



PRAXIS STUDY COMPANION

Elementary Education Fundamentals: Science 8005

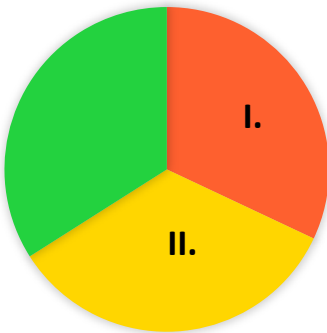


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Elementary Education Fundamentals: Science (8005)

Test at a Glance

Test Name	Elementary Education Fundamentals: Science			
Test Code	8005			
Time	90 minutes *Categories are not timed separately when taking the full test.			
Number of Questions	74 selected-response questions			
Format	The test consists of a variety of selected-response questions. You can review the question types in Understanding Question Types.			
Test Delivery	Computer Delivered			
	Content Categories	*Category Time	Approximate Number of Questions	Approximate Percentage of Examination
	I. Earth and Space Sciences	30 minutes	24	32%
	II. Life Sciences	30 minutes	25	34%
	III. Physical Sciences	30 minutes	25	34%
	Approximately 10-15% of the questions integrate a Science and Engineering Practice, and approximately 10-15% of questions integrate Tasks of Teaching Science.			

About The Test

The Elementary Education Fundamentals tests are designed to assess whether the entry-level elementary teacher has the content knowledge that is important, necessary, and needed at time of entry to the profession to teach reading, mathematics, social studies, and science at the elementary level. Each state may require one or more of the subject tests to support a generalist elementary school license.

The Elementary Education Fundamentals: Science test measures the knowledge and skills in science necessary for a beginning teacher of children in primary through upper elementary school grades. The 74 selected-response questions are based on material commonly covered in a bachelor's degree program in elementary education. The test content is grounded in the National Science Education Standards (NSES), the National Science Teaching Association (NSTA) standards, which include the Next Generation Science Standards (NGSS), and the CAEP K-6 Teacher Preparation Standards.

Test takers can expect ten to fifteen percent of the questions on the test to integrate science content knowledge with one or more of the Science and Engineering Practices (SEPs).

Test takers will also find that approximately ten to fifteen percent of questions call for application of science content and processes within a teaching scenario or an instructional task. Such questions—designed to measure applications of science knowledge to the kinds of decisions and evaluations a teacher must make during work with students, curriculum, and instruction—situate science content questions in tasks critical for teaching. Below, in Tasks of Teaching Science, is a list of tasks that are a routine part of science instruction. These tasks, identified based on research on science instruction, have been confirmed by a national committee of teachers and teacher educators as important for effective teaching of elementary science.

This test may contain some questions that will not count toward your score.

Praxis Steps: This test will be enabled with Praxis Steps modular testing capabilities shortly after launch. States that have adopted Praxis Steps for Elementary Education Fundamentals will allow you to take the full test and retake only the content category, or “Step,” that you did not pass. Or you can take one Step at a time, bank your results, and apply your highest Step results to your overall score. Check your [State Requirements](#) to see whether your state has adopted the tests with Praxis Steps.

On-Screen Scientific Calculator

An on-screen scientific calculator is provided for the computer-delivered test. Please consult the [Praxis Calculator Use web page](#) for further information.

You are expected to become familiar with the functionality of the calculator before taking the test. To practice using the calculator, [request access to it](#).

Using Your Calculator

Take time to [access the calculator and practice with it](#) so that you are comfortable using the calculator on the test.

For many questions, there is more than one way to solve the problem. Don't use the calculator if you don't need to; you may waste time.

Content Topics

This list details the topics that may be included on the test. All test questions cover one or more of these topics.

Note: The use of “e.g.” to start a list of examples implies that only a few examples are offered and that the list is not exhaustive, whereas the use of “i.e.” to start a list of examples implies that the given list of examples is complete.

Discussion Questions

In this section, discussion questions provide examples of content that may be included in the questions you receive on testing day. They are open-ended questions or statements intended to help test your knowledge of fundamental concepts and your ability to apply those concepts to classroom or real-world situations. Answers for the discussion questions are **not** provided; however, thinking about the answers will help improve your understanding of fundamental concepts and may help you answer a broad range of questions on the test. Most of the questions require you to combine several pieces of knowledge to formulate an integrated understanding and response. The questions are intended to help you gain increased understanding and facility with the test's subject matter. You may want to discuss these questions with a teacher or mentor.

I. Earth and Space Sciences

A. Physical and Historical Geology

1. Knows the basic structure of Earth
2. Understands the processes involved in rock and mineral formation
3. Understands the processes and effects of weathering, erosion, and deposition, including wind, water, ice, and vegetation
4. Understands the concepts of plate tectonics and the processes involved with earthquakes, volcanoes, and mountain building
5. Understands how geologic history can be learned by identifying patterns in rock formations and fossils in rock layers that relate to changes over time
6. Understands the human impact on land, water, air, and living things, and how to reduce negative human impacts

B. Hydrosphere and Atmosphere

1. Understands basic characteristics and processes in the ocean
2. Knows the distribution and characteristics of freshwater and salt water on Earth, including rivers, streams, lakes, polar ice, glaciers, and groundwater
3. Knows the basic structure and composition of Earth's atmosphere
4. Understands basic principles involved in weather conditions, including clouds, precipitation, storms, and tornadoes
5. Understands the basic distribution of climates in different regions of the world and variations due to seasons
6. Understands the effects of human use of renewable and nonrenewable natural resources

C. Astronomy

1. Understands patterns of motion in the solar system, including Earth's rotation on its axis, Earth's revolution around the Sun, the Moon's revolution around Earth, and the revolution of planets around the Sun
2. Understands the processes involved in solar eclipses, lunar eclipses, and phases of the Moon
3. Understands the effects of the Moon and the Sun on tides, and how Earth's tilt results in seasons
4. Knows the basic properties of objects in the solar system, including the Sun, planets, asteroids, and comets
5. Knows the basic structure of the universe, including galaxies, stars, and black holes

Discussion Questions: Earth and Space Sciences

- Describe the various layers of Earth.
- How are rocks and minerals formed?
- How are fossils formed?
- How does acid rain affect buildings that are made of limestone?
- What is the Ring of Fire and where is it located?
- How do volcanoes differ from earthquakes?
- How do the processes of plate tectonics affect Earth's surface?
- In what layer of the atmosphere is ozone found?
- What causes the seasons on Earth?
- What weather conditions tend to generate tornados?
- What is the effect of oceans on the climate on nearby geographical areas?

- How is the atmospheric pressure on very high mountains different from the atmospheric pressure at sea level?
- How do the Moon and the Sun affect ocean tides?
- How do the orbital times of various planets in our solar system vary?
- How do the Sun, Moon, and Earth align during solar eclipses?
- How do the planets in our solar system differ in composition and surface conditions?
- What are the differences between a galaxies, stars, comets, and black holes?

II. Life Sciences**A. Cells and Organization**

1. Understands the general structure and function of a cell and the structure and function of basic cell organelles
2. Understands the basic mechanisms of cell division
3. Understands the processes and purposes of photosynthesis and cellular respiration
4. Understands the organization of the human body, including tissues, organs, and systems

B. Genetics and Evolution

1. Understands basic patterns of inheritance, including genes, and understands that plants and animals have traits inherited from parents
2. Understands that variation of traits exists among individuals within a group of organisms and how variations provide advantages in surviving, finding mates, and reproducing

3. Understands the basic mechanisms of evolutionary theory, including natural selection

C. Classification and Characteristics of Organisms

1. Knows that organisms are classified within different groups based on shared characteristics, from the largest and broadest (kingdom) to smaller, more specific groups such as phylum, genus, and species
2. Knows the general characteristics of various organisms such as mammals, reptiles, amphibians, birds, insects, plants, and microscopic organisms, including bacteria

D. Plants

1. Understands the basic structure and function of plant structures, such as leaves, roots, stems, and flowers
2. Understands the fundamentals of plant reproduction and development, including the basic processes of pollination and seed dispersal
3. Understands the basic requirements for plant growth, including air, water, light, and nutrients
4. Understands the basic processes involved in the uptake and transport of nutrients and water

E. Animal and Human Anatomy and Physiology

1. Understands the basic structures and functions of the circulatory, respiratory, excretory, and digestive systems
2. Understands the basic structures and functions of the skeletal and muscular systems

3. Understands the basic structures and processes involved in reproduction, development, and growth
4. Understands the basic structures and functions of the immune, nervous, and endocrine systems

F. Ecology

1. Understands interspecies and intraspecies relationships such as parasitism, mutualism, competition, and predation
2. Knows the general characteristics of biomes such as tundras, coniferous forests, rainforests, grasslands, and deserts
3. Understands energy pyramids, food webs, and energy flow and nutrient cycling involving plants, animals, decomposers, and the environment
4. Understands the effects of human and natural environmental changes, including climate change, habitat destruction, pollution, and invasive species

Discussion Questions: Life Sciences

- What are the major components of cells, and what is the function of each of these?
- What is the purpose of cell division and how does it take place?
- What are dominant and recessive traits? Explain why two parents with brown eyes can have a child with blue eyes.
- Explain how populations of particular organisms diverge over time if they are reproductively isolated from each other.
- What are the major differences between members of the animal kingdom?
- What are the major characteristics and purposes of roots, stems, flowers, and leaves in plants?

- What are the major parts of the human circulatory system and their function?
- How do systems in the human body, such as the nervous system and the muscular system, work together?
- How do the circulatory and respiratory systems work together? Think of an example.
- How does the human body maintain a constant temperature?
- How is the biome that is known as tundra different from a desert?
- What is an example of mutualism?
- What is an example of an invasive species, and how does that species affect ecosystems?
- What is a food chain?

III. Physical Sciences

A. Structure and Properties of Matter

1. Knows properties of solids, liquids, and gases
2. Understands physical and chemical properties such as mass, density, volume, solubility, and conductivity
3. Knows the Celsius temperature scale
4. Understands that various materials have different melting points and boiling points
5. Distinguishes between elements, atoms, molecules, compounds, and mixtures

B. Relationship Between Energy and Matter

1. Understands conservation of energy and matter
2. Understands forms of energy such as potential and kinetic energy and how energy can be converted from one form to another
3. Knows chemical and physical properties of matter and that the total mass of matter stays the same when undergoing a physical or chemical change
4. Knows how heat is transferred by convection, radiation, and conduction, and understands aspects of the greenhouse effect
5. Understands phase changes, such as melting, freezing, sublimation, evaporation, and condensation

C. Chemical Reactions

1. Understands covalent and ionic bonding
2. Understands simple chemical formulas
3. Understands the energy changes that take place in chemical reactions
4. Understands basic properties of acids and bases and their relationship to the pH scale
5. Understands the basic concepts involving neutralization, oxidation, and combustion reactions

D. Mechanics

1. Understands the relationships between distance, speed, velocity, and acceleration
2. Understands the effects of balanced and unbalanced forces, including collisions, friction, and air resistance
3. Understands the concepts and effects of gravity, weight, and mass

4. Understands the tendency of an object to float or rise in a fluid when submerged (known as buoyancy)

E. Electricity, Magnetism, Waves, and Optics

1. Understands basic principles involving magnets, including poles, attraction, and repulsion
2. Understands electrostatic attraction and repulsion
3. Understands basic principles of electricity involving simple circuits, batteries, and generators
4. Understands basic concepts and phenomena involving light, including wave properties such as wavelength, frequency, amplitude, energy, and observations involving reflection, spectra, mirrors, and prisms
5. Understands basic models involving sound, such as waves, pitch, loudness, and the Doppler effect

- What kind of a bond exists between two atoms of hydrogen?
- During a chemical reaction, does the total mass remain constant?
- Why does a person's skin feel cooler when sweat evaporates?
- Can salt water be used to neutralize an acidic solution?
- What is the average speed of a car that travels 30 miles in 30 minutes?
- What is the difference between weight and mass?
- Describe a situation in which an object can have several forces acting on it and remain at rest.
- How do visible light waves differ from sound waves and water waves?
- What are the basic components of a simple electric circuit?
- How does a compass work?

Discussion Questions: Physical Sciences

- How are solids and liquid similar and how are they different?
- Can objects with different masses have different densities?
- How are isotopes of the same element alike, and how are they different?
- What are the major differences between a chemical change and a physical change?
- What is an example of process in which potential energy is changing into kinetic energy?
- What is an example of heat being transferred by convection?

Science and Engineering Practices

The SEPs represent eight practices that scientists and engineers—and students and teachers—use to investigate the world and to design and build systems. Many test questions will integrate one or more of these practices.

1. Asking questions (for science) and defining problems (for engineering)
2. Developing and using models
3. Planning and carrying out investigations
4. Analyzing and interpreting data
5. Using mathematics and computational thinking
6. Constructing explanations (for science) and designing solutions (for engineering)
7. Engaging in argument from evidence
8. Obtaining, evaluating, and communicating information

Tasks of Teaching Science

This list includes instructional tasks that teachers engage in that are essential for effective science teaching. Many test questions will measure content through application to one or more of these tasks.

1. Scientific Instructional Goals, Big Ideas, and Topics
2. Scientific Investigations and Demonstrations
3. Scientific Resources (texts, curriculum materials, journals, and other print and media-based resources)
4. Student Ideas (including common misconceptions, alternate conceptions, and partial conceptions)
5. Scientific Language, Discourse, Vocabulary, and Definitions
6. Scientific Explanations (includes claim, evidence, and reasoning)
7. Scientific Models and Representations (analogies, similes, metaphors, simulations, illustrations, diagrams, data tables, performances, videos, animations, graphs, and examples)

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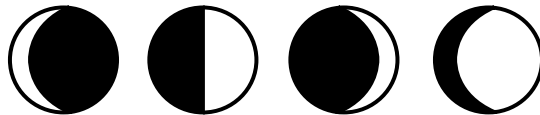
Sample Questions

The sample questions that follow represent a number of the types of questions and topics that appear on the test. They are not, however, representative of the entire scope of the test in either content or difficulty. Answers with explanations follow the questions.

Directions: Each of the questions or statements below is followed by suggested answers or completions. Select the one that is best in each case.

1. Which of the following geological processes adds new rock to the surface of Earth?

(A) Volcanic activity
(B) Glacial activity
(C) Soil erosion
(D) Weathering



2. When the Moon is viewed from the Northern Hemisphere at the first quarter of the lunar cycle, it appears like which of the preceding diagrams?

(A) 1
(B) 2
(C) 3
(D) 4

3. Which **THREE** of the following are ways in which mammals keep themselves warm in cold weather?

(A) Shivering
(B) Perspiring
(C) Fluffing out coat hair
(D) Contracting certain blood vessels

4. If a feather and two rocks of different weights are dropped simultaneously from a height of 5 meters in a vacuum, which of the following will be true?
- (A) Both rocks will hit the ground at the same time but before the feather.
 - (B) The heavier rock will hit the ground first.
 - (C) The lighter rock will hit the ground first.
 - (D) The feather and the two rocks will all hit the ground at the same time.
5. Which of the following lists the layers of Earth in correct order, from the innermost to the outermost?
- (A) Inner core, outer core, mantle, lithospheric crust
 - (B) Mantle, outer core, inner core, lithosphere crust
 - (C) Lithospheric crust, inner core, outer core, mantle
 - (D) Outer core, inner core, lithospheric crust, mantle
6. Which of the following identifies cell organelles that are the location of photosynthesis in plants?
- (A) Mitochondria
 - (B) Chloroplasts
 - (C) Cristae
 - (D) Central vacuoles
7. Which of the following is the broadest category in biological taxonomy?
- (A) Kingdom
 - (B) Order
 - (C) Genus
 - (D) Species

8. Some human traits are carried by genes on the Y chromosome. A man will transmit these traits to
- (A) one-half of his male offspring
 - (B) one-half of his female offspring
 - (C) all of his male offspring
 - (D) all of his female offspring
9. A chlorine compound is added to swimming pools in order to
- (A) monitor the pH of the water
 - (B) add color to the water
 - (C) soften the water by precipitating harmful chemicals
 - (D) destroy bacteria through an oxidation reaction
10. Two campers each wrap a potato in aluminum foil before baking them in a fire. However, one camper inserts a large nail into the potato after wrapping it in the foil. After the potatoes are placed in the fire, which of the following is most likely to happen?
- (A) Both potatoes will bake at the same rate.
 - (B) Neither potato will bake because the foil will reflect most of the heat.
 - (C) The potato with the embedded nail will bake faster because heat will be conducted through the nail into the potato.
 - (D) The potato with the embedded nail will bake more slowly because heat will be conducted out of the potato through the nail.
11. Due to the Sun's energy, the surface water on Earth continually evaporates into the atmosphere. Which of the following processes accounts for why sea levels do not decrease?
- (A) Transpiration
 - (B) Evaporation
 - (C) Condensation
 - (D) Precipitation

12. Which of the following is a chemical element?

- (A) Sodium chloride
- (B) Platinum
- (C) Carbon dioxide
- (D) Water

13. Of the following, which best describes an example of the Doppler effect?

- (A) As light passes through a prism, the light separates into a rainbow.
- (B) As a light beam passes from air into water, the beam changes direction.
- (C) As an emergency vehicle approaches an observer standing by the road, the perceived pitch of the siren increases.
- (D) As a sound wave hits a wall, it is reflected and creates an echo.

14. If a fire killed half of the population of mice in a deciduous forest, which of the following populations would be most directly affected?

- (A) Grasses
- (B) Butterflies
- (C) Hawks
- (D) Rabbits

15. Which of the following is the largest ocean on Earth?

- (A) Atlantic
- (B) Indian
- (C) Pacific
- (D) Arctic

16. Which of the following is a function of the skeletal system?

- (A) Digesting food
- (B) Carrying messages
- (C) Protecting organs
- (D) Eliminating waste products

17. Which of the following best describes the Sun?

- (A) A planet
- (B) A galaxy
- (C) A star
- (D) A nebula

18. Which of the following best describes how an ionic bond forms?

- (A) When valence electrons from one atom are transferred to another atom
- (B) When an electron is removed from an atom to form a negative ion
- (C) When valence electrons are shared between two or more atoms
- (D) When valence electrons form a cloud around the positive ion

19. Which of the following is a unit of current in an electrical circuit?

- (A) Volt
- (B) Joule
- (C) Ampere
- (D) Newton

20. Which of the following parts of a plant are primarily responsible for reproduction?

- (A) Flowers
- (B) Stems
- (C) Roots
- (D) Leaves

Answers

1. Option (A) is correct. Volcanic activity is the only process in which material from inside Earth is brought to the surface. The other processes are means of wearing down Earth's surface.

Topic	I. Earth and Space Sciences
Subtopic	A. Physical and Historical Geology

2. Option (B) is correct. At the first lunar quarter, the Sun, the Earth, and the Moon form a right triangle, with Earth at the right angle, so that the half of the Moon facing Earth appears half illuminated and half dark. When viewed from the Northern Hemisphere, the right half of the Moon will appear illuminated.

Science and Engineering Practice	2. Developing and using models
Task of Teaching Science	7. Scientific Models and Representations (analogies, similes, metaphors, simulations, illustrations, diagrams, data tables, performances, videos, animations, graphs, and examples)
Topic	I. Earth and Space Sciences
Subtopic	C. Astronomy

3. Options (A), (C), and (D) are correct. Shivering produces heat. Fluffing out coat hair provides insulation and helps to retain body heat. Contracting certain blood vessels reduces blood flow to extremities and thus reduces heat loss.

Topic	II. Life Sciences
Subtopic	E. Animal and Human Anatomy and Physiology

4. Option (D) is correct. In a vacuum, the only external force acting on each of the objects would be the gravitational force of Earth. This gravitational force is equal to $M \times g$, where M the object's mass and g is the constant acceleration of gravity (9.8 meters per second squared). According to Newton's second law, the acceleration a of an object times its mass is equal to the external force acting on it. For this situation, Newton's second law gives $M \times a = M \times g$ or $a = g$. Thus, in a vacuum, all objects fall freely with the same constant acceleration g regardless of their mass.

Topic	III. Physical Sciences
Subtopic	D. Mechanics

5. Option (A) is correct. The layers of Earth are listed in order, from the innermost to the outermost, as follows: inner core, outer core, mantle, lithospheric crust.

Topic	I. Earth and Space Sciences
Subtopic	A. Physical and Historical Geology

6. Option (B) is correct. Chloroplasts are found in plant cells and are the location of photosynthesis.

Topic	II. Life Sciences
Subtopic	A. Cells and Organization

7. Option (A) is correct. In biological taxonomy, the broadest category is kingdom, followed by phylum, class, order, family, genus, and species.

Topic	II. Life Sciences
Subtopic	C. Classification and Characteristics of Organisms

8. Option (C) is correct. Human males generally have one X and one Y chromosome. Male offspring will only receive a Y chromosome from their father, while female offspring will only receive an X chromosome from their father. Therefore, genes on the Y chromosome are passed only to male offspring.

Science and Engineering Practice	2. Developing and using models
Task of Teaching Science	7. Scientific Models and Representations (analogies, similes, metaphors, simulations, illustrations, diagrams, data tables, performances, videos, animations, graphs, and examples)
Topic	II. Life Sciences
Subtopic	B. Genetics and Evolution

9. Option (D) is correct. Chlorine and certain chlorine-containing compounds are highly reactive oxidizing agents that are used as chemical disinfectants in a variety of situations, including the sanitation of swimming pools.

Topic	III. Physical Sciences
Subtopic	C. Chemical Reactions

10. Option (C) is correct. Although the aluminum foil will reflect some radiant energy, it will not significantly reduce the flow of energy by conduction. Because a nail is a good thermal conductor, heat will flow into the potato through the nail and bake the potato from the inside as well as from the outside. Thus, the potato with the embedded nail will bake faster.

Science and Engineering Practice	6. Constructing explanations (for science) and designing solutions (for engineering)
Task of Teaching Science	6. Scientific Explanations (includes claim, evidence, and reasoning)
Topic	III. Physical Sciences
Subtopic	B. Relationship Between Energy and Matter

11. Option (D) is correct. Although surface water evaporates into the atmosphere, water returns to oceans as various types of precipitation, such as snow or rain.

Topic	I. Earth and Space Sciences
Subtopic	B. Hydrosphere and Atmosphere

12. Option (B) is correct. Platinum is a chemical element found on the periodic table of elements. Its chemical symbol is Pt. Sodium chloride, carbon dioxide, and water are compounds that are each composed of combinations of two different elements.

Topic	III. Physical Sciences
Subtopic	A. Structure and Properties of Matter

13. Option (C) is correct. The Doppler effect can be observed as the source of a sound moves toward an observer at a fixed position and the successive sound waves arrive faster and faster at the observer's position, resulting in an increase in the frequency of the sound waves arriving at the observer's position. Because the pitch of a sound is proportional to the frequency, the perceived pitch of the sound increases as the vehicle approaches the observer.

Topic	III. Physical Sciences
Subtopic	E. Electricity, Magnetism, Waves, and Optics

14. Option (C) is correct. Since hawks are predators that feed on small animals such as mice, the hawks would have a smaller food supply.

Topic	II. Life Sciences
Subtopic	F. Ecology

15. Option (C) is correct. The Pacific Ocean is the largest ocean on Earth.

Topic	I. Earth and Space Sciences
Subtopic	B. Hydrosphere and Atmosphere

16. Option (C) is correct. One of the functions of the skeletal system is to protect organs.

Topic	II. Life Sciences
Subtopic	E. Animal and Human Anatomy and Physiology

17. Option (C) is correct. The Sun is a star.

Topic	I. Earth and Space Sciences
Subtopic	C. Astronomy

18. Option (A) is correct. Ionic bonds form between positive and negative ions after one or more valence electrons transfer from one atom to another atom, forming positive and negative ions.

Topic	III. Physical Sciences
Subtopic	C. Chemical Reactions

19. Option (C) is correct. The ampere is a unit of electrical current.

Topic	III. Physical Sciences
Subtopic	E. Electricity, Magnetism, Waves, and Optics

20. Option (A) is correct. Flowers are primarily responsible for reproduction.

Topic	II. Life Sciences
Subtopic	D. Plants

Understanding Question Types

The Praxis assessments include a variety of question types: constructed response (for which you write a response of your own); selected response, for which you select one or more answers from a list of choices or make another kind of selection (e.g., by selecting a sentence in a text or by selecting part of a graphic); and numeric entry, for which you enter a numeric value in an answer field. You may be familiar with these question formats from seeing them on other standardized tests you have taken. If not, familiarize yourself with them so that you won't have to spend time during the test figuring out how to answer them.

Understanding Selected-Response and Numeric-Entry Questions

For most questions you will respond by selecting an oval to choose a single answer from a list of answer choices.

However, interactive question types may also ask you to respond by doing the following.

- Selecting more than one choice from a list of choices.
- Typing in a numeric-entry box. When the answer is a number, you may be asked to enter a numerical answer. Some questions may have more than one entry box to enter a response. Numeric-entry questions typically appear on mathematics-related tests.
- Selecting parts of a graphic. In some questions, you will select your answers by selecting a location (or locations) on a graphic such as a map or chart, as opposed to choosing your answer from a list.
- Selecting sentences. In questions with reading passages, you may be asked to choose your answers by selecting a sentence (or sentences) within the reading passage.
- Dragging and dropping answer choices into targets on the screen. You may be asked to select answers from a list of choices and to drag your answers to the appropriate location in a table, paragraph of text, or graphic.
- Selecting answer choices from a drop-down menu. You may be asked to choose answers by selecting choices from a drop-down menu (e.g., to complete a sentence).

Remember that with every question, you will get clear instructions.

Understanding Constructed-Response Questions

Some tests include constructed-response questions, which require you to demonstrate your knowledge in a subject area by writing your own response to topics. Essay questions and short-answer questions are types of questions that call for a constructed response.

For example, an essay question might present you with a topic and ask you to discuss the extent to which you agree or disagree with the opinion stated. For such questions, you must support your position with specific reasons and examples from your own experience, observations, or reading.

Following are a few sample essay topics to review:

- *Brown v. Board of Education of Topeka*
 “We come then to the question presented: Does segregation of children in public schools solely on the basis of race, even though the physical facilities and other ‘tangible’ factors may be equal, deprive the children of the minority group of equal educational opportunities? We believe that it does.”
 - A. What legal doctrine or principle, established in *Plessy v. Ferguson* (1896), did the Supreme Court reverse when it issued the 1954 ruling quoted above?
 - B. What was the rationale given by the justices for their 1954 ruling?
- *In his self-analysis, Mr. Payton says that the better-performing students say small-group work is boring and that they learn more working alone or only with students like themselves. Assume that Mr. Payton wants to continue using cooperative learning groups because he believes they have value for all students.*
 - Describe **TWO** strategies he could use to address the concerns of the students who have complained.
 - Explain how each strategy suggested could provide an opportunity to improve the functioning of cooperative learning groups. Base your response on principles of effective instructional strategies.
- *“Minimum-wage jobs are a ticket to nowhere. They are boring and repetitive and teach employees little or nothing of value. Minimum-wage employers take advantage of people who need a job.”*
 - Discuss the extent to which you agree or disagree with this opinion. Support your views with specific reasons and examples from your own experience, observations, or reading.

Keep the following things in mind when you respond to a constructed-response question.

1. **Answer the question accurately.** Analyze what each part of the question is asking you to do. If the question asks you to describe or discuss, you should provide more than just a list.
2. **Answer the question completely.** If a question asks you to do three distinct things in your response, you should cover all three things for the best score. Otherwise, no matter how well you write, you will not be awarded full credit.
3. **Answer the question that is asked.** Do not change the question or challenge the basis of the question. You will receive no credit or a low score if you answer another question or if you state, for example, that there is no possible answer.
4. **Give a thorough and detailed response.** You must demonstrate that you have a thorough understanding of the subject matter. However, your response should be straightforward and should not be filled with unnecessary information.
5. **Take notes on scratch paper so that you don't miss any details.** Then you'll be sure to have all the information you need to answer the question.
6. **Reread your response.** Check that you have written what you intended to write. Do not leave sentences unfinished or omit clarifying information.

General Assistance For The Test

Praxis Interactive Practice Test

This full-length Praxis practice test lets you practice answering one set of authentic test questions in an environment that simulates the computer-delivered test.

- Timed just like the real test
- Correct answers with detailed explanations
- Practice test results for each content category

ETS provides a free interactive practice test with each test registration. You can learn more [here](#).

Doing Your Best

Strategy and Success Tips

Effective Praxis test preparation doesn't just happen. You'll want to set clear goals and deadlines for yourself along the way. Learn from the experts. Get practical tips to help you navigate your Praxis test and make the best use of your time. Learn more at [Strategy and Tips for Taking a Praxis Test](#).

Develop Your Study Plan

Planning your study time is important to help ensure that you review all content areas covered on the test. View a sample plan and learn how to create your own. Learn more at [Develop a Study Plan](#).

Helpful Links

[Ready to Register](#) – How to register and the information you need to know to do so.

[Disability Accommodations](#) – Testing accommodations are available for test takers who meet ETS requirements.

[PLNE Accommodations \(ESL\)](#) – If English is not your primary language, you may be eligible for extended testing time.

[What To Expect on Test Day](#) – Knowing what to expect on test day can make you feel more at ease.

[Getting Your Scores](#) – Find out where and when you will receive your test scores.

[State Requirements](#) – Learn which tests your state requires you to take.

[Other Praxis Tests](#) – Learn about other Praxis tests and how to prepare for them.



Visit our website to find test prep resources and
preparation materials to build confidence for test day:

<https://praxis.ets.org>



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