



Praxis Elementary Education: Multiple Subject (5001) Exam



These slides overview information for each domain within the Elementary Education: Multiple Subject 5001 Exam. This test measures the pedagogical content knowledge and general teaching skills required to be a beginning elementary school teacher. This computer-delivered test consists of four subtests that can be taken together or separately.



TutoringEZ



The following information is available at www.TutoringEZ.com. All resources provided through TutoringEZ are for the purposes of helping teachers pass their teacher certification exams. However, all resources provided through TutoringEZ should not be uploaded and shared for public use.



Table of Contents

1. Test Overview
2. Math
3. Science
4. History
5. ELAR
6. Study Tips





Elementary Education: Multiple Subject (5001) Test Overview

Exam Overview

Math: 60 minutes, 60
questions

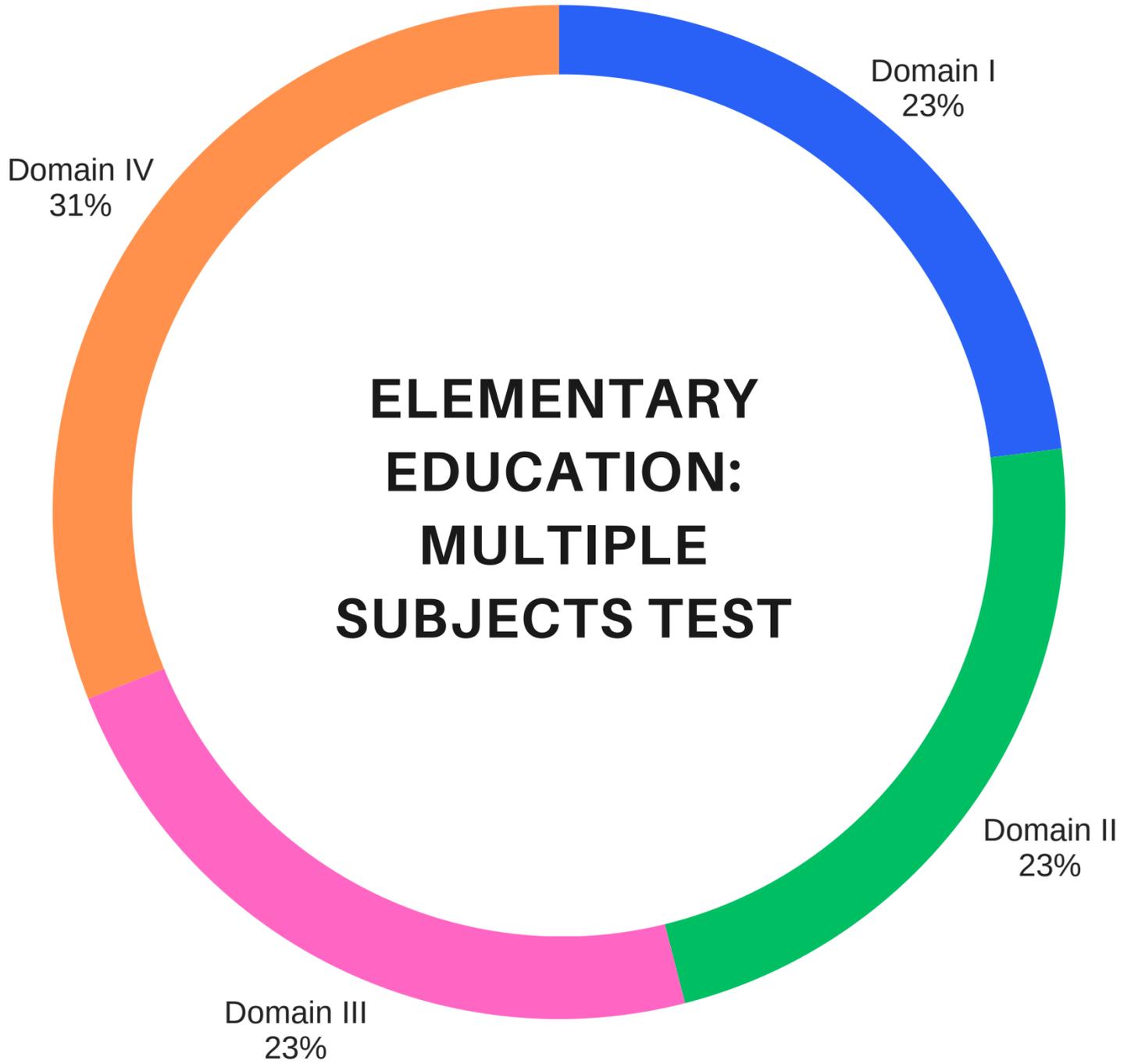
Science: 60 minutes, 60
questions

History: 60 minutes, 60
questions

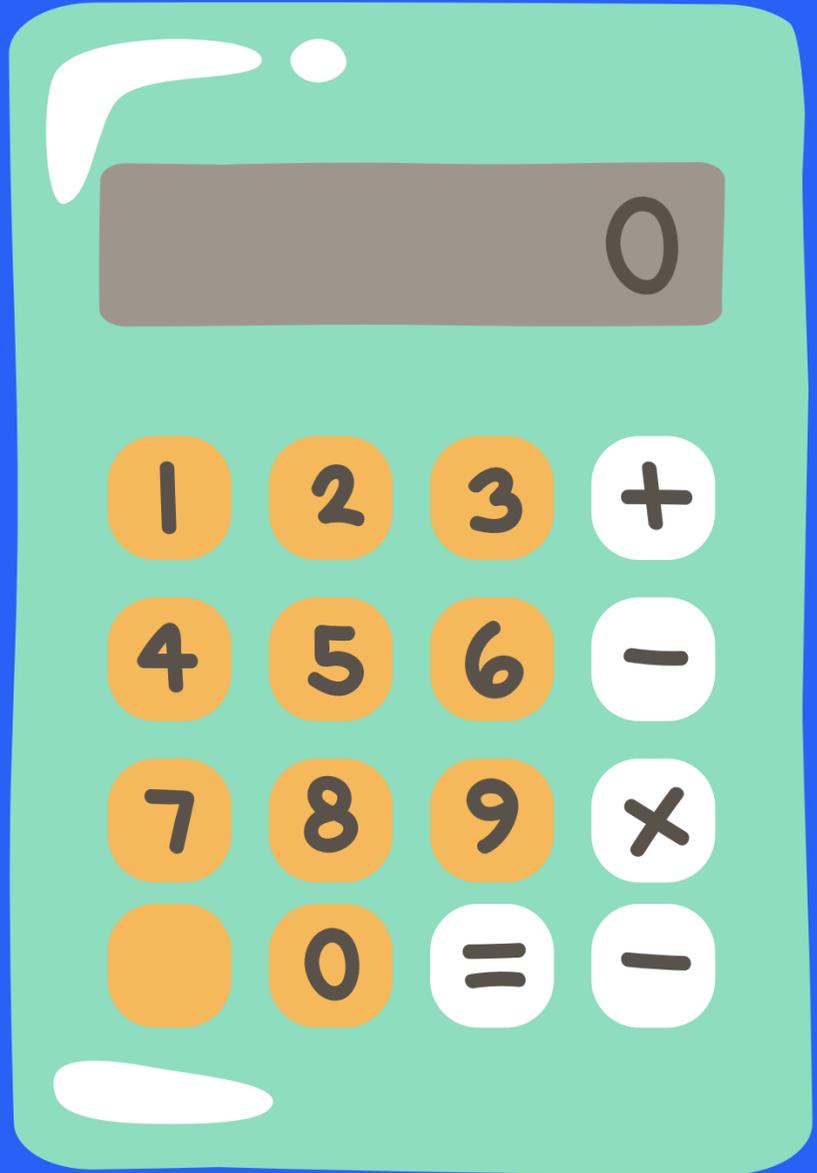
ELAR: 90 minutes, 80
questions



- I Math**
- II Science**
- III History**
- IV English Language Arts & Reading**



Domain I

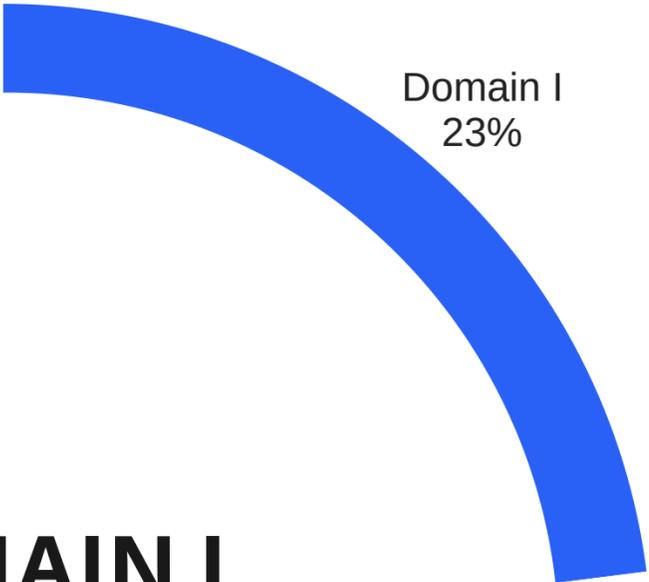


Math Subtest

Domain I Content Areas

- NUMBERS & OPERATIONS
- ALGEBRAIC THINKING
- GEOMETRY & MEASUREMENT
- DATA ANALYSIS & PROBABILITY

DOMAIN I
Math



Numbers & Operations

- Number sense and place value
- Operations with whole numbers, fractions, and decimals
- Ratio, proportion, and percent
- Properties of operations

Algebraic Thinking

- Patterns and relationships
- Variables and expressions
- Linear equations and functions
- Problem-solving with algebraic reasoning

Geometry & Measurement

- Properties of 2D and 3D shapes
- Perimeter, area, volume, and surface area
- Coordinate geometry
- Transformations and symmetry
- Measurement concepts and conversions

Data Analysis & Probability

- Data collection and representation
- Statistical measures (mean, median, mode, range)
- Probability concepts
- Interpreting graphs and charts

Sample Question 1

Which of the following best represents the commutative property of addition?

A. $5 + 0 = 5$

B. $3 + 7 = 7 + 3$

C. $(2 + 4) + 6 = 2 + (4 + 6)$

D. $8 + 2 = 10$

Sample Question 1

Answer: B

The commutative property states that the order of addends does not change the sum.

Sample Question 2

A student claims that $\frac{2}{3} \div \frac{1}{4} = \frac{2}{12}$ because 'you divide the numerators and divide the denominators.' Which instructional approach would best help the student develop conceptual understanding of fraction division?

- A. Show the student the algorithm: multiply by the reciprocal of the divisor
- B. Have the student repeatedly practice fraction division problems until mastery
- C. Use a visual model to show how many $\frac{1}{4}$ s fit into $\frac{2}{3}$, connecting division to 'how many groups'
- D. Tell the student the answer is wrong and provide the correct procedure

Sample Question 2

Answer: C

The student has overgeneralized fraction multiplication rules. A visual/conceptual model helps build understanding that division means 'how many groups of the divisor fit into the dividend.' This connects to the student's prior knowledge of division as measurement and provides a foundation for why we multiply by the reciprocal. Simply showing the algorithm (A) doesn't address the conceptual misunderstanding.

Sample Question 3

A rectangular garden plot is divided into 6 equal sections. Each section has an area of 24 square feet. If the total length of the garden is 18 feet, what is the width of the garden?

- A. 4 feet
- B. 6 feet
- C. 8 feet
- D. 12 feet

Sample Question 3

Answer: C

Total area = 6 sections \times 24 sq ft = 144 sq ft. Using Area = length \times width: $144 = 18 \times$ width, so width = $144 \div 18 = 8$ feet. This multi-step problem requires understanding area concepts, multiplication, and working backwards from total area. Students must recognize they need to find total area first before using the area formula.



Science Subtest



Domain II Content Areas

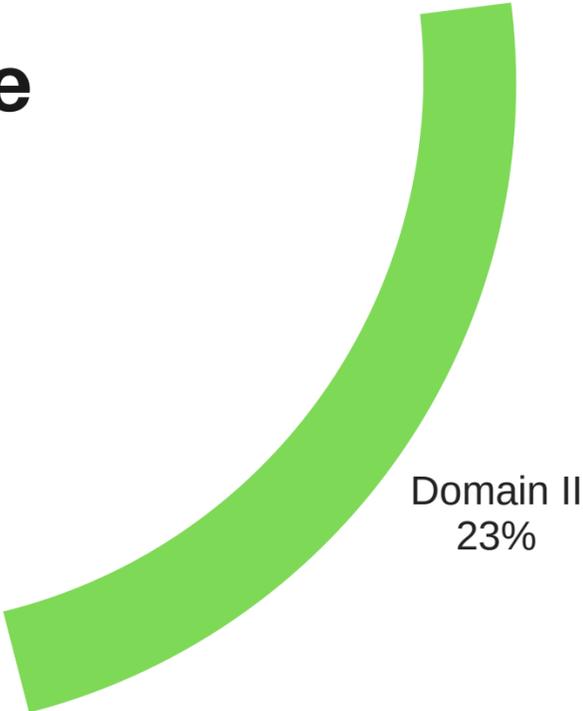
EARTH & SPACE SCIENCE

LIFE SCIENCE

PHYSICAL SCIENCE

SCIENCE AS INQUIRY

DOMAIN II Science



Earth & Space Science

- Earth's systems (geosphere, hydrosphere, atmosphere, biosphere)
- Weather and climate
- Rocks, minerals, and the rock cycle
- Solar system and space

Life Science

- Characteristics of living things
- Plant and animal structures and functions
- Ecosystems and food webs
- Heredity and adaptation
- Life cycles and reproduction

Physical Science

- Matter and its properties
- Energy forms and transformations
- Motion and forces
- Light, sound, electricity, and magnetism

Science as Inquiry

- Scientific method and investigation
- Observation, measurement, and data collection
- Analyzing and interpreting data
- Safety procedures and lab practices

Sample Question 1

Students are investigating the water cycle. They place a clear plastic bag over a plant, seal it, and observe water droplets forming inside the bag after several hours in sunlight. Which process is primarily responsible for the water droplets forming?

- A. Photosynthesis releasing water as a byproduct
- B. Transpiration followed by condensation
- C. Cellular respiration in the plant's leaves
- D. Evaporation from the soil only

Sample Question 1

Answer: B

Transpiration is the process where plants release water vapor through stomata in their leaves. This water vapor then condenses on the cooler plastic bag surface, forming visible droplets. While photosynthesis produces oxygen (not water as a primary product), and soil evaporation contributes, the primary source of water in this sealed system is transpiration from the living plant, followed by condensation.

Sample Question 2

A student observes that a metal spoon feels colder than a wooden spoon, even though both have been sitting on the counter at room temperature for several hours. Which explanation best accounts for this observation?

- A. The metal spoon is actually at a lower temperature than the wooden spoon
- B. Metal has higher thermal conductivity and transfers heat away from the hand more rapidly
- C. Wood generates its own heat because it was once living matter
- D. The human hand cannot accurately sense temperature differences

Sample Question 2

Answer: B

Both objects are at room temperature (thermal equilibrium with environment), but metal has much higher thermal conductivity than wood. When touched, metal conducts heat away from the warm hand much faster than wood, making it feel colder even though both are the same temperature. This tests understanding of thermal properties of materials and the difference between temperature and heat transfer. This is a common misconception that 'cold' objects are colder—they just transfer heat differently.

Sample Question 3

A teacher demonstrates that when a burning candle is covered with a glass jar, the flame goes out after several seconds. The teacher then shows that a similar candle burns much longer when covered with a larger jar. Which scientific concept does this best demonstrate?

- A. Combustion requires oxygen, and the amount of available oxygen affects burn duration
- B. Larger containers have stronger gravitational pull on flames
- C. Heat rises more quickly in smaller spaces
- D. Glass thickness determines how long fire can burn

Sample Question 3

Answer: A

Combustion requires three elements: fuel (wax), heat, and oxygen. When the jar covers the candle, it seals off the oxygen supply. The flame consumes available oxygen and produces carbon dioxide. A larger jar contains more oxygen, so the candle burns longer before depleting the oxygen supply. This demonstrates the necessity of oxygen for combustion and introduces experimental control (same candle, different jar sizes) to test a variable.



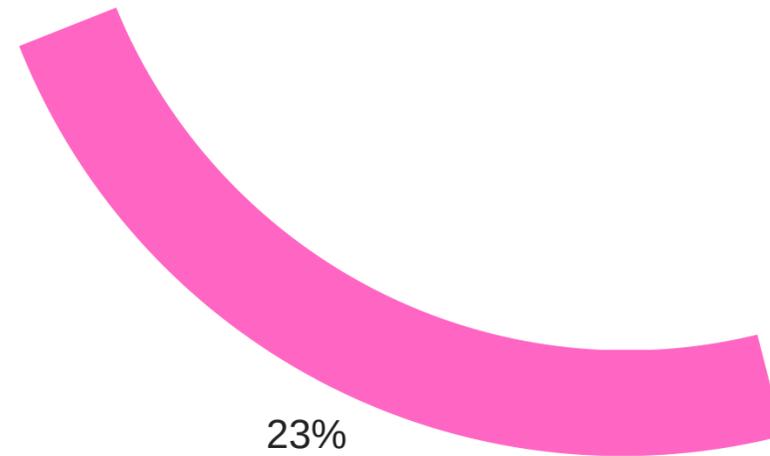
History Subtest



Domain III Content Areas



DOMAIN III History



United States History

- Colonial period and American Revolution
- Constitution and founding principles
- Westward expansion and Civil War
- 20th century events and modern America

World History

- Ancient civilizations
- World cultures and major religions
- Global connections and interactions

Government & Civics

- Three branches of government
- Rights and responsibilities of citizens
- Democratic principles and processes
- Local, state, and federal government

Geography

- Map skills and spatial reasoning
- Physical and human geography
- Regions and their characteristics
- Human-environment interaction

Economics

- Scarcity and resource allocation
- Supply and demand
- Economic systems
- Personal finance and consumer literacy

Sample Question 1

A teacher wants students to understand the concept of federalism in the U.S. government. Which example would best illustrate the division of powers between state and federal governments?

- A. The federal government collects income taxes while states cannot collect any taxes
- B. States set requirements for driver's licenses while the federal government regulates interstate commerce
- C. The president can override any state law that conflicts with federal policy
- D. All laws must be approved by both state and federal governments before taking effect

Sample Question 1

Answer: B

This correctly illustrates federalism's division of powers: states have reserved powers (like issuing driver's licenses) while the federal government has enumerated powers (like regulating interstate commerce per the Commerce Clause). Option A is incorrect because states do collect taxes. Option C overstates federal power (supremacy clause has limits). Option D incorrectly suggests all laws need dual approval.

Sample Question 2

Which statement best explains how the system of checks and balances limits the power of the judicial branch?

- A. Congress can impeach and remove federal judges, and the president appoints judges with Senate approval
- B. The judicial branch must ask permission from Congress before hearing cases
- C. The president can overturn Supreme Court decisions with executive orders
- D. State courts can override federal court decisions if they disagree

Sample Question 2

Answer: A

This accurately describes two key checks on judicial power: impeachment power (legislative check) and appointment power (executive/legislative check). The judicial branch has independence in hearing cases (B is wrong), the president cannot overturn SCOTUS rulings (C is wrong), and federal courts are supreme over state courts on federal matters (D is wrong).

Sample Question 3

A teacher is planning a unit on supply and demand. Students examine data showing that when a hurricane disrupts oil production, gasoline prices increase even in areas far from the hurricane. This scenario best illustrates which economic concept?

- A. Interdependence in a market economy
- B. The law of diminishing returns
- C. Government price controls
- D. Opportunity cost of production

Sample Question 3

Answer: A

This scenario demonstrates market interdependence—how disruptions in one location affect prices nationally/globally because markets are interconnected. When supply decreases (reduced oil production), prices increase throughout the interconnected system. This is not diminishing returns (B), which relates to productivity. No government intervention is mentioned (C), and opportunity cost (D) relates to choices foregone, not market price effects.

Domain IV

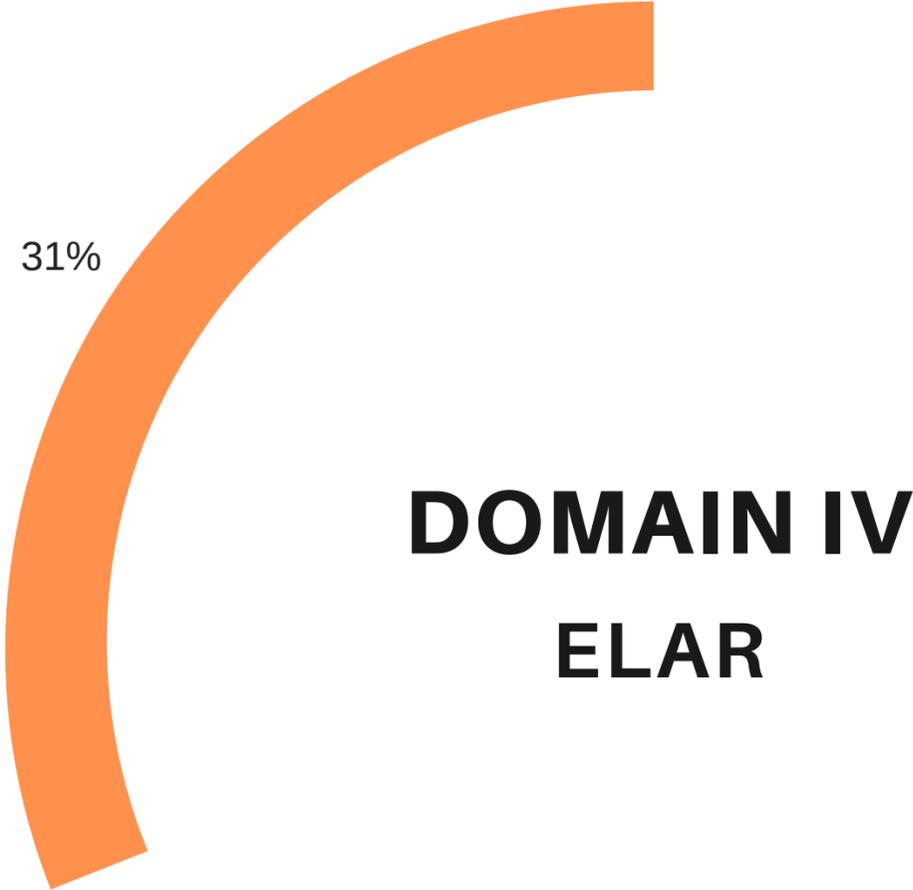


ELAR Subtest



Domain IV Content Areas

- READING DEVELOPMENT
- WRITING DEVELOPMENT
- SPEAKING & LISTENING
- LANGUAGE IN CONTEXT



Reading Development

- Phonological and phonemic awareness
- Phonics and word analysis
- Fluency
- Vocabulary development
- Reading comprehension strategies

Writing Development

- Writing process (prewriting, drafting, revising, editing, publishing)
- Writing genres (narrative, informative, opinion/argumentative)
- Grammar and conventions
- Sentence structure and mechanics

Speaking & Listening

- Collaborative discussions
- Oral presentation skills
- Active listening strategies

Language in Context

- Literary elements and text structures
- Text complexity and analysis
- Integration of knowledge and ideas
- Research skills

Sample Question 1

A third-grade teacher notices that a student can decode words accurately but reads very slowly, often repeating words and losing meaning. The student's reading rate is 45 words per minute with 95% accuracy. Which intervention would most effectively address this student's primary reading challenge?

- A. Provide additional phonics instruction to strengthen decoding skills
- B. Implement repeated readings with prosody modeling to build automaticity
- C. Focus on vocabulary development through direct instruction
- D. Assign more challenging texts to increase engagement

Sample Question 1

Answer: B

The student demonstrates adequate accuracy (95%) but lacks fluency/automaticity, which is indicated by the slow reading rate and loss of meaning. Repeated readings with prosody modeling directly targets fluency by building automatic word recognition and appropriate expression. The student doesn't need more phonics (accuracy is strong), and more challenging texts would likely decrease both rate and comprehension.

Sample Question 2

A teacher is analyzing a student's writing sample: 'The dog ran to the park. He played. Then he came home.' Which developmental writing characteristic is most evident, and what would be the most appropriate next instructional focus?

- A. Limited sentence variety; focus on complex sentence structures using subordinating conjunctions
- B. Spelling errors; focus on phonetic patterns and word study
- C. Lack of descriptive language; focus on adjective and adverb usage
- D. Poor organization; focus on paragraph structure

Sample Question 2

Answer: A

The writing shows only simple sentences with basic subject-verb-object structure. The student is ready to move beyond simple sentences to more sophisticated sentence combining using subordinating conjunctions (because, although, when, etc.) and coordinating conjunctions. While descriptive language is limited, sentence variety is the more foundational skill that will also create opportunities for elaboration.

Sample Question 3

During a read-aloud of an informational text about ecosystems, which teacher question would best promote higher-order thinking aligned with analyzing text structure?

A. What is a food chain?

B. Can you predict what would happen if the producers disappeared from this ecosystem?

C. How does the author organize information to show the relationship between cause and effect in this ecosystem?

D. Which animals in the text are herbivores?

Sample Question 3

Answer: C

This question specifically addresses text structure analysis (cause/effect) and requires students to consider the author's craft and organizational choices. Option B involves prediction and is higher-order, but doesn't address text structure. Options A and D are recall questions.



Study Tips & Test-Taking Strategies

Preparation Strategies

- Review content standards for each subject area at the elementary level
- Practice with sample questions from official ETS study materials
- Focus on understanding concepts, not just memorizing facts
- Allocate study time based on the percentage each content area represents

Study Resources

- Official ETS Praxis Study Companion (free download)
- ETS Practice Tests (available for purchase)
- State-specific teaching standards documents
- Common Core State Standards (or your state's standards)
- Professional education textbooks from teacher preparation programs

Subject-Specific Study Tips

- **Math:** Understand why mathematical concepts work, not just how to compute. Practice explaining mathematical reasoning appropriate for elementary students.
- **Science:** Review the scientific method, basic concepts in all science domains, and age-appropriate inquiry-based instruction methods.
- **History:** Know key historical events, important documents (Constitution, Bill of Rights), government structure, and basic geography concepts.
- **ELAR:** Focus on research-based reading instruction methods, the five components of reading (phonemic awareness, phonics, fluency, vocabulary, comprehension), and writing process stages.

Remember!

This exam assesses your knowledge of content AND your understanding of how to teach that content to elementary students.

Consider both aspects as you prepare!

Thank You

TutoringEZ