Welcome to The Praxis® Study Companion

Prepare to Show What You Know

You have been working to acquire the knowledge and skills you need for your teaching career. Now you are ready to demonstrate your abilities by taking a Praxis® test.

Using The Praxis Series® Study Companion is a smart way to prepare for the test so you can do your best on test day. This guide can help keep you on track and make the most efficient use of your study time.

The Study Companion contains practical information and helpful tools, including:

- An overview of the Praxis tests
- Specific information on the Praxis test you are taking
- A template study plan
- Study topics
- Practice questions and explanations of correct answers
- Test-taking tips and strategies
- Frequently asked questions
- Links to more detailed information

So where should you start? Begin by reviewing this guide in its entirety and note those sections that you need to revisit. Then you can create your own personalized study plan and schedule based on your individual needs and how much time you have before test day.

Keep in mind that study habits are individual. There are many different ways to successfully prepare for your test. Some people study better on their own, while others prefer a group dynamic. You may have more energy early in the day, but another test taker may concentrate better in the evening. So use this guide to develop the approach that works best for you.

Your teaching career begins with preparation. Good luck!

Know What to Expect

Which tests should I take?

Each state or agency that uses the Praxis tests sets its own requirements for which test or tests you must take for the teaching area you wish to pursue.

Before you register for a test, confirm your state or agency’s testing requirements at www.ets.org/praxis/states.

How are the Praxis tests given?

Praxis tests are given on computer. Other formats are available for test takers approved for accommodations (see page 43).
What should I expect when taking the test on computer?
When taking the test on computer, you can expect to be asked to provide proper identification at the test center. Once admitted, you will be given the opportunity to learn how the computer interface works (how to answer questions, how to skip questions, how to go back to questions you skipped, etc.) before the testing time begins. Watch the What to Expect on Test Day video to see what the experience is like.

Where and when are the Praxis tests offered?
You can select the test center that is most convenient for you. The Praxis tests are administered through an international network of test centers, which includes Prometric® Testing Centers, some universities, and other locations throughout the world.

Testing schedules may differ, so see the Praxis Web site for more detailed test registration information at www.ets.org/praxis/register.
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1. Learn About Your Test

Learn about the specific test you will be taking

Elementary Education: Multiple Subjects (5001)

Test at a Glance

<table>
<thead>
<tr>
<th>Test Name</th>
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<tbody>
<tr>
<td>Test Code</td>
<td>5001</td>
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<tr>
<td>Total Time</td>
<td>4.25 hours (four separately timed subjects)</td>
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<tr>
<td>Format</td>
<td>Selected-response and numeric-entry questions; on-screen scientific calculator provided</td>
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<td>Test Delivery</td>
<td>Computer delivered</td>
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<table>
<thead>
<tr>
<th>Subtests</th>
<th>Subject Test Length (Minutes)</th>
<th>Subject Test Length (Questions)</th>
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<tbody>
<tr>
<td>5002 Reading and Language Arts</td>
<td>90</td>
<td>80</td>
</tr>
<tr>
<td>5003 Mathematics</td>
<td>65</td>
<td>50</td>
</tr>
<tr>
<td>5004 Social Studies</td>
<td>50</td>
<td>55</td>
</tr>
<tr>
<td>5005 Science</td>
<td>50</td>
<td>50</td>
</tr>
</tbody>
</table>

About This Test

The purpose of the test is 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 English, mathematics, social studies, and science at the elementary level. The test is designed to support a generalist elementary school license.

This test may contain some questions that will not count toward your score.
Elementary Education:
Reading and Language Arts Subtest
(5002) Time: 90 minutes; Format: Selected response

<table>
<thead>
<tr>
<th>Reading and Language Arts Categories</th>
<th>Approximate Number of Questions</th>
<th>Approximate Percentage of Subtest</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Reading</td>
<td>38</td>
<td>47%</td>
</tr>
<tr>
<td>II. Writing, Speaking, and Listening</td>
<td>42</td>
<td>53%</td>
</tr>
<tr>
<td>Total</td>
<td>80</td>
<td>100%</td>
</tr>
</tbody>
</table>

About This Subtest

The Elementary Education: Reading and Language Arts Subtest is designed for prospective teachers of children in primary through upper elementary school grades. The 80 selected-response questions focus on the broad knowledge of language arts and related competencies necessary to be licensed as a beginning teacher at the elementary school level. Job analysis statements used to develop the content of this test were developed by a National Advisory Committee (NAC) consisting of expert elementary teachers and educators. The statements were confirmed by a job survey of reading and language arts teachers, including reading specialists familiar with the Common Core State Standards (CCSS) and elementary education educators in higher education. The NAC drafted the test specifications based on the results of the job survey.

The test includes single-selection multiple-choice items with four options and a minimum of four innovative item types, such as multiple selection, order matching, and grids.

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

Topics Covered

I. Reading

A. Foundational Skills

1. Understands the role of phonological awareness in literacy development
   a. Explains the importance of phonological awareness as a foundational skill for literacy development
   b. Identifies and provides examples of phonemes, syllables, onsets, and rimes
   c. Identifies and provides examples of blending, segmenting, substituting, and deleting phonemes, syllables, onsets, rimes

2. Understands the role of phonics and word analysis in literacy development
   a. Explains the importance of phonics and word analysis in literacy development
   b. Distinguishes among common letter-sound correspondences and spelling conventions
   c. Distinguishes high-frequency sight words from decodable words appropriate for particular grades
   d. Identifies roots and affixes to decode unfamiliar words
   e. Recognizes various stages of language acquisition (e.g., WIDA taxonomy)
   f. Delineates common phonics and word-recognition approaches for ELLs (pedagogy)
   g. Differentiates syllabication patterns (e.g., open, closed, CVe)
3. Understands the role of fluency in literacy development
   a. Defines fluency and related terms (e.g., accuracy, rate, prosody)
   b. Explains the impact of fluency on comprehension

B. Literature and Informational Texts
   1. Understands how to use key ideas and details to comprehend literature and informational text
      a. Identifies the key details, moral, and/or theme of a literary text, citing specific textual evidence
      b. Identifies the key details and/or central idea of an informational text, citing specific textual evidence
      c. Makes inferences from a text and supports them with appropriate evidence
      d. Summarizes information from a text
      e. Analyzes the characters, setting, and plot of a literary text
      f. Analyzes the relationships among individuals, events, ideas, and concepts in an informational text
   2. Understands how to use key ideas and details to comprehend literature and informational text
      a. Identifies structural elements of literature across genres (e.g., casts of characters and stage directions in drama, rhyme and meter in poetry)
      b. Uses text features (e.g., headings, sidebars, hyperlinks) to locate information in a print or digital informational text
      c. Identifies organizational structures of informational text (e.g., cause/effect, problem/solution)
      d. Identifies how structural elements contribute to the development of a literary text as a whole
   3. Understands the concept of point of view using evidence from the text
      a. Identifies author’s point of view in various genres and supports conclusions with evidence from the text
      b. Compares multiple accounts of the same event or topic to identify similarities or differences in point of view
      c. Identifies how point of view impacts the overall structure of a literary or informational text
   4. Understands how to integrate and compare written, visual, and oral information from texts and multimedia sources
      a. Explains how visual and oral elements enhance the meaning and effect of a literary text (e.g., picture book, graphic novel, multimedia presentation of a folktale)
      b. Compares the written version of a literary text with an oral, staged, or filmed version
      c. Compares two or more literary texts that address the same theme
      d. Compares two or more informational texts that address the same topic
      e. Interprets visual and multimedia elements in literary and informational texts
      f. Evaluates key claims in a text and supports them with reasons and evidence from the text
   5. Knows the role of text complexity in reading development
      a. Explains the three factors (i.e., quantitative, qualitative, and reader and task) that measure text complexity
      b. Identifies features of text-leveling systems
II. Writing, Speaking, and Listening

A. Writing

1. Understands the characteristics of common types of writing
   a. Distinguishes among common types of writing (e.g., opinion/argument, informative/explanatory, narrative)
   b. Identifies the purpose, key components, and subgenres (e.g., speeches, advertisements, narrative poems) of each common type of writing
   c. Evaluates the effectiveness of writing samples of each type

2. Understands the characteristics of effective writing
   a. Evaluates the appropriateness of a particular piece of writing for a specific task, purpose, and audience
   b. Evaluates the development, organization, or style of a piece of writing
   c. Identifies appropriate revisions to strengthen a piece of writing
   d. Writes clearly and coherently
   e. Identifies the interrelationships among planning, revising, and editing in the process of writing

3. Knows the developmental stages of writing (e.g., picture, scribble)
   a. Identifies the grade-appropriate continuum of student writing

4. Knows the importance of digital tools for producing and publishing writing and for interacting with others
   a. Identifies the characteristics and purposes of a variety of digital tools for producing and publishing writing
   b. Identifies the purposes of a variety of digital tools for interacting with others

5. Knows the research process
   a. Identifies the steps in the research process
   b. Distinguishes between primary and secondary sources and their uses
   c. Distinguishes between reliable and unreliable sources
   d. Distinguishes between paraphrasing and plagiarizing

B. Language

1. Knows the conventions of standard English grammar, usage, mechanics, and spelling when writing, speaking, reading, and listening
   a. Explains the function of different parts of speech
   b. Corrects errors in usage, mechanics, and spelling
   c. Identifies examples of different sentence types (e.g., simple, compound, compound-complex)
   d. Identify how varieties of English (e.g., dialects, registers) used in stories, dramas, or poems support the overall meaning

2. Understands how to determine the meaning of words and phrases
   a. Determines the literal meaning of unknown words and phrases from context, syntax, and/or knowledge of roots and affixes
   b. Identifies types of figurative language
   c. Interprets figurative language
   d. Analyzes the relationship between word choice and tone in a text

3. Understands characteristics of conversational, academic, and domain-specific language
   a. Differentiates among the three tiers of vocabulary
   b. Identifies relevant features of language such as word choice, order, and punctuation

C. Speaking and Listening

1. Knows the characteristics of effective collaboration to promote comprehension
   a. Identifies techniques to communicate for a variety of purposes with diverse partners
   b. Identifies the characteristics of active listening

2. Knows the characteristics of engaging oral presentations
   a. Identifies elements of engaging oral presentations (e.g., volume, articulation, awareness of audience)
Elementary Education: Mathematics Subtest
(5003) Time: 65 minutes; Format: Selected response and numeric entry; on-screen scientific calculator provided

<table>
<thead>
<tr>
<th>Mathematical Categories</th>
<th>Approximate Number of Questions</th>
<th>Approximate Percentage of Subtest</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Numbers and Operations</td>
<td>20</td>
<td>40%</td>
</tr>
<tr>
<td>II. Algebraic Thinking</td>
<td>15</td>
<td>30%</td>
</tr>
<tr>
<td>III. Geometry and Measurement, Data, Statistics, and Probability</td>
<td>15</td>
<td>30%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>50</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

About This Subtest

The Elementary Education: Mathematics Subtest is designed for prospective teachers of children in primary through upper elementary school grades. The 50 questions focus on the broad knowledge of mathematics and related competencies necessary to be licensed as a beginning teacher at the elementary school level.

The test is not designed to be aligned with any particular school mathematics curriculum, but it is intended to be consistent with the recommendations of national studies on mathematics education, such as the National Governors Association Center for Best Practices and the Council of Chief State School Officers Common Core State Standards in Mathematics (2010), the National Council of Teachers of Mathematics (NCTM) and the National Council for Accreditation of Teacher Education (NCATE) NCTM NCATE Standards (2012), and the NCTM Principles and Standards for School Mathematics (2000).

The test includes selected-response questions, such as single-selection multiple-choice questions with four choices and multiple selection multiple-choice questions, and numeric entry questions.

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

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 know how and when to use the scientific calculator since it will be helpful for some questions. You are expected to become familiar with its functionality before taking the test. To practice using the calculator, download the 30-day trial version and view tutorials on how to use it. The calculator may be used to perform calculations, such as exponents, roots, and percents.

Using Your Calculator

Take time to download the 30-day trial version of the calculator. View the tutorials on the website. Practice with the calculator so that you are comfortable using it on the test.

There are only some questions on the test for which a calculator is helpful or necessary. First, decide how you will solve a problem, then determine if you need a calculator. 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.
Sometimes answer choices are rounded, so the answer that you get might not match the answer choices in the question. Since the answer choices are rounded, plugging the choices into the question might not produce an exact answer.

Don’t round any intermediate calculations. For example, if the calculator produces a result for the first step of a solution, keep the result in the calculator and use it for the second step. If you round the result from the first step and the answer choices are close to each other, you might choose the incorrect answer.

Read the question carefully so that you know what you are being asked to do. Sometimes a result from the calculator is NOT the final answer. If an answer you get is not one of the choices in the question, it may be that you didn’t answer the question being asked. Read the question again. It might also be that you rounded at an intermediate step in solving the problem.

Think about how you are going to solve the question before using the calculator. You may only need the calculator in the final step or two. Don’t use it more than necessary.

Check the calculator modes (floating decimal versus scientific notation) to see that these are correct for the question being asked.

Make sure that you know how to perform the basic arithmetic operations and calculations (e.g., exponents, roots).

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**Topics Covered**

I. **Numbers and Operations**

A. **Understands the place value system**
   1. Writes numbers using base-10 numerals, number names, and expanded form
   2. Composes and decomposes multi-digit numbers
   3. Given a digit, identifies the place the digit is in and its value in that place
   4. Recognizes that a digit in one place represents ten times what it represents in the place to its right and one-tenth what it represents in the place to its left, and extends this recognition to several places to the right or left
   5. Uses whole-number exponents to denote powers of 10
   6. Rounds multi-digit exponents to denote powers of 10

B. **Understands operations and properties of rational numbers**
   1. Solves multistep mathematical and real-world problems using addition, subtraction, multiplication, and division of rational numbers
   a. Identifies different problem situations for the operations (e.g., adding to, taking from, putting together, taking apart, and comparing for subtraction)
   b. Uses the relationship between addition and subtraction and the relationship between multiplication and division to solve problems (e.g., inverse operations)
   c. Interprets remainders in division problems
   2. Understands various strategies and algorithms used to perform operations on rational numbers
   3. Recognizes concepts of rational numbers and their operations
      a. Identifies examples where multiplication does not result in a product greater than both factors and division does not result in a quotient smaller than the dividend
      b. Composes and decomposes fractions, including the use of unit fractions.
      c. Recognizes that the value of a unit fraction decreases as the value of the denominator increases
      d. Recognizes that the same whole must be used when comparing fractions
4. Solves problems using the order of operations, including problems involving whole number exponents
5. Identifies properties of operations (e.g., commutative, associative, distributive) and uses them to solve problems
6. Represents rational numbers and their operations in different ways
   a. Uses, interprets, and explains concrete models or drawings of the addition, subtraction, multiplication, and division of rational numbers
   b. Represents rational numbers and sums and differences of rational numbers on a number line
   c. Illustrates and explains multiplication and division problems using equations, rectangular arrays, and area models
7. Compares, classifies, and orders rational numbers
8. Converts between fractions, decimals, and percents

C. Understands proportional relationships and percents
   1. Applies the concepts of ratios and unit rates to describe relationships between two quantities
   2. Understands percent as a rate per 100
   3. Solves unit-rate problems
   4. Uses proportional relationships to solve ratio and percent problems

D. Knows how to use basic concepts of number theory
   1. Identifies and uses prime and composite numbers
   2. Finds factors and multiples of numbers

E. Knows a variety of strategies to determine the reasonableness of results
   1. Recognizes the reasonableness of results within the context of a given problem
   2. Uses mental math, estimation, and rounding strategies to solve problems and determine reasonableness of results

II. Algebraic Thinking

A. Knows how to evaluate and manipulate algebraic expressions, equations, and formulas
   1. Differentiates between algebraic expressions and equations
   2. Adds and subtracts linear algebraic expressions
   3. Uses the distributive property to generate equivalent linear algebraic expressions
   4. Evaluates simple algebraic expressions (i.e., one variable, binomial) for given values of variables
   5. Uses mathematical terms to identify parts of expressions and describe expressions
   6. Translates between verbal statements and algebraic expressions or equations (e.g., the phrase "the number of cookies Joe has is equal to twice the number of cookies Sue has" can be represented by the equation $j = 2s$)
   7. Uses formulas to determine unknown quantities
   8. Differentiates between dependent and independent variables in formulas

B. Understands the meanings of the solutions to linear equations and inequalities
   1. Solves multistep one-variable linear equations and inequalities
   2. Interprets solutions of multistep one-variable linear equations and inequalities (e.g., graphs the solution on a number line, states constraints on a situation)
   3. Uses linear relationships represented by equations, tables, and graphs to solve problems

C. Knows how to recognize and represent patterns (e.g., number, shape)
   1. Identifies, extends, describes, or generates number and shape patterns
   2. Makes conjectures, predictions, or generalizations based on patterns
   3. Identifies relationships between the corresponding terms of two numerical patterns (e.g., find a rule for a function table)
III. Geometry and Measurement, Data, Statistics, and Probability

A. Understands how to classify one-, two-, and three-dimensional figures
1. Uses definitions to identify lines, rays, line segments, parallel lines, and perpendicular lines
2. Classifies angles based on their measure
3. Composes and decomposes two- and three-dimensional shapes
4. Uses attributes to classify or draw polygons and solids

B. Knows how to solve problems involving perimeter, area, surface area, and volume
1. Represents three-dimensional figures with nets
2. Uses nets that are made of rectangles and triangles to determine the surface area of three-dimensional figures
3. Finds the area and perimeter of polygons, including those with fractional side lengths
4. Finds the volume and surface area of right rectangular prisms, including those with fractional edge lengths
5. Determines how changes to dimensions change area and volume

C. Knows the components of the coordinate plane and how to graph ordered pairs on the plane
1. Identifies the x-axis, the y-axis, the origin, and the four quadrants in the coordinate plane
2. Solves problems by plotting points and drawing polygons in the coordinate plane

D. Knows how to solve problems involving measurement
1. Solves problems involving elapsed time, money, length, volume, and mass
2. Measures and compares lengths of objects using standard tools
3. Knows relative sizes of United States customary units and metric units
4. Converts units within both the United States customary system and the metric system

E. Is familiar with basic statistical concepts
1. Identifies statistical questions
2. Solves problems involving measures of center (mean, median, mode) and range
3. Recognizes which measure of center best describes a set of data
4. Determines how changes in data affect measures of center or range
5. Describes a set of data (e.g., overall patterns, outliers)

F. Knows how to represent and interpret data presented in various forms
1. Interprets various displays of data (e.g., box plots, histograms, scatterplots)
2. Identifies, constructs, and completes graphs that correctly represent given data (e.g., circle graphs, bar graphs, line graphs, histograms, scatterplots, double bar graphs, double line graphs, box plots, and line plots/dot plots)
3. Chooses appropriate graphs to display data

G. Is familiar with how to interpret the probability of events
1. Interprets probabilities relative to likelihood of occurrence
Elementary Education: Social Studies Subtest

(5004) Time: 50 minutes; Format: Selected response

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<th>Social Studies Categories</th>
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<tbody>
<tr>
<td>I. United States History, Government, and Citizenship</td>
<td>25</td>
<td>45%</td>
</tr>
<tr>
<td>II. Geography, Anthropology, and Sociology</td>
<td>16</td>
<td>30%</td>
</tr>
<tr>
<td>III. World History and Economics</td>
<td>14</td>
<td>25%</td>
</tr>
<tr>
<td>Total</td>
<td>55</td>
<td>100%</td>
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</table>

About This Subtest

The Elementary Education: Multiple Subjects: Social Studies subtest is designed to assess whether an examinee has the broad knowledge and competencies necessary to be licensed as a beginning teacher at the elementary school level. The 55 selected-response questions are based on the material typically covered in a bachelor’s degree program in elementary education.

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

Topics Covered

I. United States History, Government, and Citizenship
   A. Knows European exploration and colonization in United States history and growth and expansion of the United States
   B. Knows about the American Revolution and the founding of the nation in United States history
   C. Knows the major events and developments in United States history from founding to present (e.g., westward expansion, industrialization, Great Depression)
   D. Knows about twentieth-century developments and transformations in the United States (e.g., assembly line, space age)
   E. Understands connections between causes and effects of events
   F. Understands the nature, purpose, and forms (e.g., federal, state, local) of government
   G. Knows key documents and speeches in the history of the United States (e.g., United States Constitution, Declaration of Independence, Gettysburg Address)
   H. Knows the rights and responsibilities of citizenship in a democracy

II. Geography, Anthropology, and Sociology
   A. Knows world and regional geography (e.g., spatial terms, places, regions)
   B. Understands the interaction of physical and human systems (e.g., how humans change the environment, how the environment changes humans, importance of natural and human resources)
   C. Knows the uses of geography (e.g., apply geography to interpret past, to interpret present, to plan for future)
   D. Knows how people of different cultural backgrounds interact with their environment, family, neighborhoods, and communities

III. World History and Economics
   A. Knows the major contributions of classical civilizations (e.g., Egypt, Greece, Rome)
   B. Understands twentieth-century developments and transformations in world history
   C. Understands the role of cross-cultural comparisons in world history instruction
   D. Knows key terms and basic concepts of economics (e.g., supply and demand, scarcity and choice, money and resources)
   E. Understands how economics affects population, resources, and technology
   F. Understands the government’s role in economics and the impact of economics on government
Step 1: Learn About Your Test

Elementary Education: Science Subtest
(5005) Time: 50 minutes; Format: Selected response; on-screen scientific calculator provided

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<th>Science Categories</th>
<th>Approximate Number of Questions</th>
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<tbody>
<tr>
<td>I. Earth Science</td>
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<td>32%</td>
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<tr>
<td>II. Life Science</td>
<td>17</td>
<td>34%</td>
</tr>
<tr>
<td>III. Physical Science</td>
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<td>34%</td>
</tr>
<tr>
<td>Total</td>
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<td>100%</td>
</tr>
</tbody>
</table>

About This Subtest
The Elementary Education: Multiple Subjects: Science subtest is designed to assess whether an examinee has the broad knowledge and competencies necessary to be licensed as a beginning teacher at the elementary school level. The 50 selected-response questions are based on the material typically covered in a bachelor’s degree program in elementary education.

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

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, download the 30-day trial version and view tutorials on how to use it.

Using Your Calculator
Take time to download the 30-day trial version of the calculator. View the tutorials on the website. Practice with the calculator so that you are comfortable using it 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.

Topics Covered

I. Earth Science
   A. Understands the structure of the Earth system (e.g., structure and properties of the solid Earth, the hydrosphere, the atmosphere)
   B. Understands processes of the Earth system (e.g., processes of the solid Earth, the hydrosphere, the atmosphere)
   C. Understands Earth history (e.g., origin of Earth, paleontology, the rock record)
   D. Understands Earth and the universe (e.g., stars and galaxies; the solar system and planets; Earth, Sun, and Moon relationships)
   E. Understands Earth patterns, cycles, and change
   F. Understands science as a human endeavor, a process, and a career
   G. Understands science as inquiry (e.g., questioning, gathering data, drawing reasonable conclusions)
   H. Understands how to use resource and research material in science
   I. Understands the unifying processes of science (e.g., systems, order, organization)

II. Life Science
   A. Understands the structure and function of living systems (e.g., living characteristics and cells, tissues and organs, life processes)
   B. Understands reproduction and heredity (e.g., growth and development, patterns of inheritance of traits, molecular basis of heredity)
Step 1: Learn About Your Test

C. Understands change over time in living things (e.g., life cycles, mutations, adaptation and natural selection)

D. Understands regulation and behavior (e.g., life cycles, responses to external stimuli, controlling the internal environment)

E. Understands unity and diversity of life, adaptation, and classification

F. Understands the interdependence of organisms (e.g., ecosystems, populations, communities)

G. Knows about personal health (e.g., nutrition, communicable diseases, substance abuse)

H. Understands science as a human endeavor, a process, and a career

I. Understands science as inquiry (e.g., questioning, gathering data, drawing reasonable conclusions)

J. Understands how to use resource and research material in science

K. Understands the unifying processes of science (e.g., systems, order, organization)

III. Physical Science

A. Understands the physical and chemical properties and structure of matter (e.g., changes of states, mixtures and solutions, atoms and elements)

B. Understands forces and motions (e.g., types of motion, laws of motion, forces and equilibrium)

C. Understands energy (e.g., forms of energy, transfer and conservation of energy, simple machines)

D. Understands interactions of energy and matter (e.g., electricity, magnetism, sound)

E. Understands science as a human endeavor, a process, and a career

F. Understands science as inquiry (e.g., questioning, gathering data, drawing reasonable conclusions)

G. Understands how to use resource and research material in science

H. Understands the unifying processes of science (e.g., systems, order, organization)
2. Familiarize Yourself with Test Questions

*Become comfortable with the types of questions you’ll find on the Praxis tests*

The *Praxis Series* 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 clicking on a sentence in a text or by clicking on 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 taking other standardized tests. If not, familiarize yourself with them so you don’t spend time during the test figuring out how to answer them.

**Understanding Computer-Delivered Questions**

Questions on computer-delivered tests are interactive in the sense that you answer by selecting an option or entering text on the screen. If you see a format you are not familiar with, read the directions carefully. The directions always give clear instructions on how you are expected to respond.

For most questions, you respond by clicking an oval to select a single answer from a list of options.

However, interactive question types may also ask you to respond by:

- **Clicking more than one oval** to select answers from a list of options.
- **Typing in an entry box.** When the answer is a number, you may be asked to enter a numerical answer. Some questions may have more than one place to enter a response.
- **Clicking check boxes.** You may be asked to click check boxes instead of an oval when more than one choice within a set of answers can be selected.
- **Clicking parts of a graphic.** In some questions, you will select your answers by clicking on a location (or locations) on a graphic such as a map or chart, as opposed to choosing your answer from a list.
- **Clicking on sentences.** In questions with reading passages, you may be asked to choose your answers by clicking on 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 options and drag your answers to the appropriate location in a table, paragraph of text or graphic.
- **Selecting options from a drop-down menu.** You may be asked to choose answers by selecting options from a drop-down menu (e.g., to complete a sentence).

Remember that with every question you will get clear instructions.

Perhaps the best way to understand computer-delivered questions is to view the *Computer-delivered Testing Demonstration* on the Praxis Web site to learn how a computer-delivered test works and see examples of some types of questions you may encounter.
Understanding Selected-Response Questions

Many selected-response questions begin with the phrase “which of the following.” Take a look at this example:

Which of the following is a flavor made from beans?
(A) Strawberry
(B) Cherry
(C) Vanilla
(D) Mint

How would you answer this question?
All of the answer choices are flavors. Your job is to decide which of the flavors is the one made from beans.

Try following these steps to select the correct answer.

1) Limit your answer to the choices given. You may know that chocolate and coffee are also flavors made from beans, but they are not listed. Rather than thinking of other possible answers, focus only on the choices given (“which of the following”).

2) Eliminate incorrect answers. You may know that strawberry and cherry flavors are made from fruit and that mint flavor is made from a plant. That leaves vanilla as the only possible answer.

3) Verify your answer. You can substitute “vanilla” for the phrase “which of the following” and turn the question into this statement: “Vanilla is a flavor made from beans.” This will help you be sure that your answer is correct. If you’re still uncertain, try substituting the other choices to see if they make sense. You may want to use this technique as you answer selected-response questions on the practice tests.

Try a more challenging example

The vanilla bean question is pretty straightforward, but you’ll find that more challenging questions have a similar structure. For example:

Entries in outlines are generally arranged according to which of the following relationships of ideas?
(A) Literal and inferential
(B) Concrete and abstract
(C) Linear and recursive
(D) Main and subordinate

You’ll notice that this example also contains the phrase “which of the following.” This phrase helps you determine that your answer will be a “relationship of ideas” from the choices provided. You are supposed to find the choice that describes how entries, or ideas, in outlines are related.

Sometimes it helps to put the question in your own words. Here, you could paraphrase the question in this way: “How are outlines usually organized?” Since the ideas in outlines usually appear as main ideas and subordinate ideas, the answer is (D).
QUICK TIP: Don’t be intimidated by words you may not understand. It might be easy to be thrown by words like “recursive” or “inferential.” Read carefully to understand the question and look for an answer that fits. An outline is something you are probably familiar with and expect to teach to your students. So slow down, and use what you know.

Watch out for selected-response questions containing “NOT,” “LEAST,” and “EXCEPT”

This type of question asks you to select the choice that does not fit. You must be very careful because it is easy to forget that you are selecting the negative. This question type is used in situations in which there are several good solutions or ways to approach something, but also a clearly wrong way.

How to approach questions about graphs, tables, or reading passages

When answering questions about graphs, tables, or reading passages, provide only the information that the questions ask for. In the case of a map or graph, you might want to read the questions first, and then look at the map or graph. In the case of a long reading passage, you might want to go ahead and read the passage first, noting places you think are important, and then answer the questions. Again, the important thing is to be sure you answer the questions as they refer to the material presented. So read the questions carefully.

How to approach unfamiliar formats

New question formats are developed from time to time to find new ways of assessing knowledge. Tests may include audio and video components, such as a movie clip or animation, instead of a map or reading passage. Other tests may allow you to zoom in on details in a graphic or picture.

Tests may also include interactive questions. These questions take advantage of technology to assess knowledge and skills in ways that standard selected-response questions cannot. If you see a format you are not familiar with, read the directions carefully. The directions always give clear instructions on how you are expected to respond.

QUICK TIP: Don’t make the questions more difficult than they are. Don’t read for hidden meanings or tricks. There are no trick questions on Praxis tests. They are intended to be serious, straightforward tests of your knowledge.

Understanding Constructed-Response Questions

Constructed-response questions require you to demonstrate your knowledge in a subject area by creating your own response to particular topics. Essays and short-answer questions are types of constructed-response questions.

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. You must support your position with specific reasons and examples from your own experience, observations, or reading.

Take a look at a few sample essay topics:

- “Celebrities have a tremendous influence on the young, and for that reason, they have a responsibility to act as role models.”
- “We are constantly bombarded by advertisements—on television and radio, in newspapers and magazines, on highway signs, and the sides of buses. They have become too pervasive. It’s time to put limits on advertising.”
- “Advances in computer technology have made the classroom unnecessary, since students and teachers are able to communicate with one another from computer terminals at home or at work.”
Keep these 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 not filled with unnecessary information.

5) **Reread your response.** Check that you have written what you thought you wrote. Be sure not to leave sentences unfinished or omit clarifying information.

**QUICK TIP:** You may find that it helps to 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.

For tests that have constructed-response questions, more detailed information can be found in “1. Learn About Your Test” on page 5.
3. Practice with Sample Test Questions

Answer practice questions and find explanations for correct answers

Reading and Language Arts
Sample Test Questions

The sample questions that follow illustrate the kinds of questions 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 incomplete statements below is followed by suggested answers or completions. Select the one that is best in each case.

1. How many phonemes are in the word “ball”?
   (A) 1
   (B) 2
   (C) 3
   (D) 4

2. An English-language learner who is capable of matching pictures with words and phrases from a story but cannot yet use those pictures to recreate the sequence of a story is functioning at which of the following language proficiency levels?
   (A) Entering
   (B) Developing
   (C) Expanding
   (D) Bridging

3. Which TWO of the following syllable types are present in the word “remarkable”?
   (A) Open
   (B) Closed
   (C) Vowel team
   (D) R-controlled

4. Which of the following is the most appropriate strategy for using easy books to increase fluency in a nonfluent student?
   (A) Providing opportunities for the nonfluent student to read self-selected easy books to a younger student
   (B) Asking a younger, more fluent reader to read an easy book aloud to the nonfluent student
   (C) Assigning an easy-to-read nonfiction book to the nonfluent student for independent reading
   (D) Encouraging other students to interrupt and correct when the nonfluent student is reading easy books aloud

5. Which of the following is most commonly used in digital text to give a reader access to additional information about a topic?
   (A) A citation
   (B) A hyperlink
   (C) An index
   (D) A glossary

6. Mike loves playing football. He is the quarterback for his team, and he knows when to call the right plays. He hates having to miss a practice, and his teammates are frustrated when he’s not there. They always say, “Where is Mike? We are lost without him.” The team usually has a good practice even if he is not there, but they miss out on practicing key plays.

Which of the following best explains how the reader knows that the passage is from a third-person narrative?

   (A) The narrator is only an observer of the action in the passage.
   (B) The narrator is participating in the dialogue in the passage.
   (C) The narrator discloses only his or her thoughts and feelings in the passage.
   (D) The narrator uses the present tense to discuss the conflict in the passage.
7. Which of the following statements best describes how graphic novels promote inferencing?
   (A) Readers rely on characters’ dialogue to tell the story.
   (B) Readers are given graphic organizers to facilitate understanding.
   (C) Readers can summarize the stories’ beginning, middle, and end.
   (D) Readers use the pictures to interpret the text.

8. Which of the following is true of qualitative measures of text complexity?
   (A) They describe statistical measurements of a text.
   (B) They rely on computer algorithms to describe text.
   (C) They involve attributes that can be measured only by human readers.
   (D) They account for the different motivational levels readers bring to texts.

9. Which TWO of the following can be classified as expository writing?
   (A) A short story
   (B) A technical speech
   (C) A personal diary
   (D) A scientific report
   (E) An editorial commentary

10. The meaning of sentence 1 differs from that of sentence 2 in that the
    (A) sentences do not have the same simple predicate
    (B) adjective phrase “from Nebraska” modifies different nouns
    (C) subject of sentence 1 is “teacher,” while the subject of sentence 2 is “artifacts”
    (D) first sentence ends in a prepositional phrase, while the second sentence does not

11. A student whose writing shows an awareness of spacing (though spaces between words are not even), makes sporadic use of proper capitalization, and contains some invented spelling is most likely functioning at which of the following stages of developmental writing?
    (A) Emergent
    (B) Transitional
    (C) Conventional
    (D) Proficient

12. Which of the following technology-based tools best facilitates both personal writing and written discussion about the writing?
    (A) Blogging programs
    (B) Interactive gaming
    (C) Slide-share programs
    (D) Interactive whiteboards

13. Which of the following is considered a reliable source for research?
    (A) A wiki encyclopedia entry
    (B) An online discussion forum
    (C) A famous scientist’s personal blog
    (D) An educational institution’s Web site
Questions 14-15 refer to the following poem:

Leave me, O love which reaches but to dust;
And thou, my mind, aspire to higher things;
Grow rich in that which never taketh rust,
Whatever fades but fading pleasure brings.

14. In line 1 “dust” serves as a metaphor for
   (A) ignorance
   (B) death
   (C) loneliness
   (D) confusion

15. The lines above comment on the speaker’s desire to
   (A) seek out immediate pleasures
   (B) enrich himself
   (C) reject that which is transitory
   (D) revive the past

16. Manuel is the tallest of the two boys.
    Which of the following statements about the sentence is true?
   (A) The sentence is written correctly.
   (B) The subject and verb do not agree.
   (C) The word “boys” should be possessive.
   (D) “Tallest” modifies Manuel incorrectly.

17. Original Sentence
    The sailor viewed the sky to determine how the trip would go.

    Revision
    The mariner surveyed the clouds to predict the trip’s success.

    The revised sentence reflects an improvement in which of the following aspects of writing?
   (A) Conventions
   (B) Organization
   (C) Sentence fluency
   (D) Word choice

18. Two hamsters sat in the cage side by side; a furtive, timid one and a glossy, bold one watched each other warily.
    The sentence above is an example of a
   (A) simple sentence
   (B) compound sentence
   (C) complex sentence
   (D) compound-complex sentence

19. Which of the following is most typically included in the conclusion of an oral presentation?
   (A) An expansion of the thesis
   (B) A summarization of the main points
   (C) An attempt to build rapport with the audience
   (D) A move to gain the audience’s attention

20. In a student discussion about whether the school cafeteria should stop selling junk food, which of the following statements best demonstrates active listening?
    (A) “In my opinion, it would be a mistake to remove junk food from the cafeteria because no one would eat there anymore.”
    (B) “Raul thinks that our health should come before eating what we love, but Lacey argues that the schools should not take away our right to choose.”
    (C) “How many of you would actually buy lunch if the cafeteria stopped selling junk food?”
    (D) “What if we write a formal complaint to the superintendent to voice our opinion on the food in the cafeteria?”
Step 3: Practice with Sample Test Questions

Reading and Language Arts Answers

1. The correct answer is (C). The word structure is /b/ /a/ /l/. “ll” is a blend so therefore makes only one sound.

2. The correct answer is (A). English-language learners at the Entering stage of language proficiency can process and produce the English needed to successfully engage in the reading activities mentioned but cannot yet identify main ideas or sequence pictures from oral stories. These skills come later, appearing first while the student is in the Developing level. Once they have reached the Expanding and Bridging proficiency levels, English-language learners possess even more advanced skills, such as finding details that support main ideas.

3. The correct answers are (A) and (D). (A) is correct because the syllable “re” is an open syllable. An open syllable ends in a long vowel sound produced by a single vowel. (D) is correct because the syllable “mar” is an r-controlled syllable. The “r” controls the vowel sound, causing the “a” to have a unique sound.

4. The best answer is (A). Fluency refers to reading smoothly, quickly, and with expression. (A) offers the nonfluent student opportunities to engage in meaningful literary experiences while gaining courage and self esteem, while also experiencing ownership.

5. The correct answer is (B). The reader can follow the link provided to easily seek more information.

6. The correct answer is (A). The narrator of the passage is an observer, not a participant, in the action and dialogue of the passage. This is characteristic of a third-person narrative.

7. The correct answer is (D). The images in a graphic novel provide information not included within the text, such as character attributes. In a graphic novel, the combination of text and images is required to produce the complete story.

8. The correct answer is (C). The qualitative attributes are subjective and can only be evaluated by a human reader (i.e. “predictability of text”).

9. The correct answers are (B) and (D). A technical speech and a research report both require that information be collected and synthesized.

10. The correct answer is (B). The meaning of the two sentences differs because in sentence 1 the teacher is from Nebraska, while in sentence 2 the Native American artifacts are from Nebraska. Thus, the placement of the adjective phrase “from Nebraska” after two different nouns changes the meaning of the sentences.

11. The correct answer is (B). Students at a transitional level are beginning to have a more formal sense of print conventions, letters, words, and sentences. The characteristics in the list describe a student performing at the transitional level.

12. The correct answer is (A). Blogging programs facilitate personal writing and typically have open forums that encourage readers to respond to the writing with written discussion.

13. The correct answer is (D). An educational institution’s Web site is likely to be unbiased and contain accurate information.

14. The correct answer is (B). A metaphor is a type of figurative language in which one image or idea is connected with another. In literature, the word “dust” is often associated with death because life forms decay into soil after death.

15. The correct answer is (C). The word “transitory” refers to change, and the speaker mentions a desire to reject things that turn to dust, acquire dust, and start to fade. These are all types of change.

16. The correct answer is (D). “Tallest” is in the superlative degree, which is used when comparing more than two things. “Taller” is the correct word to use, since it is in the comparative degree.

17. The correct answer is (D). Sentence quality is enhanced by choosing words that provide specificity and clarity of meaning.

18. The correct answer is (B). A simple sentence contains only one independent clause. This sentence has two independent clauses joined by a semicolon, including one independent clause with a compound subject. Without dependent clauses, the sentence cannot be characterized as either complex or compound-complex.

19. The correct answer is (B). The conclusion of an oral presentation usually contains a clear summary of the main points to reinforce the presentation’s goal.

20. The correct answer is (B). The statement demonstrates paraphrasing of others’ statements. An active listener spends more time listening than talking, which paraphrasing demonstrates.
Mathematics Sample Test Questions

The sample questions that follow illustrate the kinds of questions 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 incomplete statements below is followed by four suggested answers or completions. Select the one that is best in each case.

1. Which of the following is an example of the commutative property of addition?
   (A) \( 5 \times 3 = 3 \times 5 \)
   (B) \( (1 + 7) + 4 = 1 + (7 + 4) \)
   (C) \( 6 \times (4 + 2) = (6 \times 4) + (6 \times 2) \)
   (D) \( 8 + 9 = 9 + 8 \)

2. There is a linear relationship between \( x \) and \( y \) in the table above. Which of the following equations gives the rule that relates \( x \) and \( y \) ?
   (A) \( y = -8x + 4 \)
   (B) \( y = -7x + 4 \)
   (C) \( y = -6x + 4 \)
   (D) \( y = -5x + 4 \)

3. A fourth-grade class started working on math worksheets at 1:30 p.m. and stopped working at 3:10 p.m. How long did the class work on the math worksheets?
   (A) 40 minutes
   (B) 80 minutes
   (C) 100 minutes
   (D) 120 minutes

4. A student plans to simultaneously toss a fair number cube, with faces numbered 1 through 6, and a fair coin. What is the probability that the cube will land with the face numbered 4 up and the coin will land heads up?
   (A) \( \frac{1}{12} \)
   (B) \( \frac{1}{8} \)
   (C) \( \frac{1}{6} \)
   (D) \( \frac{2}{3} \)

5. The only prime factors of a certain number are 2, 3, and 7. Which of the following could be the number?
   (A) \( 18 \times 28 \)
   (B) \( 20 \times 21 \)
   (C) \( 22 \times 63 \)
   (D) \( 24 \times 35 \)

6. Which of the following is equivalent to the inequality above?
   \( 5 \leq 7 - p \)
   (A) \( p \leq 2 \)
   (B) \( p \geq 2 \)
   (C) \( p \leq -2 \)
   (D) \( p \geq -2 \)

7. Which of the following best describes the polygon above?
   (A) A regular hexagon
   (B) An arrow
   (C) A convex hexagon
   (D) A concave hexagon
8. After a lesson on rounding and estimation, a teacher tells students that a cook has made 157 sandwiches for 4 lunch periods. The teacher asks the students to estimate the average number of sandwiches that will be served in each lunch period. Which of the following students correctly estimated the answer?
(A) Student A: about 35
(B) Student B: 39.25
(C) Student C: about 40
(D) Student D: about 45

9. Jack had three babysitting jobs this week. He worked the same number of hours \( H \) on each job. He was paid $12 per hour at his first job, $4 per half hour at his second job, and $5 for each 20 minutes at his third job. Which of the following expressions could be used to find the total amount, in dollars, Jack earned?
(A) \( 12 \times H + 4 \times H + 5 \times H \)
(B) \( 12 \times H + 8 \times H + 15 \times H \)
(C) \( 12 \times H + 8 \times H + 20 \times H \)
(D) \( 12 \times H + 4 \times \frac{1}{2} \times H + 5 \times \frac{1}{3} \times H \)

10. To make fruit punch, Edie mixes two kinds of juices in the following ratio: 1 cup of blueberry to 3 cups of red raspberry. How many cups of red raspberry will Edie need to make 48 cups of fruit punch?
(A) 12
(B) 16
(C) 24
(D) 36

11. Riding on a school bus are 20 students in ninth grade, 10 students in tenth grade, 9 students in eleventh grade, and 7 students in twelfth grade. Approximately what percent of the students on the bus are in ninth grade?
(A) 23%
(B) 43%
(C) 46%
(D) 76%

12. In the expression \( 4x^2 + 7 \) what is the degree of \( 4x^2 \)?
(A) 0
(B) 1
(C) 2
(D) 4

13. What is the area, in square units, of the figure above?
(A) 32
(B) 52
(C) 64
(D) 104
Mathematics Answers

1. The correct answer is (D). The question requires an understanding of the properties of operations. An operation is commutative on a set of numbers if the operation can be performed on any two numbers from the set and produce the same result regardless of the order in which the numbers are written. The operation of addition is commutative on the set of real numbers, since for any two real numbers \( a \) and \( b \); \( a + b = b + a \), i.e., the sum is the same regardless of the order in which the numbers are added. The commutative property of addition thus guarantees that \( 8 + 9 = 9 + 8 \).

2. The correct answer is (C). The question requires an understanding of how to identify relationships between the corresponding terms of two numerical patterns. The slope of the equation can be found by calculating the rate of change for any two pairs \((x, y)\), e.g., \( \frac{-38 - (-20)}{7 - 4} = -6 \).

3. The correct answer is (C). The question requires an understanding of how to solve problems involving the measurement of elapsed time. Between 1:30 p.m. and 3:10 p.m. there are 1 hour and 40 minutes, or 100 minutes.

4. The correct answer is (A). The question requires an understanding of how to interpret probabilities relative to likelihood of occurrence. The coin has 2 possible outcomes: heads or tails. The probability of the coin landing heads up is 1 out of 2, or \( \frac{1}{2} \). The cube has 6 possible outcomes: 1, 2, 3, 4, 5, or 6. The probability of the face numbered 4 landing up is 1 out of 6, or \( \frac{1}{6} \). To find the combined probability, multiply the two independent probabilities together, i.e., \( \frac{1}{2} \times \frac{1}{6} = \frac{1}{12} \).

5. The correct answer is (A). The question requires an understanding of how to find factors and multiples of numbers. The prime factorization of 18 is \( 2 \times 3^2 \) and the prime factorization of 28 is \( 2^2 \times 7 \). The prime factorization of \( 18 \times 28 \) is \( 2^3 \times 3^2 \times 7 \), which consists only of the prime factors 2, 3, and 7.

6. The correct answer is (A). The question requires an understanding of how to solve multistep one-variable linear inequalities. The addition property of inequalities states that for any real numbers \( a \), \( b \), and \( c \), if \( a \leq b \), then \( a + c \leq b + c \) and if \( a \geq b \), then \( a + c \geq b + c \). Adding \(-5\) to both sides of the inequality yields the equivalent inequality \( 0 \leq 2 - p \). Adding \( p \) to both sides of the new inequality yields the equivalent inequality \( p \leq 2 \).

7. The correct answer is (D). The question requires an understanding of how to use attributes to classify or draw polygons. A polygon with six sides is called a hexagon. A polygon for which any two points on the polygon can be connected by a segment and the segment is entirely contained within the interior of the polygon is a convex polygon; a polygon for which this is not true is a concave polygon. A polygon is regular only if all sides are congruent. The polygon shown is not regular but is a concave hexagon.

8. The correct answer is (C). The question requires an understanding of how to use rounding strategies to solve problems and determine the reasonableness of results. The average number of sandwiches served in each lunch period is found by calculating \( \frac{157}{4} \). To estimate this value, 157 can be rounded to 160, the number closest to 157 that is a multiple of 4. The estimate can be produced by mentally finding the value of \( 160 \div 4 \), i.e., 40.

9. The correct answer is (B). The question requires an understanding of how to translate between verbal statements and algebraic expressions or equations. Jack made 12 dollars per hour at his first job. He made 4 dollars per half hour, or \( 4 \times 2 = 8 \) dollars per hour, at his second job. Finally, Jack made 5 dollars for each 20 minutes, or \( 5 \times 3 = 15 \) dollars per hour, at his third job. If he worked \( H \) hours at each job, he made \( 12 + 8 + 15 \times H \).

10. The correct answer is (D). The question requires an understanding of how to use proportional relationships to solve ratio problems. With 1 cup of blueberry juice and 3 cups of red raspberry juice, Edie can make 4 cups of punch. In the juice mixture, \( \frac{1}{4} \) of the total number of cups is blueberry and \( \frac{3}{4} \) of the total number of cups is red raspberry. Thus in 48 cups of juice mixture, the number of cups of red raspberry juice needed is \( \frac{3}{4} \) of 48, which equals 36 cups.
11. The correct answer is (B). The question requires an understanding of percent as a rate per 100. Percent refers to “how many out of one hundred” or, in decimal form, “how many hundredths.” To find a percent, divide the group (20) by the total (46) and round the decimal to the hundredths place (0.43). This is 43 hundredths or \( \frac{43}{100} \) or 43%.

12. The correct answer is (C). The question requires an understanding of how to use mathematical terms to identify parts of expressions and describe expressions. The degree of a monomial is the sum of the exponents of the variables that appear in it. In \( 4x^2 \) there is only one variable, \( x \), and its exponent is 2.

13. The correct answer is (B). The question requires an understanding of how to find the area of polygons, including those with fractional side lengths. The figure is composed of a rectangle and a triangle. The rectangle has length 10 and width 4, so its area is 40. The triangle can be thought of as having a base of 4 and a height of 6. Its area is \( \frac{1}{2} \times 4 \times 6 \), or 12. The combined area is, therefore, \( 40 + 12 \), or 52.
Social Studies Sample Test Questions

The sample questions that follow illustrate the kinds of questions 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 incomplete statements below is followed by four suggested answers or completions. Select the one that is best in each case.

1. Mount Rainier is located in which of the following mountain ranges?
   (A) The Cascades
   (B) The Rockies
   (C) The Appalachians
   (D) The Alps

2. Which of the following types of maps shows the boundaries of countries, states or municipalities?
   (A) Thematic
   (B) Topographic
   (C) Political
   (D) Meteorological

3. Which of the following is believed to have occurred during the last Ice Age as a result of a land bridge created between what are now Siberia and Alaska?
   (A) The invention of new technologies for sheltering humans against sustained cold
   (B) The blockage of important trade routes
   (C) The establishment of human settlements in North America
   (D) Widespread famine

4. Since the end of the United States Civil War in 1865, all of the following have been major objectives of groups seeking civil rights for Black people EXCEPT
   (A) passage of affirmative action legislation
   (B) desegregation of public educational facilities
   (C) creation of a third party in national politics
   (D) passage of antilynching laws

5. The legal doctrine known as “separate but equal” was overturned by the Supreme Court’s ruling in which of the following cases?
   (A) *Plessy v. Ferguson*
   (B) *Brown v. Board of Education of Topeka*
   (C) *Miranda v. Arizona*
   (D) *Mapp v. Ohio*

6. In the United States, the division of power between the national and state governments demonstrates the principle of
   (A) checks and balances
   (B) federalism
   (C) separation of powers
   (D) the rule of law

7. What percent of the seats in the United States House of Representatives are up for election every two years?
   (A) 33%
   (B) 50%
   (C) 66%
   (D) 100%

8. Historically, India’s society has been organized into hierarchical groups known as
   (A) tribes
   (B) castes
   (C) clans
   (D) denominations
9. Which of the following major world religions is monotheistic?
(A) Hinduism
(B) Buddhism
(C) Islam
(D) Shintoism

10. According to the graph above, how many of the countries shown produced more crude oil in 1975 than in 1974?
(A) 1
(B) 2
(C) 3
(D) 4

11. Jane is saving to buy a new car. Her friends are planning a weekend trip to the beach. She wants to go, but decides that saving for the car is more important. Jane’s choice best demonstrates which of the following economic concepts?
(A) Opportunity cost
(B) Supply and demand
(C) Scarcity of resources
(D) Comparative advantage
Social Studies Answers

1. The correct answer is (A). Mount Rainier is located in the state of Washington. The greatest single-peak glacial system in the United States radiates from this dormant volcano in the Cascade Mountains.

2. The correct answer is (C). A political map shows boundaries of countries, states, and municipalities. A thematic map presents specific information related to a geographic area, such as the location of natural resources. A topographic map shows the physical features of the land. A meteorological map presents information about weather and climate.

3. The correct answer is (C). During the Ice Age, the level of the water in the Pacific Ocean lowered, thereby exposing a land bridge across the Bering Strait. The cold northern climate encouraged many people to migrate throughout the continent in search of better living conditions.

4. The correct answer is (C). The creation of a third party in national politics would be a political action, not one of civil rights.

5. The correct answer is (B). In *Brown v. Board of Education of Topeka*, the Supreme Court ruled that segregating schools on the basis of race was inherently discriminatory. This decision overturned the precedent set by *Plessy v. Ferguson*, which had upheld the constitutionality of racial segregation in public facilities.

6. The correct answer is (B), federalism. Federalism is the division of power between a central government and constituent governments, called states in the United States. Checks and balances refers to the constitutional arrangement of powers that prevents one branch of the government from becoming too powerful. Separation of powers refers to the division of power among the three branches of the United States government. The rule of law is the principle which holds that no person is above the law.

7. The correct answer is (D). Article 1, Section 2 of the Constitution of the United States reads, “The House of Representatives shall be composed of Members chosen every second Year by the People...”. All members of the House are elected at the same time every two years.

8. The correct answer is (B). In the fifteenth century AD, explorers from Portugal encountered the social system of India and called these groups “castes.” As time went on, the four basic castes gradually grew more complex, with hundreds of subdivisions.

9. The correct answer is (C). Of the major world religions listed, Islam is the only one that is monotheistic. Each of the other religions listed has as a central tenet a belief in more than one deity.

10. The correct answer is (B). Since the numbers on the left side of the graph increase from bottom to top, it is a matter of determining how many shaded bars are higher than their corresponding striped bars.

11. The correct answer is (A). Opportunity cost is the value of what is forgone when an economic choice is made. In this example, the opportunity cost of saving for the car is forgoing a weekend trip with friends.
Science Sample Test Questions

The sample questions that follow illustrate the kinds of questions 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 incomplete statements below is followed by four 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 the Earth?
   (A) Volcanic activity
   (B) Glacial activity
   (C) Soil erosion
   (D) Weathering

2. Which of the diagrams above best depicts the Moon as viewed from Earth at the first quarter of the lunar cycle?
   (A) 1
   (B) 2
   (C) 3
   (D) 4

3. Which of the following is NOT a way in which mammals keep themselves warm in winter?
   (A) Shivering
   (B) Perspiring
   (C) Fluffing out coat hair
   (D) Contracting certain blood vessels

4. Which of the following would be observed in a vacuum if a feather and two stones of different weights were dropped simultaneously from a height of ten feet?
   (A) Both stones would hit the ground at the same time, but before the feather.
   (B) The heavier stone would hit the ground first.
   (C) The lighter stone would hit the ground first.
   (D) All three objects would hit the ground at the same time.

5. Which of the following laboratory instruments would be most appropriate to use in determining the volume of a large block of wood of unknown density?
   (A) A metric ruler
   (B) A triple-beam balance
   (C) A 200 mL volumetric flask
   (D) A micrometer

6. Which of the following best describes a scientific hypothesis?
   (A) It ensures that successful results will be obtained from an experiment.
   (B) It must be accepted as true by the scientific community.
   (C) It is a testable proposal that may lead to experimentation.
   (D) It must be formulated by a renowned scientist.

7. Which of the following is the broadest category in the 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 only
   (B) one-half of his female offspring only
   (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 want to bake potatoes in a fire. Both wrap their potatoes in aluminum foil. One camper, however, sticks a large nail through her potato. Which of the following is most likely to happen after the potatoes are placed in the fire?
   (A) Both potatoes will cook at the same rate.
   (B) Neither potato will cook because the foil will reflect the heat.
   (C) The potato with the nail will cook faster because heat will be conducted into the potato.
   (D) The potato with the nail will cook more slowly because heat will be conducted out of the potato.
Science Answers

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

2. The correct answer is (B). At the first lunar quarter, the Sun, Earth, and Moon form a right triangle, with Earth at the right angle, so that the half of the Moon facing Earth appears both half-lighted and half-dark.

3. The correct answer is (B). Perspiring is an adaptation that allows mammals to lose heat. When the body temperature rises, sweat is produced. As the water in the sweat evaporates, the skin is cooled, not warmed.

4. The correct answer is (D). 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 × g, where M is 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 × a = M × g, or a = g. Thus, in a vacuum all objects fall freely with the same constant acceleration g regardless of their mass.

5. The correct answer is (A). To find the volume of a large rectangular block of wood, first use the metric ruler to find the length, width, and height of the block. Then use the formula for the volume of a rectangular solid—length x width x height—to determine the volume.

6. The correct answer is (C). A hypothesis is a best guess or a possible explanation of a scientific problem. Scientific experimentation can either support or fail to support the hypothesis.

7. The correct answer is (A). When putting living things into a biological classification scheme, the broadest category is kingdom, followed by phylum, class, order, family, genus, and species.

8. The correct answer is (C). 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.

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

10. Although the aluminum foil will reflect radiant energy, it will not significantly reduce the flow of energy by conduction. Because a nail is a good thermal conductor, heat will flow through the nail and cook the potato from the inside as well as from the outside. Thus, the potato with the imbedded nail will cook faster. (C) is the correct answer.
4. Determine Your Strategy for Success

Set clear goals and deadlines so your test preparation is focused and efficient

Effective Praxis test preparation doesn't just happen. You’ll want to set clear goals and deadlines for yourself along the way. Otherwise, you may not feel ready and confident on test day. A helpful resource is the Strategies for Success video, which includes tips for preparing and studying, along with tips for reducing test anxiety.

1) Learn what the test covers.
You may have heard that there are several different versions of the same test. It’s true. You may take one version of the test and your friend may take a different version a few months later. Each test has different questions covering the same subject area, but both versions of the test measure the same skills and content knowledge.
You’ll find specific information on the test you’re taking in “1. Learn About Your Test” on page 5, which outlines the content categories that the test measures and what percentage of the test covers each topic. Visit www.ets.org/praxis/testprep for information on other Praxis tests.

2) Assess how well you know the content.
Research shows that test takers tend to overestimate their preparedness—this is why some test takers assume they did well and then find out they did not pass.
The Praxis tests are demanding enough to require serious review of likely content, and the longer you’ve been away from the content, the more preparation you will most likely need. If it has been longer than a few months since you’ve studied your content area, make a concerted effort to prepare.

3) Collect study materials.
Gathering and organizing your materials for review are critical steps in preparing for the Praxis tests. Consider the following reference sources as you plan your study:

   • Did you take a course in which the content area was covered? If yes, do you still have your books or your notes?
   • Does your local library have a high school-level textbook in this area? Does your college library have a good introductory college-level textbook in this area?

Practice materials are available for purchase for many Praxis tests at www.ets.org/praxis/testprep. Test preparation materials include sample questions and answers with explanations.

4) Plan and organize your time.
You can begin to plan and organize your time while you are still collecting materials. Allow yourself plenty of review time to avoid cramming new material at the end. Here are a few tips:

   • Choose a test date far enough in the future to leave you plenty of preparation time. Test dates can be found at www.ets.org/praxis/register/centers_dates.
   • Work backward from that date to figure out how much time you will need for review.
   • Set a realistic schedule—and stick to it.
5) Practice explaining the key concepts.

*Praxis* tests with constructed-response questions assess your ability to explain material effectively. As a teacher, you’ll need to be able to explain concepts and processes to students in a clear, understandable way. What are the major concepts you will be required to teach? Can you explain them in your own words accurately, completely, and clearly? Practice explaining these concepts to test your ability to effectively explain what you know.

6) Understand how questions will be scored.

Scoring information can be found in "9. Understand Your Scores" on page 46.

7) Develop a study plan.

A study plan provides a road map to prepare for the *Praxis* tests. It can help you understand what skills and knowledge are covered on the test and where to focus your attention. Use the study plan template on page 39 to organize your efforts.

And most important—get started!

Would a Study Group Work for You?

Using this guide as part of a study group

People who have a lot of studying to do sometimes find it helpful to form a study group with others who are working toward the same goal. Study groups give members opportunities to ask questions and get detailed answers. In a group, some members usually have a better understanding of certain topics, while others in the group may be better at other topics. As members take turns explaining concepts to one another, everyone builds self-confidence.

If the group encounters a question that none of the members can answer well, the group can go to a teacher or other expert and get answers efficiently. Because study groups schedule regular meetings, members study in a more disciplined fashion. They also gain emotional support. The group should be large enough so that multiple people can contribute different kinds of knowledge, but small enough so that it stays focused. Often, three to six members is a good size.

Here are some ways to use this guide as part of a study group:

- **Plan the group’s study program.** Parts of the study plan template, beginning on page 39 can help to structure your group’s study program. By filling out the first five columns and sharing the worksheets, everyone will learn more about your group’s mix of abilities and about the resources, such as textbooks, that members can share with the group. In the sixth column (“Dates I will study the content”), you can create an overall schedule for your group’s study program.

- **Plan individual group sessions.** At the end of each session, the group should decide what specific topics will be covered at the next meeting and who will present each topic. Use the topic headings and subheadings in the Test at a Glance table on page 5 to select topics, and then select practice questions, beginning on page 20.

- **Prepare your presentation for the group.** When it’s your turn to present, prepare something that is more than a lecture. Write two or three original questions to pose to the group. Practicing writing actual questions can help you better understand the topics covered on the test as well as the types of questions you will encounter on the test. It will also give other members of the group extra practice at answering questions.
• **Take a practice test together.** The idea of a practice test is to simulate an actual administration of the test, so scheduling a test session with the group will add to the realism and may also help boost everyone’s confidence. Remember, complete the practice test using only the time that will be allotted for that test on your administration day.

• **Learn from the results of the practice test.** Review the results of the practice test, including the number of questions answered correctly in each content category. For tests that contain constructed-response questions, look at the Sample Test Questions section, which also contain sample responses to those questions and shows how they were scored. Then try to follow the same guidelines that the test scorers use.

• **Be as critical as you can.** You’re not doing your study partner(s) any favors by letting them get away with an answer that does not cover all parts of the question adequately.

• **Be specific.** Write comments that are as detailed as the comments about the sample responses. Indicate where and how your study partner(s) are doing an inadequate job of answering the question. Writing notes in the margins of the answer sheet may also help.

• **Be supportive.** Include comments that point out what your study partner(s) got right.

Then plan one or more study sessions based on aspects of the questions on which group members performed poorly. For example, each group member might be responsible for rewriting one paragraph of a response in which someone else did an inadequate job.

Whether you decide to study alone or with a group, remember that the best way to prepare is to have an organized plan. The plan should set goals based on specific topics and skills that you need to learn, and it should commit you to a realistic set of deadlines for meeting those goals. Then you need to discipline yourself to stick with your plan and accomplish your goals on schedule.
# 5. Develop Your Study Plan

*Develop a personalized study plan and schedule*

Planning your study time is important because it will help ensure that you review all content areas covered on the test. Use the sample study plan below as a guide. It shows a plan for the Core Academic Skills for Educators: Reading test. Following that is a study plan template that you can fill out to create your own plan. Use the "Learn about Your Test" and "Topics Covered" information beginning on page 5 to help complete it.

**Use this worksheet to:**
1. **Define Content Areas:** List the most important content areas for your test as defined in the Topics Covered section.
2. **Determine Strengths and Weaknesses:** Identify your strengths and weaknesses in each content area.
3. **Identify Resources:** Identify the books, courses, and other resources you plan to use for each content area.
4. **Study:** Create and commit to a schedule that provides for regular study periods.

## Praxis Test Name: Core Academic Skills for Educators: Reading

**Praxis Test Code(s):** 5712

**Test Date:** 9/15/14

<table>
<thead>
<tr>
<th>Content covered</th>
<th>Description of content</th>
<th>How well do I know the content? (scale 1–5)</th>
<th>What resources do I have/need for the content?</th>
<th>Where can I find the resources I need?</th>
<th>Dates I will study the content</th>
<th>Date completed</th>
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</thead>
<tbody>
<tr>
<td><strong>Core Academic Skills for Educators:</strong></td>
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</tr>
<tr>
<td>Main Ideas</td>
<td>Identify summaries or paraphrases of main idea or primary purpose of reading selection</td>
<td>3</td>
<td>Middle school English text book</td>
<td>College library, middle school teacher</td>
<td>7/15/14</td>
<td>7/15/14</td>
</tr>
<tr>
<td>Supporting Ideas</td>
<td>Identify summaries or paraphrases of supporting ideas and specific details in reading selection</td>
<td>3</td>
<td>Middle school English text book</td>
<td>College library, middle school teacher</td>
<td>7/17/14</td>
<td>7/17/14</td>
</tr>
<tr>
<td>Organization</td>
<td>Identify how reading selection is organized in terms of cause/effect and compare/contrast</td>
<td>3</td>
<td>Middle and high school English text book</td>
<td>College library, middle and high school teachers</td>
<td>7/20/14</td>
<td>7/21/14</td>
</tr>
<tr>
<td>Organization</td>
<td>Identify key transition words/phrases in reading selection and how used</td>
<td>4</td>
<td>Middle and high school English text book</td>
<td>College library, middle and high school teachers</td>
<td>7/25/14</td>
<td>7/26/14</td>
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<tr>
<td>Vocabulary in Context</td>
<td>Identify meanings of words as used in context of reading selection</td>
<td>3</td>
<td>Middle and high school English text book, dictionary</td>
<td>College library, middle and high school teachers</td>
<td>7/25/14</td>
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<table>
<thead>
<tr>
<th>Content covered</th>
<th>Description of content</th>
<th>How well do I know the content? (scale 1–5)</th>
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<tbody>
<tr>
<td><strong>Craft, Structure, and Language Skills</strong></td>
<td></td>
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<tr>
<td>Evaluation</td>
<td>Determine whether evidence strengthens, weakens, or is relevant to arguments in reading selection</td>
<td>5</td>
<td>High school text book, college course notes</td>
<td>College library, course notes, high school teacher, college professor</td>
<td>8/1/14</td>
<td>8/1/14</td>
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<tr>
<td>Evaluation</td>
<td>Determine role that an idea, reference, or piece of information plays in author’s discussion/argument</td>
<td>5</td>
<td>High school text book, college course notes</td>
<td>College library, course notes, high school teacher, college professor</td>
<td>8/1/14</td>
<td>8/1/14</td>
</tr>
<tr>
<td>Evaluation</td>
<td>Determine if information presented is fact or opinion</td>
<td>4</td>
<td>High school text book, college course notes</td>
<td>College library, course notes, high school teacher, college professor</td>
<td>8/1/14</td>
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<tr>
<td>Evaluation</td>
<td>Identify relationship among ideas presented in reading selection</td>
<td>2</td>
<td>High school text book, college course notes</td>
<td>College library, course notes, high school teacher, college professor</td>
<td>8/1/14</td>
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<tr>
<td><strong>Integration of Knowledge and Ideas</strong></td>
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<tr>
<td>Inferential Reasoning</td>
<td>Determine logical assumptions on which argument or conclusion is based</td>
<td>2</td>
<td>High school text book, college course notes</td>
<td>College library, course notes, high school teacher, college professor</td>
<td>8/8/14</td>
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<tr>
<td>Inferential Reasoning</td>
<td>Determine author’s attitude toward materials discussed in reading selection</td>
<td>2</td>
<td>High school text book, college course notes</td>
<td>College library, course notes, high school teacher, college professor</td>
<td>8/15/14</td>
<td>8/17/14</td>
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<tr>
<td>Generalization</td>
<td>Recognize or predict ideas/situations that are extensions of, or similar to, what has been presented in reading selection</td>
<td>2</td>
<td>High school text book, college course notes</td>
<td>College library, course notes, high school teacher, college professor</td>
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<td>8/24/14</td>
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<td>Generalization</td>
<td>Draw conclusions from materials presented in reading selection</td>
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<td>High school text book, college course notes</td>
<td>College library, course notes, high school teacher, college professor</td>
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<tr>
<td>Generalization</td>
<td>Apply ideas presented in a reading selection to other situations</td>
<td>3</td>
<td>High school text book, college course notes</td>
<td>College library, course notes, high school teacher, college professor</td>
<td>8/27/14</td>
<td>8/27/14</td>
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</tbody>
</table>
## Step 5: Develop Your Study Plan

### My Study Plan

Use this worksheet to:

1. **Define Content Areas:** List the most important content areas for your test as defined in the Learn about Your Test and Topics Covered sections.
2. **Determine Strengths and Weaknesses:** Identify your strengths and weaknesses in each content area.
3. **Identify Resources:** Identify the books, courses, and other resources you plan to use for each content area.
4. **Study:** Create and commit to a schedule that provides for regular study periods.

| Praxis Test Name: | ____________________________ |
| Praxis Test Code: | __________ |
| Test Date: | __________ |

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<th>Dates I will study this content</th>
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### Step 5: Develop Your Study Plan

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<th>Description of content</th>
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<th>Dates I will study the content</th>
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6. Review Smart Tips for Success

*Follow test-taking tips developed by experts*

Learn from the experts. Take advantage of the following answers to questions you may have and practical tips to help you navigate the *Praxis* test and make the best use of your time.

**Should I Guess?**

Yes. Your score is based on the number of questions you answer correctly, with no penalty or subtraction for an incorrect answer. When you don’t know the answer to a question, try to eliminate any obviously wrong answers and then guess at the correct one. Try to pace yourself so that you have enough time to carefully consider every question.

**Can I answer the questions in any order?**

You can answer the questions in order or skip questions and come back to them later. If you skip a question, you can also mark it so that you can remember to return and answer it later. Remember that questions left unanswered are treated the same as questions answered incorrectly, so it is to your advantage to answer every question.

**Are there trick questions on the test?**

No. There are no hidden meanings or trick questions. All of the questions on the test ask about subject matter knowledge in a straightforward manner.

**Are there answer patterns on the test?**

No. You might have heard this myth: the answers on tests follow patterns. Another myth is that there will never be more than two questions in a row with the correct answer in the same position among the choices. Neither myth is true. Select the answer you think is correct based on your knowledge of the subject.

**Can I write on the scratch paper I am given?**

Yes. You can work out problems on the scratch paper, make notes to yourself, or write anything at all. Your scratch paper will be destroyed after you are finished with it, so use it in any way that is helpful to you. But make sure to select or enter your answers on the computer.

**Smart Tips for Taking the Test**

1. **Skip the questions you find extremely difficult.** Rather than trying to answer these on your first pass through the test, you may want to leave them blank and mark them so that you can return to them later. Pay attention to the time as you answer the rest of the questions on the test, and try to finish with 10 or 15 minutes remaining so that you can go back over the questions you left blank. Even if you don’t know the answer the second time you read the questions, see if you can narrow down the possible answers, and then guess. Your score is based on the number of right answers, so it is to your advantage to answer every question.
2. **Keep track of the time.** The on-screen clock will tell you how much time you have left. You will probably have plenty of time to answer all of the questions, but if you find yourself becoming bogged down, you might decide to move on and come back to any unanswered questions later.

3. **Read all of the possible answers before selecting one.** For questions that require you to select more than one answer, or to make another kind of selection, consider the most likely answers given what the question is asking. Then reread the question to be sure the answer(s) you have given really answer the question. Remember, a question that contains a phrase such as “Which of the following does NOT …” is asking for the one answer that is NOT a correct statement or conclusion.

4. **Check your answers.** If you have extra time left over at the end of the test, look over each question and make sure that you have answered it as you intended. Many test takers make careless mistakes that they could have corrected if they had checked their answers.

5. **Don’t worry about your score when you are taking the test.** No one is expected to answer all of the questions correctly. Your score on this test is not analogous to your score on the GRE® or other tests. It doesn't matter on the Praxis tests whether you score very high or barely pass. If you meet the minimum passing scores for your state and you meet the state’s other requirements for obtaining a teaching license, you will receive a license. In other words, what matters is meeting the minimum passing score. You can find passing scores for all states that use The Praxis Series tests at [http://www.ets.org/s/praxis/pdf/passing_scores.pdf](http://www.ets.org/s/praxis/pdf/passing_scores.pdf) or on the Web site of the state for which you are seeking certification/licensure.

6. **Use your energy to take the test, not to get frustrated by it.** Getting frustrated only increases stress and decreases the likelihood that you will do your best. Highly qualified educators and test development professionals, all with backgrounds in teaching, worked diligently to make the test a fair and valid measure of your knowledge and skills. Your state painstakingly reviewed the test before adopting it as a licensure requirement. The best thing to do is concentrate on answering the questions.
7. Check on Testing Accommodations

See if you qualify for accommodations that may make it easier to take the Praxis test.

What if English is not my primary language?

Praxis tests are given only in English. If your primary language is not English (PLNE), you may be eligible for extended testing time. For more details, visit www.ets.org/praxis/register/accommodations/plne.

What if I have a disability or other health-related need?

The following accommodations are available for Praxis test takers who meet the Americans with Disabilities Act (ADA) Amendments Act disability requirements:

- Extended testing time
- Additional rest breaks
- Separate testing room
- Writer/recorder of answers
- Test reader
- Sign language interpreter for spoken directions only
- Perkins Braille
- Braille slate and stylus
- Printed copy of spoken directions
- Oral interpreter
- Audio test
- Braille test
- Large print test book
- Large print answer sheet
- Listening section omitted

For more information on these accommodations, visit www.ets.org/praxis/register/disabilities.

Note: Test takers who have health-related needs requiring them to bring equipment, beverages, or snacks into the testing room or to take extra or extended breaks must request these accommodations by following the procedures described in the Bulletin Supplement for Test Takers with Disabilities or Health-Related Needs (PDF), which can be found at http://www.ets.org/s/disabilities/pdf/bulletin_supplement_test_takers_with_disabilities_health_needs.pdf.

You can find additional information on available resources for test takers with disabilities or health-related needs at www.ets.org/disabilities.
8. Do Your Best on Test Day

Get ready for test day so you will be calm and confident

You followed your study plan. You prepared for the test. Now it’s time to prepare for test day.

Plan to end your review a day or two before the actual test date so you avoid cramming. Take a dry run to the test center so you’re sure of the route, traffic conditions, and parking. Most of all, you want to eliminate any unexpected factors that could distract you from your ultimate goal—passing the Praxis test!

On the day of the test, you should:

- be well rested
- wear comfortable clothes and dress in layers
- eat before you take the test
- bring an acceptable and valid photo identification with you
- bring a pen or pencil to use on the scratch paper you are given
- bring an approved calculator only if one is specifically permitted for the test you are taking (see Calculator Use, at http://www.ets.org/praxis/test_day/policies/calculators)
- be prepared to stand in line to check in or to wait while other test takers check in

You can’t control the testing situation, but you can control yourself. Stay calm. The supervisors are well trained and make every effort to provide uniform testing conditions, but don’t let it bother you if the test doesn’t start exactly on time. You will have the allotted amount of time once it does start.

You can think of preparing for this test as training for an athletic event. Once you’ve trained, prepared, and rested, give it everything you’ve got.

What items am I restricted from bringing into the test center?

You cannot bring into the test center personal items such as:

- handbags, knapsacks, or briefcases
- water bottles or canned or bottled beverages
- study materials, books, or notes
- pens, pencils, scrap paper, or calculators, unless specifically permitted for the test you are taking (see Calculator Use, at http://www.ets.org/praxis/test_day/policies/calculators)
- any electronic, photographic, recording, or listening devices

Personal items are not allowed in the testing room and will not be available to you during the test or during breaks. You may also be asked to empty your pockets. At some centers, you will be assigned a space to store your belongings, such as handbags and study materials. Some centers do not have secure storage space available, so please plan accordingly.

Test centers assume no responsibility for your personal items.
Step 8: Do Your Best on Test Day

If you have health-related needs requiring you to bring equipment, beverages or snacks into the testing room or to take extra or extended breaks, you need to request accommodations in advance. Procedures for requesting accommodations are described in the Bulletin Supplement for Test Takers with Disabilities or Health-related Needs (PDF).

Note: All cell phones, smart phones (e.g., Android® devices, iPhones®, etc.), and other electronic, photographic, recording, or listening devices are strictly prohibited from the test center. If you are seen with such a device, you will be dismissed from the test, your test scores will be canceled, and you will forfeit your test fees. If you are seen using such a device, the device will be confiscated and inspected. For more information on what you can bring to the test center, visit www.ets.org/praxis/test_day/bring.

Are You Ready?

Complete this checklist to determine whether you are ready to take your test.

☒ Do you know the testing requirements for the license or certification you are seeking in the state(s) where you plan to teach?

☒ Have you followed all of the test registration procedures?

☒ Do you know the topics that will be covered in each test you plan to take?

☒ Have you reviewed any textbooks, class notes, and course readings that relate to the topics covered?

☒ Do you know how long the test will take and the number of questions it contains?

☒ Have you considered how you will pace your work?

☒ Are you familiar with the types of questions for your test?

☒ Are you familiar with the recommended test-taking strategies?

☒ Have you practiced by working through the practice questions in this study companion or in a study guide or practice test?

☒ If constructed-response questions are part of your test, do you understand the scoring criteria for these questions?

☒ If you are repeating a Praxis test, have you analyzed your previous score report to determine areas where additional study and test preparation could be useful?

If you answered “yes” to the questions above, your preparation has paid off. Now take the Praxis test, do your best, pass it—and begin your teaching career!
9. Understand Your Scores

_Understand how tests are scored and how to interpret your test scores_

Of course, passing the _Praxis_ test is important to you so you need to understand what your scores mean and what your state requirements are.

**What are the score requirements for my state?**

States, institutions, and associations that require the tests set their own passing scores. Visit [www.ets.org/praxis/states](http://www.ets.org/praxis/states) for the most up-to-date information.

**If I move to another state, will my new state accept my scores?**

_The Praxis Series_ tests are part of a national testing program, meaning that they are required in many states for licensure. The advantage of a national program is that if you move to another state that also requires _Praxis_ tests, you can transfer your scores. Each state has specific test requirements and passing scores, which you can find at [www.ets.org/praxis/states](http://www.ets.org/praxis/states).

**How do I know whether I passed the test?**

Your score report will include information on passing scores for the states you identified as recipients of your test results. If you test in a state with automatic score reporting, you will also receive passing score information for that state.

A list of states and their passing scores for each test are available online at [www.ets.org/praxis/states](http://www.ets.org/praxis/states).

**What your _Praxis_ scores mean**

You received your score report. Now what does it mean? It’s important to interpret your score report correctly and to know what to do if you have questions about your scores.


**Put your scores in perspective**

Your score report indicates:

- Your score and whether you passed
- The range of possible scores
- The raw points available in each content category
- The range of the middle 50 percent of scores on the test

If you have taken the same test or other tests in _The Praxis Series_ over the last 10 years, your score report also lists the highest score you earned on each test taken.
Content category scores and score interpretation

Questions on the Praxis tests are categorized by content. To help you in future study or in preparing to retake the test, your score report shows how many raw points you earned in each content category. Compare your “raw points earned” with the maximum points you could have earned (“raw points available”). The greater the difference, the greater the opportunity to improve your score by further study.

Score scale changes

ETS updates Praxis tests on a regular basis to ensure they accurately measure the knowledge and skills that are required for licensure. When tests are updated, the meaning of the score scale may change, so requirements may vary between the new and previous versions. All scores for previous, discontinued tests are valid and reportable for 10 years, provided that your state or licensing agency still accepts them.

These resources may also help you interpret your scores:

- Understanding Your Praxis Scores (PDF), found at www.ets.org/praxis/scores/understand
- The Praxis Series Passing Scores (PDF), found at www.ets.org/praxis/scores/understand
- State requirements, found at www.ets.org/praxis/states
Appendix: Other Questions You May Have

Here is some supplemental information that can give you a better understanding of the Praxis tests.

What do the Praxis tests measure?
The Praxis tests measure the specific knowledge and skills that beginning teachers need. The tests do not measure an individual’s disposition toward teaching or potential for success, nor do they measure your actual teaching ability. The assessments are designed to be comprehensive and inclusive but are limited to what can be covered in a finite number of questions and question types. Teaching requires many complex skills that are typically measured in other ways, including classroom observation, video recordings, and portfolios.

Ranging from Agriculture to World Languages, there are more than 80 Praxis tests, which contain selected-response questions or constructed-response questions, or a combination of both.

Who takes the tests and why?
Some colleges and universities use the Praxis Core Academic Skills for Educators tests (Reading, Writing, and Mathematics) to evaluate individuals for entry into teacher education programs. The assessments are generally taken early in your college career. Many states also require Core Academic Skills test scores as part of their teacher licensing process.

Individuals entering the teaching profession take the Praxis content and pedagogy tests as part of the teacher licensing and certification process required by many states. In addition, some professional associations and organizations require Praxis II tests for professional licensing.

Do all states require these tests?
The Praxis Series tests are currently required for teacher licensure in approximately 40 states and United States territories. These tests are also used by several professional licensing agencies and by several hundred colleges and universities. Teacher candidates can test in one state and submit their scores in any other state that requires Praxis testing for licensure. You can find details at www.ets.org/praxis/states.

What is licensure/certification?
Licensure in any area—medicine, law, architecture, accounting, cosmetology—is an assurance to the public that the person holding the license possesses sufficient knowledge and skills to perform important occupational activities safely and effectively. In the case of teacher licensing, a license tells the public that the individual has met predefined competency standards for beginning teaching practice.

Because a license makes such a serious claim about its holder, licensure tests are usually quite demanding. In some fields, licensure tests have more than one part and last for more than one day. Candidates for licensure in all fields plan intensive study as part of their professional preparation. Some join study groups, others study alone. But preparing to take a licensure test is, in all cases, a professional activity. Because a licensure exam surveys a broad body of knowledge, preparing for a licensure exam takes planning, discipline, and sustained effort.

Why does my state require The Praxis Series tests?
Your state chose The Praxis Series tests because they assess the breadth and depth of content—called the “domain”—that your state wants its teachers to possess before they begin to teach. The level of content knowledge, reflected in the passing score, is based on recommendations of panels of teachers and teacher
Appendix: Other Questions You May Have

educators in each subject area. The state licensing agency and, in some states, the state legislature ratify the passing scores that have been recommended by panels of teachers.

**How were the tests developed?**

ETS consulted with practicing teachers and teacher educators around the country during every step of *The Praxis Series* test development process. First, ETS asked them which knowledge and skills a beginning teacher needs to be effective. Their responses were then ranked in order of importance and reviewed by hundreds of teachers.

After the results were analyzed and consensus was reached, guidelines, or specifications, for the selected-response and constructed-response tests were developed by teachers and teacher educators. Following these guidelines, teachers and professional test developers created test questions that met content requirements and ETS Standards for Quality and Fairness.*

When your state adopted the research-based *Praxis* tests, local panels of teachers and teacher educators evaluated each question for its relevance to beginning teachers in your state. During this “validity study,” the panel also provided a passing-score recommendation based on how many of the test questions a beginning teacher in your state would be able to answer correctly. Your state’s licensing agency determined the final passing-score requirement.

ETS follows well-established industry procedures and standards designed to ensure that the tests measure what they are intended to measure. When you pass the *Praxis* tests your state requires, you are proving that you have the knowledge and skills you need to begin your teaching career.

**How are the tests updated to ensure the content remains current?**

*Praxis* tests are reviewed regularly. During the first phase of review, ETS conducts an analysis of relevant state and association standards and of the current test content. State licensure titles and the results of relevant job analyses are also considered. Revised test questions are then produced following the standard test development methodology. National advisory committees may also be convened to review and revise existing test specifications and to evaluate test forms for alignment with the specifications.

**How long will it take to receive my scores?**

Scores for tests that do not include constructed response questions are available on screen immediately after the test. Scores for tests that contain constructed-response questions or essays aren't available immediately after the test because of the scoring process involved. Official score reports are available to you and your designated score recipients approximately two to three weeks after the test date for tests delivered continuously, or two to three weeks after the testing window closes for other tests. See the test dates and deadlines calendar at [www.ets.org/praxis/register/centers_dates](http://www.ets.org/praxis/register/centers_dates) for exact score reporting dates.

**Can I access my scores on the Web?**

All test takers can access their test scores via My *Praxis* Account free of charge for one year from the posting date. This online access replaces the mailing of a paper score report.

The process is easy—simply log into My *Praxis* Account at [www.ets.org/praxis](http://www.ets.org/praxis) and click on your score report. If you do not already have a *Praxis* account, you must create one to view your scores.

**Note:** You must create a *Praxis* account to access your scores, even if you registered by mail or phone.

Your teaching career is worth preparing for, so start today!
Let the Praxis Study Companion guide you.