities in the US came from titles given by European settlers. For example, “New York,” was named after Britain’s “York,” and the name “Detroit” carries a French meaning that describes the land features there. Of particular pride for Chicago residents, though, is the fact that its name came from an indigenous word. The word “shikaakwa”, which comes from the language spoken by the Miami-Illinois people who originally lived in the area, is the name for a type of wild onion that once grew abundantly in the forests of what is now Chicago. This onion is commonly called a “ramp,” and is a much sought-after, savory relative of onions, leeks and garlic that is considered a delicacy. It is from this native word that the French settlers gave the current spelling to the city of Chicago.

Although the forests are now long gone, replaced with skyscrapers of concrete and steel, today a large and culturally diverse city lives and breathes on the shores of Lake Michigan where the shikaakwa plants once grew in abundance. Lake Michigan is one of the westernmost freshwater Great Lakes, and Chicago’s location here enabled its incredible growth through access to shipping both on the waterways and over land. With just under 10 million people in its metropolitan area, Chicago is the largest city in the US Midwest. It is the third largest city in the United States by population. Despite the fact that there are many cities throughout the world with at least twice the population size, Chicago ranks as the third largest city in the entire world by land area.

After the first permanent European settlers took root in the area in the late 1700s, Chicago experienced steady growth in the decades immediately following. Already a transportation hub because of its proximity to the Great Lakes and location in the Midwest US, Chicago’s growth exploded even more after the railroad networks were constructed in the mid to late 1800s. Some historians claim that at this time, Chicago was the fastest growing city in the world.

Chicago’s large population today is a direct result of this booming industrial period. Its growth throughout the 1800s led to one of Chicago’s most distinctive features: the unusual flow of the Chicago River. This river cuts through the center of the city and originally flowed out into Lake Michigan—but not without consequences. Increasing amounts of waste in the river began to pollute the lake, which is the main source of Chicago’s drinking water. Illnesses, many waterborne, were **running rampant** at the time, such as typhoid fever and cholera. Toward the end of the 19th century, Chicago undertook and succeeded in a major engineering project to alter the natural flow of the Chicago River. After digging a large canal, they reversed the river’s flow, resulting in the water going south into the Mississippi River and eventually emptying into the Gulf of Mexico. This impressive feat reinforced Chicago’s status as an advanced, modern industrial city.

Today, Chicago attracts many tourists with its museums, architecture, jazz and blues music, and its unique food, such as deep-dish pizza. Also, its residents are known for being **fervent** sports fans, having two professional baseball teams, while most large US cities have only one. Chicago is also known as the “Candy Capital” because as much as one-third of all candy in the US came from Chicago at one time. Currently, the city is a leader in the manufacturing, publishing, finance, and advertising industries. Having seen incredible growth in the last two centuries, Chicago has earned and maintained its place today as a modern world-class city.

81. Where did Chicago's name originally come from?
- the name of a city in Europe
 - a French word for forest plants
 - a word created by British settlers
 - a term in the language of native people
82. What can be inferred from Paragraph 1 about "ramp"?
- Native people probably liked to eat them.
 - Native people refused to trade them with settlers.
 - They were the reason that Europeans went there.
 - They have decreased in popularity since that time.
83. How does Chicago's size compare to other cities in the world?
- It has the most land area of any city in the US
 - It is the tenth largest city in the world by population.
 - Only two other cities in the world have a greater land area.
 - Its population is about twice the size of similar Midwestern cities.
84. Why did Chicago grow more quickly in the mid to late 1800s?
- the railroads
 - its land area
 - the Great Lakes
 - new settlements
85. Which of the following was a consequence of Chicago's population growth?
- Too many homes were built near the river.
 - The Chicago River began to pollute Lake Michigan.
 - Some industries relocated south along the Mississippi River.
 - Engineers needed to obtain drinking water from the Chicago River.
86. Which of the following is closest in meaning to **running rampant** in Paragraph 4?
- causing concern
 - spreading quickly
 - starting to develop
 - becoming dangerous
87. How did engineers change the Chicago River?
- They cleaned the water.
 - They dug it to be deeper.
 - They made it to be wider.
 - They changed its direction.
88. According to the article, what is a reason people visit Chicago?
- its river
 - its candy
 - its climate
 - its buildings
89. Which of the following is closest in meaning to **fervent** in Paragraph 5?
- picky
 - violent
 - athletic
 - enthusiastic
90. What is the main purpose of this article?
- to persuade people to visit Chicago
 - to learn from the mistakes of history
 - to explain Chicago's background
 - to share little-known secrets of Chicago

Reading Passage 2

The following article appeared in a weekly science magazine. Read it carefully and answer the questions that follow.

A new solution to the plastic problem

There is no denying that our Earth is polluted. From smog in the air to garbage in our oceans, we have not been good stewards of our planet. Cleaning up the planet can feel **daunting**. One of the most concerning issues at the forefront is that of plastic. Plastic is everywhere in modern life, from the hundreds of plastic toys our children have to the plastic forks in restaurant takeout to the plastic bags we get at the grocery store. What makes this so bad is that it takes somewhere between 400 and 1,000 years for it to biodegrade — or so scientists theorize. Unfortunately, it is hard to be precise because no one has been able to monitor it on such a large time scale. Despite its total immersion into today's way of life, modern plastic has been commonly used for less than one hundred years. It was invented in 1907 by Leo Baekeland, but it was not until the 1940s that it first started showing up in household items, and it was not terribly common before the 1960s. But since then, year after year, over one billion tons of plastic have been discarded in landfills, on our streets, and in the oceans. That is a lot of garbage that will be here for a very long time.

We must still be careful, though. So far, this process appears to only work on very thin types of plastic, and any effort to combat our current use of such plastics would have to be monumental. Such findings should not be seen as a free pass to increase plastic usage or stop trying to decrease plastic accumulation in the oceans.

There is hope on the horizon, though. Scientists at the University of Cambridge recently announced the discovery that a known caterpillar called *Galleria mellonella* can actually break down plastic. Commonly called the “wax moth” once it metamorphoses, this bug will eat holes in plastic bags as readily as its natural food source, beeswax. However, we cannot simply dump a ton of bugs in our landfills and expect them to take care of the problem. It will take a lot of work to find a solution large-scale enough to tackle our plastic castoffs. Dr. Paolo Bombelli of Cambridge explains, “This will be a starting point.” Once he and other researchers learn more about the process the plastic goes through in the caterpillar's digestive tract, the hope is that they will be armed with information to create a new process that will affect how we dispose of plastic. Most likely, the plastic disposal process has something to do with the internal body chemistry and ecology of microbes that are found naturally inside the caterpillar's digestive track. Once these processes and relationships are better understood, the hope is that they can be recreated and replicated, just without all the caterpillars.

91. Which of the following is closest in meaning to **daunting** in Paragraph 1?
- useless
 - overwhelming
 - confusing
 - alarming
92. Why is it difficult to estimate how long it takes plastic to break down?
- Different types of plastic require different amounts of time to break down.
 - Breaking down plastic depends on a lot of different environmental factors.
 - Plastic has been in use for less time than it takes to break down.
 - Scientists disagree on how long it takes to break down plastic.
93. How does the author characterize the development of plastic?
- It quickly became extremely popular.
 - Details of its development are not widely known.
 - It took many years to gain popularity.
 - It created about one billion tons of garbage in the 1960s.
94. Which of the following is closest in meaning to **There is hope on the horizon** in Paragraph 2?
- A recent discovery could be beneficial.
 - A big surprise is about to take place.
 - A clear solution is about to be released.
 - An alternative plan may be difficult to see.
95. What does Dr. Bombelli mean when he says, "This will be a starting point"?
- Not very much is currently known about the *Galleria* caterpillar.
 - More research is needed before final results are announced.
 - They hope the caterpillar will be able to eat additional types of waste.
 - More research needs to be done to find additional caterpillars for this project.
96. What step do scientists anticipate is next?
- discovering how to make more easily degradable plastic
 - decreasing the amount of plastic accumulation in our oceans
 - acquiring the ability to raise more caterpillars at an increased rate
 - figuring out how to replicate the chemical process
97. Why would putting wax moth caterpillars directly into landfills be ineffective?
- There is not enough beeswax in most landfills.
 - They only consume a limited range of plastic types.
 - They prefer food sources that are naturally occurring.
 - It is difficult to locate and capture wax moth caterpillars.
98. What warning do the researchers give?
- to not expect a monumental change in the environment right away
 - to continue increasing the use of some types of plastic over others
 - to not impede their efforts by decreasing plastic accumulation
 - to remain vigilant in efforts to use less plastic
99. Which of the following best summarizes the article?
- A type of moth may hold the key to disposing of plastic waste.
 - A new type of plastic degrades much faster than current plastics.
 - Scientists are trying to find new ways to use thin plastics.
 - Scientists have successfully replicated microbes that can clean up plastic pollution.
100. What was the author's purpose in writing this article?
- to persuade readers to start using a new product
 - to inform readers of a new scientific discovery
 - to warn readers of the problems of plastic pollution
 - to convince readers to join in a large-scale experiment

Reading Passage 3

The following article was recently published in a botany magazine. Read it carefully, and answer the questions that follow.

Plant cooperation

Symbiotic relationships between animals happen across the globe, both on land and in water. Take for example the crocodile—it has decaying bits of food in its mouth that would rot its teeth. It hangs out with its mouth open, and birds come and pick the food out—it's a meal for the bird and a help for the crocodile.

But this sort of pattern isn't limited to animals. New research shows that 90% of plants growing in the ground are in similar mutually beneficial relationships with fungi. The scientific community has known since the 1800s that many types of fungi live on the roots of plants. In the 1960s, we learned that plants were providing food to the fungus through its roots, while the fungus helped the plant extract water and certain nutrients out of the soil. This **reciprocity** can be seen in wild forests as well as our own home gardens. In recent years, scientists have discovered that the working relationship between land plants and fungi go far beyond this, to spreading information and even resources to other nearby organisms. In fact, there is an entire fascinating web of botanical communication underground.

Research professor Suzanne Simard of the University of British Columbia showed that two different types of trees, the paper birch, and the Douglas fir, can transfer carbon from one tree to another via the mycelia portion of a fungus on their roots. As we all know, plants need sunlight to photosynthesize carbon dioxide and water into sugar. Dr. Simard later went on to show that young trees growing in the shade that did not have enough carbon or sunlight could survive if planted close enough to donor trees. Those adult trees had carbon **stores** to spare, so they sent carbon and sugars to the young trees through the fungus in their roots.

While some scientists do question how much benefit these transfers actually provide, other scientists, including Ren Sen Zeng of China, are taking it a step further. He conducted an experiment on tomato plants. First, pairs of plants were allowed to form fungal networks. Next, half of each pair was infected with blight disease. The infected plants were covered in air-tight plastic bags so

that they could not release above-ground chemicals to the other plants to signal distress. Three days later, when the uninfected plants were exposed to blight, they were more resistant to it. Dr. Zeng believes the fungal networks allowed the healthy plants to be aware of the struggle going on with the infected plants and thereby proactively began an early defense against the blight it had not directly encountered.

Inter-plant relationships aren't always positive, though. Many trees, including the acacia tree, will release chemicals into the surrounding soil when they sense that resources are scarce. These chemicals make it difficult for other plants to be established. Don't let that ruin your love for acacia trees though—they do their part to help too. When animals come to eat their leaves, they emit a warning chemical into the air that causes other trees to increase toxins in their leaves to fend off the predators.

Next time you're digging in your home garden, look closely at plant roots and see if you can spot any fungus. Think about how certain plants might be benefitting from others nearby. Consider running some experiments of your own if you have the space, seeing if some of your sun-loving plants can make it in the shade if they're close enough to other plants that might share resources. If you see evidence of what we've discussed here, send us a picture and you just might see it in next month's edition!

101. Why does the author first mention birds and crocodiles?
- to present new research findings
 - to explain how animals depend on plants
 - to introduce a similar occurrence with plants
 - to suggest a connection with past research
102. What have scientists recently discovered?
- Many plants have fungus on their roots.
 - Plants can share resources via fungi.
 - Fungus helps a plant's roots to acquire nutrients.
 - Some plants' fungi make it difficult for others to grow.
103. Which of the following is closest in meaning to **reciprocity** in Paragraph 2?
- purposeful communication
 - trading assistance
 - shared defense
 - plant diversity
104. Which of the following is closest to **stores** in Paragraph 3?
- cells
 - reserves
 - provisions
 - purchases
105. What can young trees get from other trees?
- nutrients
 - water
 - access to light
 - fungus
106. What was the purpose of the plastic bags in the tomato plant experiment?
- They promoted fungal growth for one plant.
 - They limited the plants' carbon dioxide intake.
 - They prevented information from being shared.
 - They kept the sick plants warmer than normal.
107. What happened when Dr. Zeng introduced blight to the uncovered tomato plants?
- The disease had already been passed on by other plants.
 - The disease was stronger than it had been before.
 - The plants died more quickly from the disease.
 - The plants were ready to resist the disease.
108. Why do acacia trees release a harmful substance?
- in order to spread disease among competitors
 - in order to prevent infections in their roots
 - in order to prevent fungi from taking their carbon
 - in order to save limited resources for themselves
109. What does the author suggest readers do?
- look for evidence of plant relationships
 - start their own home gardens
 - research this topic more on their own
 - submit articles to the magazine
110. What would be a good title for this article?
- How to Grow Mutually Beneficial Plants
 - How Plants Can Help or Hurt Their Neighbors
 - Symbiotic Relationships in Plants and Animals
 - Older Trees Are Helping Younger Trees to Grow

Reading Passage 4

The following article was published on an arts appreciation website. Read it carefully, and answer the questions that follow.

Understanding Picasso

Pablo Picasso was arguably one of the most well-known and influential artists of the 20th century. His art is recognized and studied the world over, yet to understand the art, one must first know more about the artist himself.

Born in Spain in 1881, Pablo Picasso grew up watching his father create art. Jose Ruizy Blasco was not only an artist **in his own right**, but also a museum curator and a professor at a school for fine arts. He started teaching Pablo drawing and painting at age seven. It is said that when Pablo was just 13 years old, his father found him painting on one of his own art pieces, and, discovering that Pablo was indeed better than himself, vowed never to paint again. When Jose convinced officials to allow his son to take an entrance exam to a well-known art school at the young age of 13, he completed a required month-long art project in under a week and was admitted immediately.

Perhaps because creating art came so naturally to him, or perhaps because he was already so advanced, he had a hard time following teachers' instructions and did not do well in class—in fact, he rarely attended and preferred instead to work on art as he wished. He started out as a naturalist, drawing things as they appeared in real life. Within a year he'd painted *The First Communion* (1896) and *Portrait of Aunt Pepa* (1897), which art critics **tout** as one of the most important in Spanish art history. He then started experimenting in different genres, trying out a myriad of different techniques. A recognizable shift from Realism to Symbolism appeared, as he studied paintings with more mythological references and dream imagery. He spent a period of time trying several different methods, following certain artists or their theories. He moved to Paris, then the **hub** of new types of artistic expression. It was harder than he expected and he struggled. For a time he shared an apartment with a friend by working at night and sleeping during the day while his friend did the opposite, in order to share the small space. Picasso even took to burning much of his early work in the fire to stay warm—paintings the world will never know.

He continued moving around, meeting new artists, and trying out their styles. Next came his famous Blue Period, in which he painted mostly with shades of blue to keep his expression of the poor and destitute purposely free of sunshine and hope. From there, he moved into his Rose Period, where pinks and oranges lightened his tone and his art took a happier turn for a while. Picasso painted acrobats and circus people—images that gave people joy.

Pablo Picasso continued on through many periods, keeping with the times and later creating new styles himself. He was constantly changing, experimenting, finding new ways to make impressions. A lesser-known fact is that he even spent time as a sculptor and then as a member of the Russian Ballet. He had strong political views that often clashed with the status quo, and he sought to influence the world around him in whatever genre he could. For the most part, the world around him disagreed with his affiliation with communism, but turned a blind eye to his extreme views in order to continue enjoying his art.

So the next time that you see a Picasso hanging in a museum or depicted in an art book, consider Picasso's constantly changing style and desire for spreading messages, and see if you can look deeper into his art.

111. Which of the following is closest in meaning to **in his own right** in Paragraph 2?
- because he declared it to be true
 - because he was given the title officially
 - as a result of his skill and workmanship
 - due to meeting minimum standards in the art world
112. What effect did Picasso's art have on his father?
- His father decided to try painting as well.
 - His father wanted to return to school to study art.
 - His father was discouraged by Pablo's talent.
 - His father demanded that Pablo stop copying him.
113. What was Picasso's experience like in art school?
- He participated infrequently.
 - He tried out different styles and periods.
 - He took advanced classes as soon as he began.
 - His teachers encouraged him to work on art as he wished.
114. Which of the following is closest in meaning to **tout** in Paragraph 3?
- recommend
 - examine
 - discuss
 - claim
115. Which of the following is closest in meaning to **hub** in Paragraph 3?
- introduction
 - capitol
 - center
 - symbol
116. What best describes Picasso's paintings done before his Blue Period?
- Many are unknown because they were destroyed.
 - Some are limited to subjects done in pinks and oranges.
 - Some are full of mythological references and dream imagery.
 - Many are unrecognizable because his style changed so much.
117. What happened during Picasso's Rose Period?
- He depicted the poor with limited colors.
 - He focused on upbeat, positive themes.
 - He spent some time focused on painting gardens.
 - He lightened his tone in order to share a political message.
118. What was true about Picasso that not many people know today?
- He ran for political office.
 - He joined the Russian Ballet.
 - He preferred sculpting to painting.
 - He changed his style several times.
119. How did people respond to Picasso's political views?
- Many people chose to ignore his political views.
 - Many people protested against his political views.
 - Many people were influenced by his political views.
 - Many people were not interested in his political views.
120. What is the main idea of this article?
- how Pablo Picasso learned to paint
 - the world at the time of Pablo Picasso
 - why Pablo Picasso's art influenced the world
 - how Pablo Picasso's art changed over the years

**This is the end of the test.
You are not allowed to work
on previous sections. Please
wait for further instructions.**

Michigan State University
English Language Center