

**Massachusetts  
Tests for Educator Licensure<sup>®</sup> (MTEL<sup>®</sup>)**



**Early  
Childhood (02)**

**PRACTICE TEST**



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## INTRODUCTION

This document is a printable version of the Massachusetts Tests for Educator Licensure® (MTEL®) Early Childhood (02) Online Practice Test.

This practice test is a sample test consisting of 100 multiple-choice questions and 2 open-response item assignments. An [Answer Key Worksheet](#), [Answer Sheet](#), and [Evaluation Chart](#) by test objective are included for the multiple-choice questions. Blank [Response Sheets](#), [Evaluation Information](#), and [Sample Responses and Analyses](#), as well as a [Scoring Rubric](#), are included for the open-response items. Lastly, there is a [Practice Test Score Calculation](#) worksheet.

## PURPOSE OF THE PRACTICE TEST

The practice test is designed to provide an additional resource to help you effectively prepare for the MTEL Early Childhood (02) test. The primary purpose of the practice test is to help you become familiar with the structure and content of the test. It is also intended to help you identify areas in which to focus your studies. Education faculty and administrators of teacher preparation programs may also find this practice test useful as they help students prepare for the official test.

## TAKING THE PRACTICE TEST

In order to maximize the benefits of the practice test, it is recommended that you take this test under conditions similar to the conditions under which the official MTEL tests are administered. Try to take the practice test in a quiet atmosphere with few interruptions and limit yourself to the four-hour time period\* allotted for the official test administration. You will find your results to be more useful if you refer to the answer key only after you have completed the practice test.

## INCORPORATING THE PRACTICE TEST IN YOUR STUDY PLAN

Although the primary means of preparing for the MTEL is your college education, adequate preparation prior to taking or retaking the MTEL test is strongly recommended. How much preparation and study you need depends on how comfortable and knowledgeable you are with the content of the test.

The first step in preparing to take the MTEL is to identify what information the test will address by reviewing the objectives for your field. A complete, up-to-date list of the [Test Objectives](#) is included in the [Test Information Booklet](#) for each test field. The test objectives are the core of the testing program and a helpful study tool. Before taking or retaking the official test, focus your study time on those objectives for which you wish to strengthen your knowledge.

This practice test may be used as one indicator of potential strengths and weaknesses in your knowledge of the content on the official test. However, because of potential differences in format and difficulty between the practice test and an official MTEL Early Childhood (02) test, it is not possible to predict precisely how you might score on an official MTEL Early Childhood (02) test. Keep in mind that the subareas for which the test weighting is greatest will receive emphasis on this test. Refer to the [Test Information Booklet](#) for additional information about how to prepare for the test.

\* For the Communication and Literacy Skills test, candidates may take one or both subtests during the four-hour session.

**EARLY CHILDHOOD  
PRACTICE TEST**

## GENERAL TEST DIRECTIONS

This practice test consists of two sections: (1) a multiple-choice question section and (2) an open-response item assignment section. Each multiple-choice question on the practice test has four answer choices. Read each question carefully and choose the ONE best answer. Record each answer on the answer sheet provided.

- Sample Question:
1. What is the capital of Massachusetts?
    - A. Worcester
    - B. New Bedford
    - C. Boston
    - D. Springfield

The correct answer to this question is C. You would indicate that on the answer sheet.

The open-response section of this practice test requires written responses. Directions for the open-response item assignments appear immediately before those assignments.

You may work on the multiple-choice questions and open-response item assignments in any order that you choose. You may wish to monitor how long it takes you to complete the practice test. When taking the actual MTEL Early Childhood (02) test, you will have one four-hour test session in which to complete the test.

**MULTIPLE-CHOICE ANSWER SHEET**

<b>Question Number</b>	<b>Your Response</b>
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<b>Question Number</b>	<b>Your Response</b>
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## MULTIPLE-CHOICE QUESTIONS

1. Which of the following statements offers the most accurate comparison of the developmental theories of Jean Piaget and Lev Vygotsky?
  - A. Piaget described child development as the result of individual exploration; Vygotsky saw it as stimulated by social interaction.
  - B. Both theorists describe child development as a predictable set of cause-and-effect relationships.
  - C. Piaget described child development as a function of parental intervention; Vygotsky saw it as independent of outside influence.
  - D. Both theorists describe child development as corresponding to a fixed timeline.
2. A group of children in a preschool class are playing house and pretending to be various members of a family. Engaging in this type of sociodramatic play is important to children's development primarily because it allows them to:
  - A. learn important differences in family roles.
  - B. explore and manipulate group dynamics.
  - C. mimic codes of behavior they witness in the adult world.
  - D. think and behave in more complex ways in a risk-free environment.
3. A group of seven-year-old children are playing a make-believe game in which they are pretending to be pirates drawing a map to buried treasure. This activity will most likely lead to the children's acquisition of knowledge by:
  - A. promoting the development of their gross-motor skills.
  - B. improving the acuity of their senses.
  - C. influencing their development of spatial reasoning.
  - D. enhancing their ability to categorize.
4. According to the theories of Lawrence Kohlberg, children's moral thinking develops:
  - A. in tandem with cognitive development, so progress can be predicted based on academic achievement.
  - B. in unpredictable ways in response to several complex environmental factors.
  - C. in steps, beginning with responding to external authority and moving toward respecting universal principles.
  - D. in emulation of their role models, so adults constitute the key influence in establishing a child's ethics and values.

5. As babies begin to move around at the end of infancy, they rely increasingly on the process of social referencing to interpret the actions of significant others in order to determine:
- A. the degree of dexterity that is required for specific tasks.
  - B. the limits of their caregiver's supervision.
  - C. the appropriate response to a new situation.
  - D. the duration of their sleep cycles.
6. An 18-month-old child has begun responding to requests with "no" and doing the opposite of what others want. In terms of emotional development, this negativism is typically a manifestation of the child's:
- A. use of reversible thinking.
  - B. sense of independence.
  - C. use of cross-modal perception.
  - D. formation of a strong attachment.
7. Which of the following play activities would be most likely to foster a five-year-old child's developing sense of empathy?
- A. building a tower with blocks
  - B. feeding a guinea pig
  - C. constructing a hand puppet
  - D. playing music on a keyboard
8. To promote the cognitive and physical development of a one-year-old baby, it is most effective for caregivers to choose toys that the baby finds interesting to:
- A. hear (e.g., rattles).
  - B. manipulate (e.g., blocks).
  - C. touch (e.g., stuffed animals).
  - D. watch (e.g., mobiles).
9. The development of stranger anxiety in infants between seven and nine months of age is most closely linked to their:
- A. increased memory.
  - B. increased vocalization.
  - C. increased visual ability.
  - D. increased emotional sensitivity.
10. Experiments have shown that babies develop a fear of heights only after they begin to crawl. This finding confirms the direct relationship between cognitive development and:
- A. sensorimotor experience.
  - B. threshold of responsiveness.
  - C. cross-modal perception.
  - D. operant conditioning.



11. When children grow up in an environment in which their wants and needs are consistently ignored, these children may eventually perceive that their behavior is of no consequence due to an inability to influence events in their lives. This negative impact on the child's development is called:
- A. learned helplessness.
  - B. depersonalization.
  - C. cognitive dissonance.
  - D. oppositional identity.
12. An 18-month-old child has begun to acquire one-word vocabulary at a significant rate. Which of the following language skills is this child likely to develop next?
- A. responding correctly to indirect requests
  - B. recognizing different grammatical structures
  - C. modifying speech to take the listener into account
  - D. using two-word sentences to identify objects and actions
13. The psychological process during early childhood in which children try to take on the qualities of important people in their environment is called:
- A. social co-construction.
  - B. self-regulation.
  - C. identification.
  - D. induction.
14. At six months of age, children are excited by a game played with an adult in which adults place their hands over their own eyes and then remove their hands. According to Jean Piaget, this interest and enthusiasm is due to the children's:
- A. development of hand-eye coordination.
  - B. acquisition of object permanence.
  - C. progress in locomotion.
  - D. use of trial and error for problem solving.
15. The improvement in visual capacity and acuity in three-month-old infants is accompanied by which of the following behavioral developments?
- A. personal referencing
  - B. babbling
  - C. social smiling
  - D. jargoning

16. For which of the following reasons do the bones in an infant's hands and wrists ossify and harden before others in the body?
- A. to support an increase in muscle fibers during development in infancy
  - B. to assimilate the increased calcium uptake in the extremities of the body
  - C. to protect the infant from falling during the first stages of walking
  - D. to make it possible for the infant to grasp and pick up objects
17. A third-grade student has limited mobility and cannot hold a pencil. She relies on a classroom volunteer to write for her in school and she relies on her parents to write for her at home. Recently, the student's parents have requested assistive technology that would allow her to do written work independently. When the opportunity arises to purchase this equipment, the school should primarily consider which of the following factors?
- A. the expense of the equipment
  - B. the likely effect of the equipment on the general education setting
  - C. the potential impact of the equipment on student learning
  - D. the availability of the equipment
18. Of the following conditions that affect learning and development, which one occurs as the result of brain damage to a child during pregnancy, birth, or early infancy?
- A. cerebral palsy
  - B. fragile X syndrome
  - C. dyslexia
  - D. Down syndrome
19. A kindergarten boy with an anxiety-withdrawal disorder will most likely have difficulty:
- A. learning to read due to his short attention span.
  - B. managing his behavior due to his poor impulse control.
  - C. learning to write due to his poor physical coordination.
  - D. building peer friendships due to his limited social skills.
20. A three-year-old child is highly sensitive to noise and becomes fixated on certain tasks and objects. The child has difficulty regulating anxiety and recognizing nonverbal communication. These behaviors are typical of which of the following syndromes?
- A. Asperger's syndrome
  - B. Down syndrome
  - C. Turner's syndrome
  - D. Reye's syndrome

21. Which of the following examples best illustrates the parents' role in their baby's proximal development?
- A. Parents monitor their baby's progress relative to predetermined developmental milestones.
  - B. Parents determine how long their baby should be exposed to specific sensory stimuli.
  - C. Parents foster their baby's emotional attachment through prolonged close physical contact.
  - D. Parents help their baby pick up objects until the baby is able to do it independently.
22. A preschool child has recently been diagnosed with juvenile diabetes. His family has approached the child's teacher to ask for the school's assistance to help their child understand and manage the disease. Which of the following would be the most appropriate response for the child's teacher in this situation?
- A. locating relevant informational literature for the family
  - B. working with the school's support services to identify resources for such children and their families
  - C. forwarding the family's name to local social service agencies
  - D. asking the school administration to plan a diabetes-screening clinic for all children
23. Which of the following best describes the primary purpose of an Individualized Family Service Plan (IFSP) for a child with special needs?
- A. to assess how the child's developmental delays affect current educational performance
  - B. to document instructional interventions that the child's parents have implemented
  - C. to establish and address flexible priorities for the child's development across all domains
  - D. to outline how assistive technology can be used to improve the child's academic experience
24. A child who has been diagnosed with an absence seizure disorder is most likely to experience:
- A. permanent neurological impairment.
  - B. brief interruptions in awareness.
  - C. delays in motor skill development.
  - D. episodes of aggressive behavior.
25. The speech dysfluency of stuttering most frequently has a detrimental effect on a child's:
- A. reading comprehension skills.
  - B. feeling of autonomy.
  - C. written language skills.
  - D. sense of self-worth.

26. A second-grade student arrives at school with several large bruises that he cannot explain. Which of the following is the appropriate course of action for the teacher in this case?
- A. noting the incident in the child's records
  - B. making contact with the child's primary caregiver(s)
  - C. following the school's protocol for mandated reporting
  - D. requesting a referral to the school psychologist
27. Developmental delay and cognitive impairment, along with eyes that are smaller than average, a poorly developed upper lip, and flattened cheekbones, are typical of children with:
- A. cystic fibrosis.
  - B. cerebral palsy.
  - C. muscular dystrophy.
  - D. fetal alcohol syndrome.
28. A child with fine-motor impairments will likely have the most difficulty performing which of the following tasks?
- A. kicking a ball
  - B. carrying a book
  - C. drawing a picture
  - D. reading a story
29. A child diagnosed with childhood-onset pervasive developmental disorder exhibits aggressive and violent behaviors toward herself and others. By law, a child with this diagnosis and who exhibits these behaviors:
- A. must be placed in the least restrictive environment.
  - B. must be educated within the public school setting.
  - C. must be placed in an alternative setting at the family's expense.
  - D. must be supervised by an aide at all times in a classroom.
30. In which of the following organizations do trained home visitors model verbal interactions and parenting techniques through the use of selected books and toys to enhance early literacy?
- A. Massachusetts Department of Public Health
  - B. Parent-Child Home Program
  - C. Institute for Responsive Education
  - D. Massachusetts Healthy Schools Network
31. Children raised in a family environment with a high level of discord and social dysfunction are typically at a significantly greater risk of experiencing:
- A. receptive language disorders.
  - B. autistic spectrum disorders.
  - C. expressive language disorders.
  - D. anxiety disorders.

32. When evaluating books for a classroom library, which of the following features of a book should a second-grade teacher consider *first*?
- A. the number of illustrations
  - B. the length
  - C. the durability
  - D. the literary quality
33. Which of the following is a defining characteristic of picture books written for young children?
- A. a large cast of characters
  - B. an elaborate, specific rhyme scheme
  - C. an emphasis on sight words
  - D. a simple illustrated narrative
34. Novels such as *Little House on the Prairie* by Laura Ingalls Wilder and *Where the Red Fern Grows* by Wilson Rawls are characteristic of which of the following literary genres?
- A. folktales
  - B. memoirs
  - C. suspense
  - D. fantasy
35. Using wordless children's books within a language arts curriculum is most effective for promoting children's:
- A. emotional and social development.
  - B. awareness of narrative structure.
  - C. oral and written language skills.
  - D. fine motor skills.
36. Which of the following authors is best known for books in which children come to terms with their anger and fears?
- A. Jan Brett
  - B. Mitsumasa Anno
  - C. Maurice Sendak
  - D. Margaret Wise Brown
37. **Read the haiku below; then answer the question that follows.**
- A moose's head lifts  
silently from the water,  
a rippling sun
- The poem features which of the following literary devices?
- A. metaphor
  - B. simile
  - C. hyperbole
  - D. personification

38. Together with literary merit and popularity, which of the following is the most important consideration for the evaluation of children's literature for second-grade readers?
- A. the authenticity of the book's characters
  - B. the availability of other texts written by the book's author
  - C. the historical context of the book's theme
  - D. the complexity of the book's story line
39. Introducing young readers to several types of fictional, nonfictional, and informational books will most significantly broaden their awareness of:
- A. different purposes and contexts for writing.
  - B. practical methods for learning new vocabulary.
  - C. important conventions of Standard English grammar.
  - D. useful strategies for drafting and revising writing.
40. Both the dream world described in *Peter Pan* and the talking animals of *The Wind in the Willows* represent characteristic aspects of which of the following genres of children's literature?
- A. fable
  - B. nursery rhyme
  - C. tall tale
  - D. fantasy
41. The children's books written by Theodor Geisel as Dr. Seuss are recognized internationally for their:
- A. plausible settings.
  - B. inventive wordplay.
  - C. realistic illustrations.
  - D. dense narratives.
42. A three-year-old child pairs her drawing of a dog with a scribbled caption intended to describe the picture. In the developmental continuum of writing, the child's use of scribbling is significant as an indication that she understands that writing is a:
- A. necessary adjunct to visual imagery.
  - B. social practice that follows certain formal conventions.
  - C. graphic representation of specific phonemic relationships.
  - D. means of communicating ideas.

43. Which of the following is the most important characteristic of effective persuasive writing?
- A. a coherent, logical argument
  - B. a relaxed, conversational tone
  - C. a clear, forceful conclusion
  - D. a vivid, colorful vocabulary
44. The most appropriate reason to begin a new paragraph while drafting an essay is to:
- A. introduce a new subject.
  - B. vary the essay's rhythm.
  - C. limit an overlong section.
  - D. add interesting details.
45. In learning to write, a child begins to use letters to represent words. He has begun to leave spaces between words and to mix upper- and lowercase letters. As his writing development progresses, this child would likely next begin to:
- A. use standard spelling.
  - B. recognize the differences between letters and words.
  - C. represent initial and final sounds or morphemes in words.
  - D. use only capital letters.
46. **Read the passage below; then answer the question that follows.**
- <sup>1</sup>They are one of my favorite foods. <sup>2</sup>I could eat them every morning. <sup>3</sup>I especially love cranberry ones, because the combination of tart and sweet is so refreshing. <sup>4</sup>No one has to wonder what I want for breakfast—my answer will always be muffins! <sup>5</sup>I also like apricot, almond, and peach.
- Which of the following sentences should be moved to the beginning of the paragraph to improve its logical organization?
- A. Sentence 2
  - B. Sentence 3
  - C. Sentence 4
  - D. Sentence 5

47. Which of the following prewriting strategies is most effective for organizing a piece of writing from start to finish?
- A. brainstorming
  - B. outlining
  - C. clustering
  - D. notetaking

48. **Read the sentence below; then answer the question that follows.**

Until recess was over, the girls talked with they're friends on the play-ground.

Which of the following revisions would correct the spelling error in the sentence above?

- A. Change *Until* to *Untill*.
- B. Change *they're* to *their*.
- C. Change *friends* to *freinds*.
- D. Change *playground* to *play ground*.

49. **Read the sentence below; then answer the question that follows.**

"Was it Gwendolyn Brooks," Shawna asked, "who wrote the poem "Ode on a Grecian Urn"?"

Which of the following sentences corrects the punctuation errors in the sentence above?

- A. "Was it Gwendolyn Brooks?" Shawna asked, "who wrote the poem "Ode on a Grecian Urn"?"
  - B. 'Was it Gwendolyn Brooks,' Shawna asked, 'who wrote the poem "Ode on a Grecian Urn"?'
  - C. Was it Gwendolyn Brooks, Shawna asked, who wrote the poem "Ode on a Grecian Urn?"
  - D. "Was it Gwendolyn Brooks" Shawna asked, "who wrote the poem 'Ode on a Grecian Urn'?"
50. **Read the sentence below; then answer the question that follows.**

I am so tired I could sleep for a year.

This sentence acquires meaning by using which of the following types of figurative language?

- A. metaphor
- B. simile
- C. hyperbole
- D. personification



51. Use the information below to answer the question that follows.

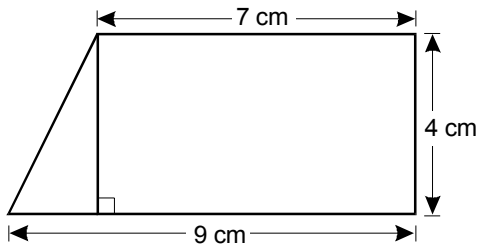
$$X = \{0, 2, 4, 6, 8, 10\}$$

$$Y = \{0, 4, 8, 12, 16\}$$

Given the sets described above, what is  $X \cap Y$ ?

- A.  $\{2, 6, 10, 12, 16\}$   
 B.  $\{0, 2, 4, 6, 8, 10, 12, 16\}$   
 C.  $\{0, 4, 8\}$   
 D.  $\{1, 3, 5, 7, 9, 11, 13, 14, 15\}$

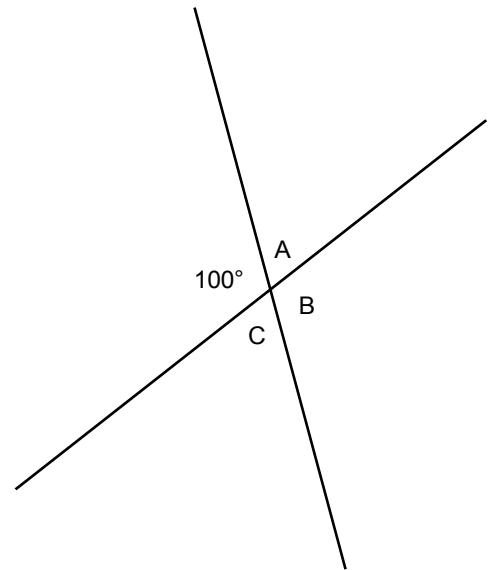
52. Use the diagram below to answer the question that follows.



Which of the following expressions shows the correct procedure for calculating the area of the shape shown above?

- A.  $\frac{1}{2}(4 \times 9)$   
 B.  $\frac{1}{2}[(4 \times 9) - (4 \times 7)]$   
 C.  $(4 \times 7) + \frac{1}{2}(4 \times 2)$   
 D.  $(4 \times 9) - (4 \times 2)$

53. Use the diagram below to answer the question that follows.

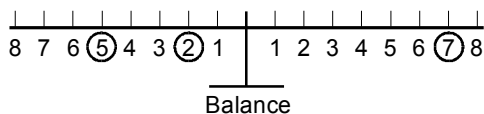


The diagram above shows the intersection of two straight lines. Based on the diagram, which of the following statements must be true?

- A. The measure of angle  $A$  equals the measure of angle  $B$ .  
 B. The measure of angle  $C$  equals  $100^\circ$ .  
 C. The measure of angle  $B$  equals  $80^\circ$ .  
 D. The measure of angle  $A$  equals the measure of angle  $C$ .

54. A kindergarten class is playing a game involving the exchange of pennies for dimes and dimes for dollars. A die is rolled and that number of pennies is given to the roller. When a student has enough pennies, they may be exchanged for a dime. This process continues until the student has collected enough dimes to exchange for a dollar bill. Carrying out this type of activity is likely to be most effective for helping the students develop an understanding of:
- A. the idea of multiplication as repeated addition.
  - B. fundamental aspects of the base-ten numeration system.
  - C. elementary concepts of factoring.
  - D. the history of the U.S. currency system.

55. Use the diagram below to answer the question that follows.



Which of the following mathematics topics is best demonstrated by the diagram above?

- A. subtraction
- B. composite numbers
- C. addition
- D. prime numbers

56. Use the incomplete math problem below to answer the question that follows.

$$\begin{array}{r} 2 \square 4 \\ - 7 \square \\ \hline \square 3 9 \end{array}$$

The standard algorithm for subtraction that is used to solve the problem shown above requires application of which of the following computational procedures?

- A. factoring
  - B. regrouping
  - C. simplification
  - D. rounding
57. Use the problem below to answer the question that follows.

A box contains a total of 105 old crayons of three different colors—red, yellow, and brown. There are twice as many yellow crayons as red crayons, and there are twice as many brown crayons as yellow crayons. How many red crayons are in the box?

Which of the following equations accurately represents the problem above?

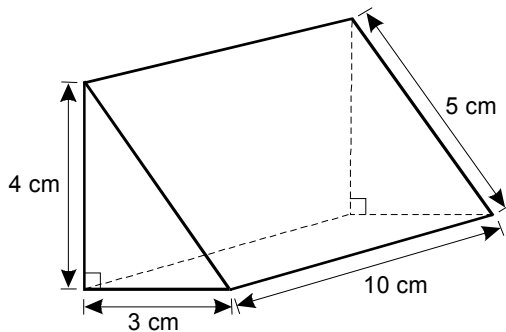
- A.  $r + 2r + 2r = 105$
- B.  $3r = 105$
- C.  $3r + 6r + 12r = 105$
- D.  $r + 2r + 4r = 105$

58. Use the information below to answer the question that follows.

$$\overline{AB} \perp \overline{EF}$$

Which of the following statements accurately interprets the geometric notation shown above?

- A. The length of line  $AB$  is similar to the length of line  $EF$ .
- B. The length of line  $AB$  is parallel to the length of line  $EF$ .
- C. Line segment  $AB$  is congruent to line segment  $EF$ .
- D. Line segment  $AB$  is perpendicular to line segment  $EF$ .
59. Use the diagram below to answer the question that follows.



What is the surface area of the figure above?

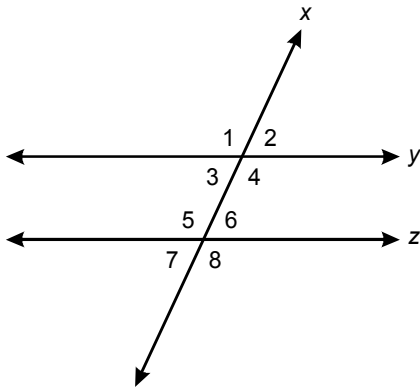
- A.  $120 \text{ cm}^2$
- B.  $126 \text{ cm}^2$
- C.  $132 \text{ cm}^2$
- D.  $144 \text{ cm}^2$

60. A quadrilateral has four equal sides and two pairs of congruent angles. Opposite sides of the quadrilateral are parallel and none of the internal angles equals  $90^\circ$ . Given this description, this quadrilateral must be a:
- A. square.
- B. rhombus.
- C. rectangle.
- D. trapezoid.
61. A polygon has three internal angles that add up to  $180^\circ$ . Exactly two of the polygon's internal angles and two of its sides are congruent. A polygon fitting this description must be:
- A. an isosceles triangle.
- B. a right triangle.
- C. an equilateral triangle.
- D. a scalene triangle.

62. A second-grade teacher plans a math activity using a set of wooden rods of various lengths. The teacher asks students to compare the lengths of 2 cm rods to 10 cm rods by asking them to see how many 2 cm rods placed end-to-end equal the length of the 10 cm rod. This activity would be most appropriate for introducing second graders to the concept of:

- A. fractions.
- B. proportions.
- C. percentages.
- D. natural numbers.

63. Use the diagram below to answer the question that follows.



Which of the following must be true for line  $y$  to be parallel to line  $z$ ?

- A. Line  $x$  must be perpendicular to line  $y$  and line  $z$ .
  - B. Corresponding angles formed by line  $x$ , line  $y$ , and line  $z$  must add up to  $360^\circ$ .
  - C. Angle 3 and angle 5 must be equal.
  - D. Angle 3 and angle 5 must add up to  $180^\circ$ .
64. An assignment asks students to gather data about their classmates. Which of the following is the most appropriate question students could ask of their classmates that would provide data for a demonstration of the statistical concept of the mean?
- A. How many pets does your family have?
  - B. What color eyes do you have?
  - C. Which do you enjoy more, winter or summer?
  - D. What is your favorite kind of animal?

65. Use the diagram below to answer the question that follows.

Figure 1

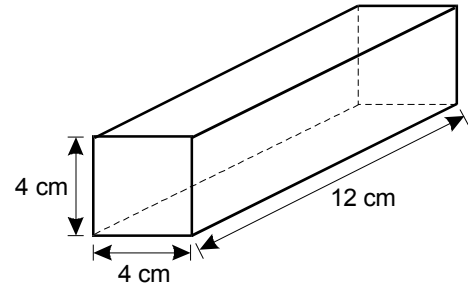
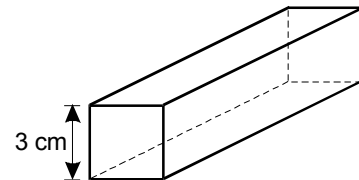


Figure 2



If the shape in Figure 1 is geometrically similar to the shape in Figure 2, which of the following is the volume of the shape in Figure 2?

- A.  $81 \text{ cm}^3$
- B.  $99 \text{ cm}^3$
- C.  $126 \text{ cm}^3$
- D.  $243 \text{ cm}^3$

66. In a first-grade classroom, a teacher displays a ball, a cone, and a box. The teacher asks the class to look at the three objects and describe the ways in which their shapes differ from one another. This activity would be most effective in fostering an understanding of which of the following geometric ideas?
- A. symmetry
  - B. classification
  - C. congruence
  - D. transformation
67. Which of the following best describes the role of Massachusetts in the American Revolution?
- A. A number of the critical events that led to demands for independence took place in Massachusetts.
  - B. Battles fought in Massachusetts determined the military outcome of the Revolution.
  - C. Boston was the main seat of government for American leaders throughout the Revolution.
  - D. Massachusetts's factories produced most of the armaments used by patriot forces in the Revolution.
68. Which of the following sentences accurately describes an important characteristic of a major region of Massachusetts?
- A. The Berkshires receive more rainfall each year than any other part of the state.
  - B. Southeastern Massachusetts is the most heavily forested region of the state.
  - C. The Connecticut River valley has the richest soil in the state.
  - D. Central Massachusetts is the most elevated region of the state.

69. Use the information below to answer the question that follows.

1941: President Roosevelt created the Fair Employment Practices Committee to end job discrimination in defense industries.

1954: In *Brown v. Board of Education of Topeka*, the U.S. Supreme Court outlawed racial segregation in public schools.

1965: The Voting Rights Act gave the federal government the power to enforce the Fifteenth Amendment to the U.S. Constitution.

The events listed above best reflect which of the following democratic principles contained in the Declaration of Independence, the U.S. Constitution, and the Constitution of the Commonwealth of Massachusetts?

- A. due process of law
- B. majority rule
- C. equal protection of the laws
- D. popular sovereignty

70. A local police force is organized into the following groups: street patrol, detective work, domestic cases, and traffic control. This organizational structure is an illustration of the economic concept known as:

- A. economic efficiency.
- B. division of labor.
- C. equality of opportunity.
- D. competition.

71. In the late 1780s, American political leaders replaced the Articles of Confederation with a new form of government based on the U.S. Constitution. A major reason they did so was to:

- A. expand popular participation in national politics.
- B. make state and local government more accountable to the people.
- C. expand the powers of the national government.
- D. increase the autonomy of state and local governments.

72. Which of the following best illustrates the operation of the principle of checks and balances in the U.S. federal government?
- A. The House of Representatives brings impeachment charges against a federal judge.
  - B. The Senate votes to censure a member for disorderly behavior.
  - C. The Supreme Court decides a case involving a dispute between two states.
  - D. The President dismisses the head of the Federal Bureau of Investigation.

73. In the last half of the nineteenth century, U.S. agricultural business in the Midwest began to change from a market system of small family farms to one dominated by large commercialized farms. This change in the character of midwestern farming was primarily related to:
- A. the decreasing population density in the region.
  - B. the escalating rebuilding efforts of the post-Civil War era.
  - C. the growth in exports of agricultural goods overseas.
  - D. the technological innovations in railroad transportation.

74. **Read the information below; then answer the question that follows.**

The region is characterized by a continental steppe climate dominated by windy, cold winters and hot summers punctuated by severe thunderstorms. The landscape is marked with grasses, shrubs, sagebrush, and very few trees. Rivers and mountains from surrounding regions have deposited much of the sediment making up the region's landforms.

The description shown above is indicative of which of the following regions of the United States?

- A. the Pacific Northwest
  - B. the Coastal Plains
  - C. the Rocky Mountains
  - D. the Great Plains
75. One can best understand the influence of ancient Greece on the historical development of Western civilization by examining the:
- A. emergence of feudalism during the Middle Ages.
  - B. origins of the Renaissance.
  - C. rise of absolute monarchies during the seventeenth century.
  - D. causes of the Reformation.

76. Local governments in the United States typically devote a significant proportion of their resources to:

- A. providing mental health services.
- B. enforcing environmental regulations.
- C. supporting elementary and secondary schools.
- D. constructing and maintaining highways.

77. Which of the following provisions of the Massachusetts Constitution best illustrates the principle of due process of law?

- A. the right of the legislature to make laws for the common good
- B. the right of the people of Massachusetts to govern themselves
- C. the right of individuals to hear criminal charges against them
- D. the right of the governor to veto laws enacted by the legislature

78. **Read the information below; then answer the question that follows.**

The coast of Massachusetts winds from the state of Rhode Island around Cape Cod, in and out of harbors along the shore south of Boston, and through Boston harbor. It then extends up the North Shore, swinging around Cape Ann, and on to New Hampshire.

Which of the following social studies concepts has been used to create the description shown above?

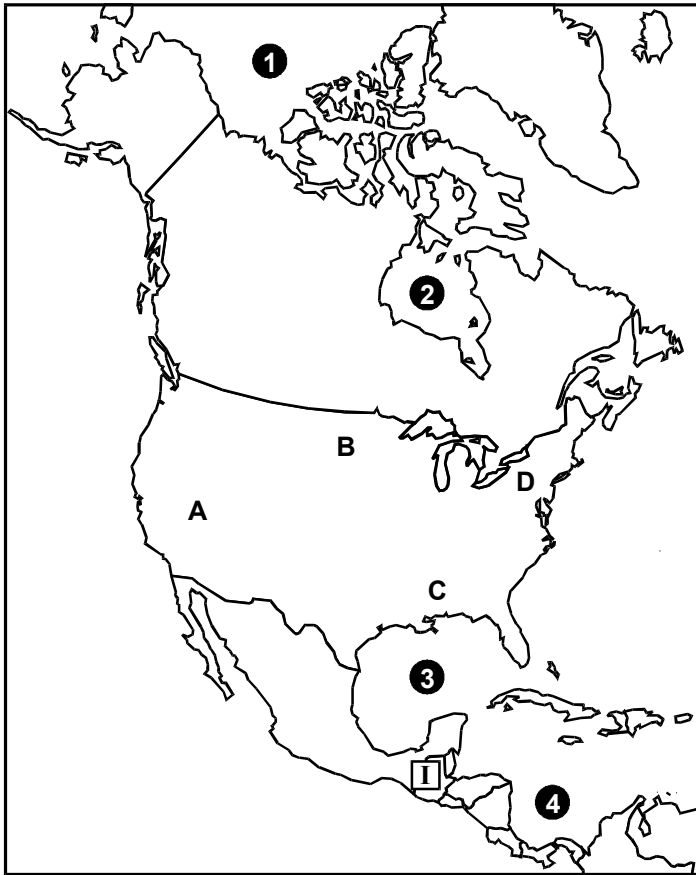
- A. region
- B. absolute location
- C. place
- D. relative location

79. Geographers use the term *ecosystem* to describe:

- A. the interdependent relationships among organisms in a specific environment.
- B. the various forms of animal life found in a specific environment.
- C. the effects of changing climatic conditions on plant and animal life in a specific environment.
- D. the different landforms and varieties of plant life in a specific environment.

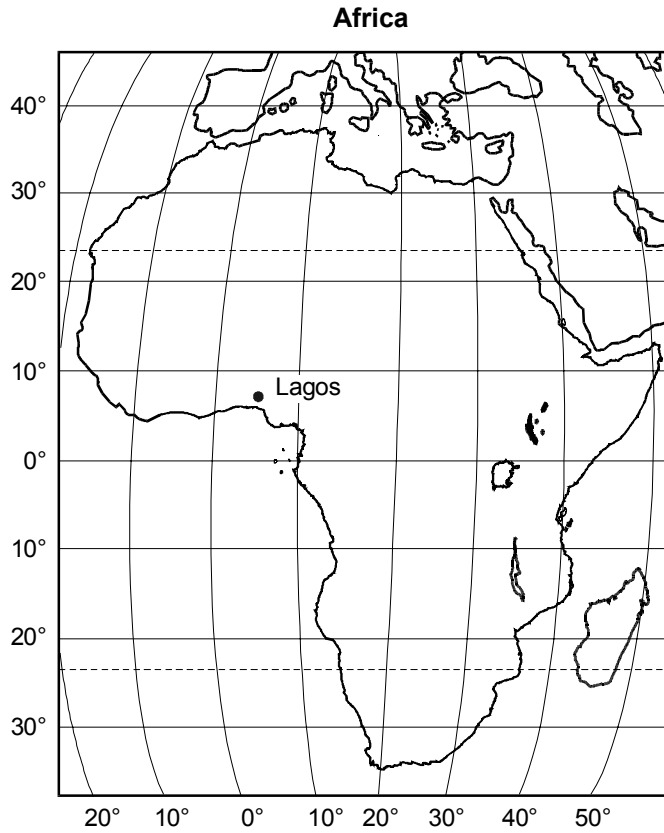


Use the map below to answer the three questions that follow.



80. Which of the following correctly identifies the bodies of water represented by the numbers on the map?
- A. 1. Arctic Ocean  
2. Hudson Bay  
3. Gulf of Mexico  
4. Caribbean Sea
  - B. 1. Bering Sea  
2. Labrador Bay  
3. Gulf of Texas  
4. Mobile Bay
  - C. 1. Arctic Ocean  
2. Labrador Bay  
3. Gulf of California  
4. Atlantic Ocean
  - D. 1. North Sea  
2. Baffin Bay  
3. Sea of Japan  
4. Gulf of Honduras
81. Which of the following correctly describes some of the notable physical characteristics of Region B?
- A. broad, dry highland plains subject to temperature extremes, interspersed with low mountains, rolling flatlands, and grassy hills
  - B. gently rolling, thickly forested hills, with moderate year-round temperatures and frequent precipitation
  - C. low plateaus and steep mountains with moderate temperatures, little rainfall, and few rivers or other sources of fresh water
  - D. rolling plains, deep valleys, and grassy marshes, with moderate winters, hot summers, and intermittent precipitation
82. Roman numeral I is located on a boundary that separates:
- A. North America from South America.
  - B. the Northern Hemisphere from the Southern Hemisphere.
  - C. North America from Central America.
  - D. Central America from the West Indies.

83. Use the map of Africa below to answer the question that follows.



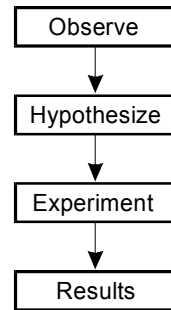
Which of the following best describes the location of the city of Lagos on the map?

- A. latitude 7° S, longitude 5° W
- B. latitude 7° N, longitude 5° E
- C. longitude 7° N, latitude 5° E
- D. longitude 7° S, latitude 5° W

84. For a new scientific theory to become generally accepted in the scientific community, the theory must be:
- A. representable using a physical model.
  - B. based on verifiable evidence.
  - C. subject to mathematical proof.
  - D. able to explain a wide variety of natural phenomena.

85. Mathematical analysis is often an important part of interpreting scientific results primarily because it can:
- A. remove the risk that a researcher will be biased toward a particular result.
  - B. improve the validity of the collected data.
  - C. decrease the need for outside review of the research by scientific researchers.
  - D. reveal important relationships or trends in the collected data.

86. Use the diagram below to answer the question that follows.

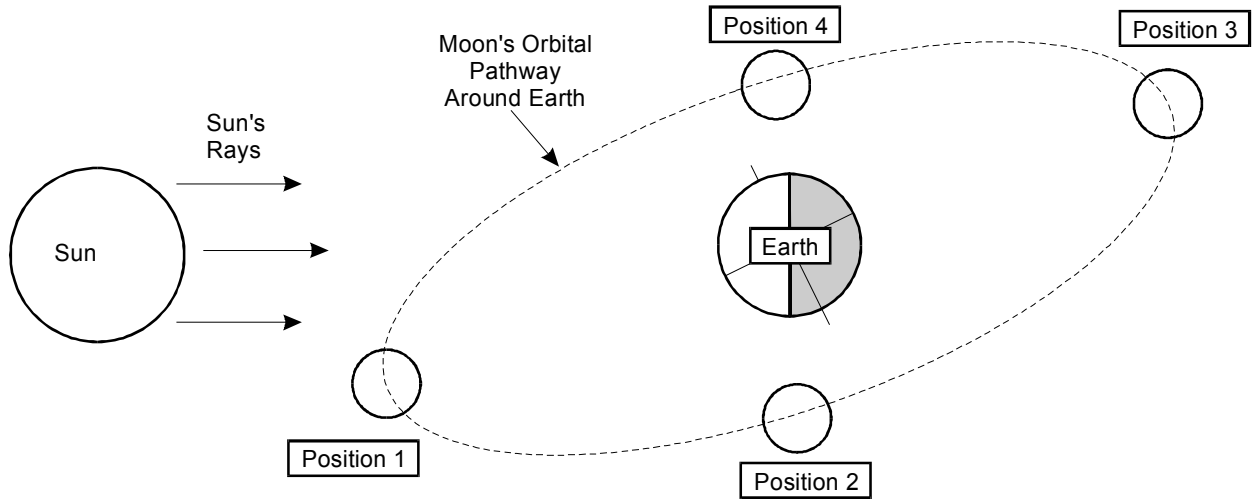


During a scientific investigation, which of the following is the primary goal of the "Experiment" step shown in the diagram above?

- A. to gather data related to the hypothesis
- B. to assess whether the results will be useful in confirming the hypothesis
- C. to generate new hypotheses that will help explain observations
- D. to organize data to conform with the hypothesis

87. During the early sixteenth century, the astronomer Nicolaus Copernicus published a scientific hypothesis on a topic that had been studied and debated for centuries. Which of the following best describes the central theme of the hypothesis put forward by Copernicus?
- A. The pathway of the moon as it orbits the earth is elliptical.
  - B. The solar system is one of many planetary systems in the universe.
  - C. The planets of the solar system orbit the sun.
  - D. The blocking of sunlight by the moon causes solar eclipses.
88. Charles Darwin proposed that a process he called natural selection helped explain the diversity of species on the earth. Which of the following best describes the process of natural selection?
- A. A population of organisms in a particular habitat adjusts to changes in the environment.
  - B. The physical and behavioral adaptations that an organism makes over the course of a lifetime are passed on to offspring.
  - C. Organisms that are best adapted to their environment survive and produce more successful offspring.
  - D. Random physical changes that occur in a population of organisms are the result of mutations in the genetic material.
89. In 1831, Michael Faraday discovered that moving a magnet back and forth near a wire could produce a current in the wire. His discovery demonstrated that mechanical energy could be converted to another form of energy. This discovery is most directly related to the development of which of the following technologies?
- A. compass
  - B. internal combustion engine
  - C. nuclear fission reactor
  - D. electric generator
90. Which of the following provides the best example of how technology supports the development of new scientific knowledge?
- A. An engineer finds flaws in a computer chip using a microscope.
  - B. A biologist identifies the cause of a disease using genetic engineering.
  - C. A geologist uses aerial photographs to map the extent of a landslide.
  - D. A doctor uses a laser to conduct eye surgery.

91. Use the diagram below to answer the question that follows.



Which of the following positions shown in the diagram above represents the position of the moon in relation to the earth and sun when the moon appears full?

- A. Position 1
  - B. Position 2
  - C. Position 3
  - D. Position 4
92. Cellular respiration is most directly associated with which of the following life processes?
- A. the release of energy from the breakdown of food
  - B. the transfer of genetic information during cell division
  - C. the growth of new tissue as the body responds to injury
  - D. the regulation of feedback mechanisms of the nervous system

93. Which of the following is the primary function of chlorophyll in green plants?
- A. protection from insect pests
  - B. regulation of nutrient uptake
  - C. absorption of solar energy
  - D. control of growth
94. In 1987 many industrialized nations agreed to limit the production and sale of certain chemicals known to damage the ozone layer in the earth's upper atmosphere. This international agreement was based on scientific evidence that showed that the ozone layer plays an important role in:
- A. protecting living organisms from harmful ultraviolet radiation.
  - B. reducing the toxicity of chemicals emitted from smokestacks.
  - C. promoting the formation of precipitation.
  - D. allowing built-up heat in the atmosphere to escape into space.
95. Which of the following sets of factors is most directly responsible for causing ocean tides?
- A. the shape, depth, and topography of the seafloor near coastlines
  - B. the rotation of the earth on its axis and its orbital motion
  - C. the atmospheric and ocean currents in coastal regions
  - D. the gravitational interactions of the earth, sun, and moon
96. Reducing the acidity of lakes in New England depends primarily on technology that:
- A. limits emissions from coal-fired power plants.
  - B. controls the erosion of soil surrounding the lakes.
  - C. removes road salt from aquifers near highways.
  - D. minimizes pollution due to agricultural production.

97. During the process of photosynthesis, plants make sugars primarily from which of the following substances?
- A. oxygen and minerals
  - B. water and carbon dioxide
  - C. carbohydrates and oxygen
  - D. enzymes and water
98. A teacher plans an experiment to help students understand how scientific inquiry differs from other ways of learning about the world. The experiment involves determining which of three types of soils can hold the most water before becoming saturated. To help the students recognize the characteristics of scientific inquiry that distinguish it from other ways of learning, it is most important that the students:
- A. describe exactly what they do during each of the soil tests.
  - B. be encouraged to guess what the outcome will be before conducting the experiment.
  - C. use the same procedures to conduct each of the soil tests.
  - D. are first told what kinds of results to expect when the experiment is done properly.

**Read the passage below; then answer the two questions that follow.**

A second-grade teacher has decided to have students monitor the weather throughout the school year as part of their study of the environment around their school.

99. The teacher wants to ensure that the activity promotes the use of appropriate scientific practices. In order to achieve this goal, it is important that the teacher encourage students to:
- A. record data from many different locations.
  - B. collect data in a systematic manner at a regular time each day.
  - C. use the data to demonstrate the importance of math in science.
  - D. understand the technology used to collect and record the data.
100. Which of the following weather measurements is most helpful in making predictions about weather changes in the next 24 to 48 hours?
- A. atmospheric pressure
  - B. wind speed
  - C. temperature
  - D. rainfall amount



## DIRECTIONS FOR THE OPEN-RESPONSE ITEM ASSIGNMENTS

This section of the test consists of two open-response item assignments that appear on the following pages. You will be asked to prepare a written response of approximately 150–300 words (1–2 pages) for each assignment. You should use your time to plan, write, review, and edit your response for each assignment.

For each assignment, read the topic and directions carefully before you begin to work. Think about how you will organize your response. You may use any blank space in this test booklet to make notes, write an outline, or otherwise prepare your response.

As a whole, your response to each assignment must demonstrate an understanding of the knowledge of the field. In your response to each assignment, you are expected to demonstrate the depth of your understanding of the subject area by applying your knowledge rather than by merely reciting factual information.

Your response to each assignment will be evaluated based on the following criteria.

- **PURPOSE:** the extent to which the response achieves the purpose of the assignment
- **SUBJECT KNOWLEDGE:** appropriateness and accuracy in the application of subject knowledge
- **SUPPORT:** quality and relevance of supporting evidence
- **RATIONALE:** soundness of argument and degree of understanding of the subject area

The open-response item assignments are intended to assess subject knowledge. Your responses must be communicated clearly enough to permit valid judgment of the evaluation criteria by scorers. Your responses should be written for an audience of educators in this field. The final version of each response should conform to the conventions of edited American English. Your responses should be your original work, written in your own words, and not copied or paraphrased from some other work.

Be sure to write about the assigned topics. Please write legibly. You may not use any reference materials during the test. Remember to review your work and make any changes you think will improve your responses.

**OPEN-RESPONSE ITEM ASSIGNMENT #1**

**Use the information below to complete the exercise that follows.**

An important learning standard for kindergarten students is to identify objects and materials as being either solids, liquids, or gases.

Using your knowledge of physical science and child development, prepare a response in which you:

- describe a physical property of liquids that distinguishes them from solids;
- summarize a learning experience that would help kindergarten students distinguish liquids and solids;  
and
- explain why this experience fosters learning and development for kindergarten students.



**OPEN-RESPONSE SHEET—ASSIGNMENT #1**

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**OPEN-RESPONSE ITEM ASSIGNMENT #2**

**Use the information below to complete the exercise that follows.**

An important learning standard for prekindergarten children is to sort and classify objects by properties such as color, size, and shape.

Using your knowledge of classification and child development, prepare a response in which you:

- describe how sorting and classifying objects is related to a fundamental concept in mathematics;
- summarize a learning experience that would help prekindergarten children learn to sort and classify objects based on their properties and characteristics; and
- explain why this experience fosters learning and development for prekindergarten children.





**PRACTICE TEST RESULTS**



## PRACTICE TEST RESULTS OVERVIEW

The practice test provides valuable information regarding your preparedness for the MTEL Early Childhood (02) test. In this section, you will find information and tools to help you determine your preparedness on the various sections of the test.

### Multiple-Choice Questions

An Answer Key Worksheet is provided to assist you in evaluating your multiple-choice responses. The worksheet contains five columns. The first column indicates the multiple-choice question number, the second column indicates the objective to which the item was written, and the third column indicates the correct response. The fourth and fifth columns are for your use in calculating the number of multiple-choice questions you answered correctly or incorrectly.

An Evaluation Chart for the multiple-choice questions is also provided to help you assess which content covered by the test objectives may require additional study.

### Open-Response Items

Evaluation Information, Sample Responses and Analyses, as well as a Scoring Rubric are provided for these items. You may wish to refer to this information when evaluating your practice test responses.

### Total Test

Practice Test Score Calculation information is provided to help you estimate your score on the practice test. Although you cannot use this practice test to precisely predict how you might score on an official MTEL Early Childhood (02) test, you may be able to determine your degree of readiness to take an MTEL test at an operational administration. No passing score has been determined for the practice test.

**MULTIPLE-CHOICE QUESTION  
ANSWER KEY WORKSHEET**

Question Number	Objective Number	Correct Response	Your Response	
			Correct?	Incorrect?
1	0001	A		
2	0001	D		
3	0001	C		
4	0001	C		
5	0001	C		
6	0001	B		
7	0001	B		
8	0001	B		
9	0001	A		
10	0001	A		
11	0001	A		
12	0001	D		
13	0001	C		
14	0001	B		
15	0001	C		
16	0001	D		
17	0002	C		
18	0002	A		
19	0002	D		
20	0002	A		
21	0002	D		
22	0002	B		
23	0002	C		
24	0002	B		
25	0002	D		
26	0002	C		
27	0002	D		
28	0002	C		
29	0002	A		
30	0002	B		
31	0002	D		
32	0003	D		
33	0003	D		
34	0003	B		

**MULTIPLE-CHOICE QUESTION  
ANSWER KEY WORKSHEET (continued)**

Question Number	Objective Number	Correct Response	Your Response	
			Correct?	Incorrect?
35	0003	C		
36	0003	C		
37	0003	A		
38	0003	D		
39	0003	A		
40	0003	D		
41	0003	B		
42	0004	D		
43	0004	A		
44	0004	A		
45	0004	C		
46	0004	C		
47	0004	B		
48	0004	B		
49	0004	D		
50	0004	C		
51	0005	C		
52	0005	C		
53	0005	D		
54	0005	B		
55	0005	C		
56	0005	B		
57	0005	D		
58	0005	D		
59	0005	C		
60	0005	B		
61	0005	A		
62	0005	A		
63	0005	D		
64	0005	A		
65	0005	A		
66	0005	B		
67	0006	A		
68	0006	C		

**MULTIPLE-CHOICE QUESTION  
ANSWER KEY WORKSHEET (continued)**

Question Number	Objective Number	Correct Response	Your Response	
			Correct?	Incorrect?
69	0006	C		
70	0006	B		
71	0006	C		
72	0006	A		
73	0006	D		
74	0006	D		
75	0006	B		
76	0006	C		
77	0006	C		
78	0006	D		
79	0006	A		
80	0006	A		
81	0006	A		
82	0006	C		
83	0006	B		
84	0007	B		
85	0007	D		
86	0007	A		
87	0007	C		
88	0007	C		
89	0007	D		
90	0007	B		
91	0007	C		
92	0007	A		
93	0007	C		
94	0007	A		
95	0007	D		
96	0007	A		
97	0007	B		
98	0007	C		
99	0007	B		
100	0007	A		

**Count the number of multiple-choice questions you answered correctly:**  
 \_\_\_\_\_ of 100 multiple-choice questions

**MULTIPLE-CHOICE QUESTION  
PRACTICE TEST EVALUATION CHART**

In the evaluation chart that follows, the multiple-choice questions are arranged in numerical order and by test objective. Check your responses against the correct responses provided to determine how many questions within each objective you answered correctly.

**Subarea I: Knowledge of Child Development**

**Objective 0001: Understand child development from prenatal through the early elementary years.**

1A \_\_\_ 2D \_\_\_ 3C \_\_\_ 4C \_\_\_ 5C \_\_\_ 6B \_\_\_ 7B \_\_\_ 8B \_\_\_  
 9A \_\_\_ 10A \_\_\_ 11A \_\_\_ 12D \_\_\_ 13C \_\_\_ 14B \_\_\_ 15C \_\_\_  
 16D \_\_\_ \_\_\_\_\_/16

**Objective 0002: Understand child development and learning in students with  
disabling conditions or exceptionalities.**

17C \_\_\_ 18A \_\_\_ 19D \_\_\_ 20A \_\_\_ 21D \_\_\_ 22B \_\_\_ 23C \_\_\_  
 24B \_\_\_ 25D \_\_\_ 26C \_\_\_ 27D \_\_\_ 28C \_\_\_ 29A \_\_\_ 30B \_\_\_  
 31D \_\_\_ \_\_\_\_\_/15

Subarea I (Objectives 0001–0002) Total \_\_\_/31

**Subarea II: Knowledge of Children's Literature and the Writing Process**

**Objective 0003: Understand children's literature, including genres,  
literary elements, and literary techniques.**

32D \_\_\_ 33D \_\_\_ 34B \_\_\_ 35C \_\_\_ 36C \_\_\_ 37A \_\_\_ 38D \_\_\_  
 39A \_\_\_ 40D \_\_\_ 41B \_\_\_ \_\_\_\_\_/10

**Objective 0004: Understand principles and concepts of writing for various purposes.**

42D \_\_\_ 43A \_\_\_ 44A \_\_\_ 45C \_\_\_ 46C \_\_\_ 47B \_\_\_ 48B \_\_\_  
 49D \_\_\_ 50C \_\_\_ \_\_\_\_\_/9

Subarea II (Objectives 0003–0004) Total \_\_\_/19

**MULTIPLE-CHOICE QUESTION  
PRACTICE TEST EVALUATION CHART (continued)**

**Subarea III: Core Knowledge in the Content Areas**

<b>Objective 0005: Understand principles and concepts of mathematics.</b>						
51C	52C	53D	54B	55C	56B	57D
58D	59C	60B	61A	62A	63D	64A
65A	66B					
						_____/16

<b>Objective 0006: Understand principles and concepts of history and social science.</b>						
67A	68C	69C	70B	71C	72A	73D
74D	75B	76C	77C	78D	79A	80A
81A	82C	83B				
						_____/17

<b>Objective 0007: Understand principles and concepts of science and technology/engineering.</b>						
84B	85D	86A	87C	88C	89D	90B
91C	92A	93C	94A	95D	96A	97B
98C	99B	100A				
						_____/17

**Subarea III (Objectives 0005–0007) Total \_\_\_\_/50**

## OPEN-RESPONSE ITEM EVALUATION INFORMATION

### How Open-Response Items Are Scored

Open-response items are scored through a process called focused holistic scoring. Scorers judge the overall effectiveness of the response rather than individual aspects considered in isolation. Scorer judgments are based on the quality of the response, not on length or neatness. Responses must be long enough to cover the topic adequately and scorers must be able to read what is written.

### How to Evaluate Your Practice Responses

On the following pages, you will find two "strong" and two "weak" sample responses. PLEASE DO NOT REVIEW THE SAMPLE RESPONSES UNTIL AFTER YOU HAVE WRITTEN YOUR OWN RESPONSE. When you do review the two "strong" and "weak" sample responses and analyses included here, please note the following points:

- ✓ For the purposes of the practice test, responses are identified as "strong" or "weak" rather than given a score point of 1–4.
- ✓ The responses identified as "strong" may contain flaws; however, these responses do demonstrate the performance characteristics of a "strong response."
- ✓ The two "strong" responses demonstrate the examinees' appropriate understanding and application of the subject matter knowledge. However, these responses do not necessarily reflect the full range of "correct answers" that would demonstrate an understanding of the subject matter.
- ✓ The "Analysis" accompanying each "strong" and "weak" response discusses the main attributes of the responses, but does not identify all flaws or strengths that may be present.

Compare your practice responses to the [Sample Responses](#) to determine whether your responses are more similar to the strong or weak responses. Also review the [Analyses](#) on those pages and the [Scoring Rubric](#) to help you better understand the characteristics of strong and weak responses. This evaluation will help you identify specific problems or weaknesses in your practice responses. Further information on scoring can be found in the [Test Information Booklet](#) and [Faculty Guide](#) at [www.mtel.nesinc.com](http://www.mtel.nesinc.com) and at [www.doe.mass.edu/mtel](http://www.doe.mass.edu/mtel); select "FAQ," then "After the Test."

**OPEN-RESPONSE ITEM  
SCORING RUBRIC, SAMPLE RESPONSES, AND ANALYSES**



**Massachusetts Tests for Educator Licensure®  
SCORING RUBRIC FOR SUBJECT TESTS**

**Performance Characteristics:**

Purpose	The extent to which the response achieves the purpose of the assignment.
Subject Matter Knowledge	Accuracy and appropriateness in the application of subject matter knowledge.
Support	Quality and relevance of supporting details.
Rationale	Soundness of argument and degree of understanding of the subject matter.

**Scoring Scale:**

<b>Score Point</b>	<b>Score Point Description</b>
<b>4</b>	<p><b>The "4" response reflects a thorough knowledge and understanding of the subject matter.</b></p> <ul style="list-style-type: none"> <li>• The purpose of the assignment is fully achieved.</li> <li>• There is a substantial, accurate, and appropriate application of subject matter knowledge.</li> <li>• The supporting evidence is sound; there are high-quality, relevant examples.</li> <li>• The response reflects an ably reasoned, comprehensive understanding of the topic.</li> </ul>
<b>3</b>	<p><b>The "3" response reflects an adequate knowledge and understanding of the subject matter.</b></p> <ul style="list-style-type: none"> <li>• The purpose of the assignment is largely achieved.</li> <li>• There is a generally accurate and appropriate application of subject matter knowledge.</li> <li>• The supporting evidence is adequate; there are some acceptable, relevant examples.</li> <li>• The response reflects an adequately reasoned understanding of the topic.</li> </ul>
<b>2</b>	<p><b>The "2" response reflects a limited knowledge and understanding of the subject matter.</b></p> <ul style="list-style-type: none"> <li>• The purpose of the assignment is partially achieved.</li> <li>• There is a limited, possibly inaccurate or inappropriate, application of subject matter knowledge.</li> <li>• The supporting evidence is limited; there are few relevant examples.</li> <li>• The response reflects a limited, poorly reasoned understanding of the topic.</li> </ul>
<b>1</b>	<p><b>The "1" response reflects a weak knowledge and understanding of the subject matter.</b></p> <ul style="list-style-type: none"> <li>• The purpose of the assignment is not achieved.</li> <li>• There is little or no appropriate or accurate application of subject matter knowledge.</li> <li>• The supporting evidence, if present, is weak; there are few or no relevant examples.</li> <li>• The response reflects little or no reasoning about or understanding of the topic.</li> </ul>
<b>U</b>	<b>The response is unrelated to the assigned topic, illegible, primarily in a language other than English, not of sufficient length to score, or merely a repetition of the assignment.</b>
<b>B</b>	<b>There is no response to the assignment.</b>

**FIRST SAMPLE WEAK RESPONSE FOR OPEN-RESPONSE  
ITEM ASSIGNMENT #1**

Liquids are something the children are familiar with, because they drink juices, take baths, and swim in pools. They may not know that some liquids can also be solids, like water. When it is solid, water is ice. Children may not know that the ice they skate on in the winter and the cubes they put in a glass of soda in the summer are really water when it's solid.

To help children learn about solids and liquids, I would use snack time to show them the difference between pouring a cup of juice and what happens when the juice turns into solid ice. They could each take a turn pouring juice from a pitcher into their own cup as we talk about liquids and how they flow. Then I would bring out frozen juice pops, and have them talk about the difference between the frozen solid juice pops and the liquid juice they can drink. While children talk about other liquids and solids they know, I would write them on a big chart to post in the room.

This activity is good for children because it gives them some hands-on experience with both a solid and a liquid while we are talking about it. This is also a visual activity, which is good for visual learners. It gives everyone something concrete to work with, which is very important to their learning.

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## ANALYSIS FOR FIRST WEAK RESPONSE TO OPEN-RESPONSE ITEM ASSIGNMENT #1

*This is an example of a weak response because it is characterized by the following:*

**Purpose:** This response only partially addresses the assignment. The physical properties that distinguish liquids from solids are only indirectly addressed in the first paragraph (e.g., liquids "are something the children are familiar with" and "the ice they skate on" is "really water when it's solid"). The learning experience lacks important details that would indicate whether or not the candidate understands the range of materials and experiences that kindergarteners would need to help them understand the physical properties that distinguish liquids from solids. The response is weakened by not including a specific reference to kindergarteners.

**Subject Matter Knowledge:** The candidate provides correct examples of the liquid and solid forms of water, however, using examples of materials that change from liquid to solid will not help kindergarteners formulate a generalized understanding of the physical properties of these states of matter that would be true of any liquid or any solid. To have children pour juice and "talk about the difference" between the frozen and solid juice is appropriate when talking about how liquids and solids change form, however, the candidate needs to elaborate on this starting point in order to demonstrate a depth of understanding of the subject matter. The learning activity described and the explanation of how it fosters development are so general in their content and purpose that they might be applied to several different grades for several different curriculum objectives.

**Support:** The learning experience is limited to that one material (juice) on one occasion (snack time), after which the children are expected to generalize the concepts to create a chart of liquids and solids. The activity could have been made stronger by using several snack items and different steps in the snack process for a special lesson that would allow for a variety of observations about liquids and solids (e.g., washing up with liquid and solid hand soap, making waffles with syrup and apple slices, clearing the table with liquid waste in one pan and solid in another).

**Rationale:** This response is weakened by assumptions about children's learning that are questionable. For example, assuming that children already understand liquids and "may not know" solids is less effective a starting point than finding out what they do know. The activity relies more on showing and talking about liquids and solids than on more meaningful discovery-based activities. The rationale for the activity is weak. Phrases such as "some hands-on experience," "a visual activity," and "something concrete" require explanation and relevant details to communicate the candidate's reasoning about how this specific activity fosters learning and development. The ideas are so broadly related to the concept of liquids and solids that they do not build an argument for why this approach to learning is appropriate for these concepts at this grade level.

**SECOND SAMPLE WEAK RESPONSE FOR OPEN-RESPONSE  
ITEM ASSIGNMENT #1**

One physical property of solids that distinguishes itself is that solids cannot move freely. Liquids can move back and forth when placed in a container. Water is able to be liquid as well as solid when frozen. It is a great example to show children the difference from solid and liquid.

A learning experience to help children distinguish between liquids and solids would be to show the children an ice cube and explain that this is a solid and tell them the properties of a solid.

Then they would let the ice cube sit out and melt so it turns to water and the teacher would explain the properties of liquids. After this the teacher could put out a bowl of ice cubes and have the children draw pictures of it during the day as it melts. Also put an ice cube tray filled with water in the freezer and have the children draw pictures of that during the day as it freezes. The teacher can then explain the visible and physical differences as they draw.

This experience fosters learning and development because it is entertaining and hands on. It can extend to curriculum taught in the different seasons, especially in the winter seasons.

Children are more capable of fostering the knowledge when it's a hands on experience and this enables them to see and feel the change. It also gives the children an activity they can look back on and remember when learning about physical science and solids, liquids and gases later in elementary school.

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## ANALYSIS FOR SECOND WEAK RESPONSE TO OPEN-RESPONSE ITEM ASSIGNMENT #1

*This is an example of a weak response because it is characterized by the following:*

**Purpose:** This response articulates very little about the physical properties of liquids and solids. The proposed activity doesn't address how to develop a sense of the properties of liquids and solids in such a way that children can relate those terms to a variety of substances in their physical world.

**Subject Matter Knowledge:** The idea that liquids "move back and forth" while solids "cannot move freely" is too vague to convey the candidate's exact meaning. The statement, "water is able to be liquid as well as solid," is about water, rather than the physical properties of liquids and solids. A strong explanation of this concept is one that can be generalized to many substances the children encounter. The activity is inappropriate in several regards, especially the focus on the teacher's own explanations of ice and water, rather than on a guided discussion among the children, as well as the unmanageable logistics of having a whole class of kindergarten children draw pictures of ice transforming to water and water being frozen in a freezer over an unspecified period of time. It's unclear what the candidate knows about learning and development, as the final paragraph is a series of unrelated statements that lack explanation.

**Support:** The idea that solids can't move and liquids can isn't wrong, but without further development that idea is only partially right. (Solids do move freely in response to gravity or when floating, for example.) The candidate needs to convey specifically what *movement* means in relation to the properties of liquids and solids. The learning experience is limited by the focus on a single substance as an example—water in its liquid and frozen states—without any development of the context within which that example has meaning. The process could have been strengthened by including extension activities that get children actively involved in observing, predicting, discussing, and exploring how liquids and solids behave, and that help them to generalize the example of ice and water into additional discoveries about liquids and solids.

**Rationale:** The response lacks sufficient development to convey the candidate's ideas clearly. Thus, the statement that "they would let the ice cube sit out" before the teacher explains liquids, creates a senseless gap between the teacher's discussion of the ice cube and the resulting water. The phrase, "it is entertaining and hands on," is an inaccurate description of this activity. If the candidate sees how this activity "can extend to curriculum taught in the different seasons, especially in the winter seasons," details about that curriculum need to be included, rather than left to inference. Giving "the children an activity they can look back on and remember," is a weak rationale for the activity. Responses should focus on why a certain activity is a good match for the learning and development of kindergarten children.

**FIRST SAMPLE STRONG RESPONSE FOR OPEN-RESPONSE  
ITEM ASSIGNMENT #1**

A liquid takes on the shape of the container it is in. A solid, on the other hand, retains its own shape no matter what the container is shaped like. For example, if you put a small block of wood inside a glass or a plastic bag it will keep the shape of a small block of wood in either container. However, if you pour water from a glass to a plastic bag, the water changes its shape from that of the glass with its rigid sides and bottom to that of the bag with its flexible sides and bottom.

As part of a Kindergarten unit on this topic, I would divide a table in the discovery area into two sides, with room for at least 2 children per side. One side of the table would have a bin of acorns. The other side of the table would have a bin of water. Both sides would share a collection of sieves, cups with pouring spouts, colanders, slotted spoons, funnels, and squirt bottles, as well as a collection of containers with different shapes (for example, tin can, plastic tube, plastic bag, cup, plate). The children would experiment with pouring, lifting, and sifting the acorns or the water with the tools provided. As the children observe how these materials behave, the teacher could ask questions such as, "Why do you think the acorns aren't going through the sieve?" and "What do you think will happen to the water when you pour it onto the plate?"

This experience helps kindergarteners to construct ideas about two of the three principal states of matter, which is a key to understanding their physical world. At this age, children need activities that surprise or puzzle them, because that quality encourages them to refine their exploration of the materials and extend their thinking in new directions. In trying to resolve the differences between what they predicted would happen and how each substance actually behaves, children are developing a foundation for logical reasoning. The teacher's active participation helps the children to build concepts related to liquids and solids as well as the vocabulary needed to articulate their ideas.

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## ANALYSIS FOR FIRST STRONG RESPONSE TO OPEN-RESPONSE ITEM ASSIGNMENT #1

*This is an example of a strong response because it is characterized by the following:*

**Purpose:** All aspects of the assignment are fully addressed. The first paragraph of this response describes key properties that distinguish liquids from solids. The second paragraph provides a thorough description of a related learning experience for kindergarteners. The third paragraph explains how this specific science activity fosters learning and development for this age group. The focus on kindergarteners is maintained throughout the response.

**Subject Matter Knowledge:** The candidate provides accurate examples of liquids and solids (water and wood) and how they behave in different containers (a glass vs. a plastic bag). The learning experience is an appropriate application of this content to kindergarten because it allows exploration, observation, and discussion of concrete objects, during which the children construct their own ideas about liquids and solids. The last paragraph relates key features of scientific inquiry to what these young children are doing, such as making predictions and "trying to resolve the differences."

**Support:** The response provides several specific examples to support each point. In the first paragraph, the candidate provides the illustration of wood and water and describes water's transformation of shape from a glass container to a plastic bag. The learning experience describes the setting (the discovery area, a divided table), gives an extensive list of the materials to be used (acorns, sieves, water, cans, etc.), describes how they would be used ("the children would experiment with pouring, lifting, and sifting"), and extends the learning into another format (focused questions from the teacher).

**Rationale:** The response has an articulate explanation of key differences in the properties of liquids and solids, and shows integration of that understanding with knowledge of a specific kindergarten teaching-learning situation. The candidate has applied to the process of selecting appropriate materials for exploring liquids and solids the theoretical notion that kindergarteners "construct ideas," which helps them to "understand their physical world." The learning experience is a lucid illustration of the developmental principal explained in the last paragraph: "At this age, children need activities that surprise or puzzle them, because that quality encourages them to refine their exploration of the materials and extend their thinking in new directions." The explicit relationship between the learning experience and this specific understanding of child development strengthens the response.

**SECOND SAMPLE STRONG RESPONSE FOR OPEN-RESPONSE  
ITEM ASSIGNMENT #1**

The molecules that make up a liquid are much more spread out than the molecules that make up a solid. They're so densely packed there's not much room between each molecule, so it usually takes force to break down the object. In art class, for example, I have to use a hammer to smash the clay pots that didn't come out right, but when I'm working with clay that's too soupy the pot won't even stand up when I try to shape it. It's because the molecules in liquids have a lot of space between them. They are so loosely organized that something liquid will change shape if you push it, drop it or pour it from one container to another.

To teach liquids and solids in a kindergarten class, I would set up four stations for small groups around the room. One station could have a pitcher of colored water and different sized glasses, cups, and plastic containers (fat, skinny, tall, flat). Another station could have different sized containers along with some solids like ping-pong balls, sponge cubes, and paper napkins. The other stations, one with solids one with liquids, might have sieves and nets. At each station, small groups of children would play with pouring the liquids or solids from one container to another and discuss the behavior of the materials while the teacher observes and asks questions like, "What's going to happen to the (water, balls, etc.) when you put it into this container?" After the children have had a chance to rotate among all the stations, the teacher could do a group meeting to make a class chart of their learning about liquids and solids.

Activities like this promote development through interaction. Most importantly, this gives the children a chance to hear ideas other kids have, and that helps them to add to or correct their own ideas and learn more than they could learn on their own. The teacher talks with children, too, about their predictions and discoveries, which adds to their thinking and builds the vocabulary that will help them to understand and explain their physical world.



## ANALYSIS FOR SECOND STRONG RESPONSE TO OPEN-RESPONSE ITEM ASSIGNMENT #1

*This is an example of a strong response because it is characterized by the following:*

**Purpose:** The candidate has responded fully to each of the bullets in this assignment, addressing the physical properties of matter, the process of teaching that content at the kindergarten level, and the underlying learning process.

**Subject Matter Knowledge:** Each paragraph of this response demonstrates sound knowledge of the subject matter. The first paragraph fully explains density of molecules as the physical property that distinguishes liquids from solids. The use of a personal example (clay pots) works because the candidate uses it to illustrate the more scientific explanation of the properties of liquids and solids. The learning activity is appropriate for kindergarteners on several levels, such as the number and variety of concrete materials, the children's active participation, and the teacher's clarification and extension of their thinking and learning. The last paragraph is a substantial discussion of the importance of "interaction" in learning.

**Support:** The candidate applies one specific idea about the properties of matter to both liquids and solids (density of molecules) and develops that idea clearly. The second paragraph conveys a lot of information about the learning experience: small group stations, materials to use, the idea of having some stations with porous and some with nonporous containers, and the role of the teacher in this setting. The last paragraph focuses on just one related aspect of learning and development: interaction. However, this idea is developed through a number of specific phrases, such as "a chance to hear ideas other kids have," "add to or correct their own ideas," and "builds the vocabulary."

**Rationale:** Each aspect of the assignment is carefully reasoned from a clear starting point to a conclusion. The premise that solids have densely packed molecules is followed logically by the notion of "loosely organized" molecules in liquids. The learning activity starts with the broad idea of setting up the room into learning stations, continues with specifying contrasting materials for liquids and solids, and then explains exactly what the children would do and what role the teacher would play in this setting. The final paragraph gives several important reasons for including "interaction" in the design of a kindergarten learning experience. Thoroughly explaining a general concept, such as the importance of interaction, and linking it specifically to the learning experience chosen, strengthens a response more than simply listing a variety of concepts that are not fully explained or not directly and specifically related to the activity chosen.

## FIRST SAMPLE WEAK RESPONSE FOR OPEN-RESPONSE ITEM ASSIGNMENT #2

Sorting and classifying objects is something kids love to do. It engages them and takes advantage of their natural curiosity. Manipulating concrete objects is very important in early childhood because it shows them that they can group things differently, such as by size, shape, or color. They are doing it instead of just hearing about it. It gives them something visual to focus on when the teacher wants to introduce concepts like circle and square.

One activity would be to put the building blocks away on the shelves. The blocks come in different sizes and shapes, so this activity is appropriate for prekindergarteners. They would have to notice the sizes and shapes in order to put them away correctly. This is hands-on learning that kids can do as part of their daily clean-up activities. The teacher would have a chart of classroom clean-up jobs, and each week the kids would rotate, so everyone would get a chance to do it.

## ANALYSIS FOR FIRST WEAK RESPONSE TO OPEN-RESPONSE ITEM ASSIGNMENT #2

*This is an example of a weak response because it is characterized by the following:*

**Purpose:** The candidate has given a partial response to the assignment. While the response refers to sorting (e.g., "shows them that they can group things differently, such as by size, shape, or color"), there is no reference to child development, mathematics, or knowledge of classification. In the second paragraph, the candidate does not provide sufficient information to indicate how the routine of cleaning up the block area can help prekindergarteners develop concepts relevant to sorting and classifying.

**Subject Matter Knowledge:** The response reflects limited understanding of the subject matter. Phrases like "it engages them" and "they are doing it instead of just hearing about it" are vague, and require specific examples to make clear the meaning those terms have in early childhood. Applying the concept of sorting and classifying to putting away building blocks is appropriate for prekindergarten, but the candidate's understanding of the learning and development potential of this activity is limited to "they would have to notice the sizes and shapes in order to put them away correctly."

**Support:** The candidate has limited the discussion of child development to broad terms and phrases: "it engages them," "natural curiosity," "it gives them something visual," "hands-on learning." Had the candidate provided specific and relevant examples of what these terms mean when applied to sorting and classifying activities (e.g., working with concrete materials helps children to construct meaning for abstract terms such as *larger* and *smaller*), the response would have been stronger. Similarly, children in prekindergarten may or may not "notice the sizes and shapes" of building blocks when putting them away. The response lacks an indication of what a teacher could do to structure this activity so that it fosters an understanding of the properties of objects or other fundamental concepts in mathematics.

**Rationale:** This response touches upon some key ideas, but has not conveyed the reasons why these ideas are fundamental to prekindergarten teaching. The third sentence, "Manipulating concrete objects is very important in early childhood because it shows them that they can group things differently," provides an accurate but weak rationale. To "group things differently" requires an understanding that objects can have more than one property at the same time. Children of this age typically focus on one attribute at a time, and develop the ability to consider multiple properties of the same object over a period of time and through a variety of activities.

**SECOND SAMPLE WEAK RESPONSE FOR OPEN-RESPONSE  
ITEM ASSIGNMENT #2**

A child must understand that there are classifications for objects and categories used when describing them. Sorting and classifying objects regarding their color, size and shape is related to mathematics. The children will have to look at each object and look at their shapes and sizes. Shapes and sizes are related to mathematics. The children will need to know different sizes and be able to recognize certain shapes in order to be able to sort the objects correctly. Recognition will have to be taught and children will need to be able to recognize in order to sort.

A sorting and classifying learning experience that would help children learn to sort and classify objects would be providing different colored transportation vehicles. At first the children could sort them by color, since that's one of the first things they learn in preschool—not only because they're interested in colors but because recognizing colors is an important strategy used to describe objects. Later they could be broken down into other characteristics such as number of wheels, does it have a motor, how many people, etc.

Developing a child's understanding of classification is necessary to prepare them for their future education. Classification and sorting strategies are the fundamentals of math, science, and even English. When children are classifying they are learning about people, animals and objects in the world. By doing these types of activities children are learning more about their environment. We have some similarities to each other as well as some differences. By learning to classify, children can carry these concepts into other learning areas, such as learning about different cultures in social studies or animals in science.

## ANALYSIS FOR SECOND WEAK RESPONSE TO OPEN-RESPONSE ITEM ASSIGNMENT #2

*This is an example of a weak response because it is characterized by the following:*

**Purpose:** This response struggles to find a clear connection between sorting and classifying and a fundamental concept in mathematics, merely repeating that children need to be able to do this, and that "shapes and sizes are related to mathematics." The activity of sorting vehicles has potential for preschoolers, but the idea needs more development. While the final paragraph indicates the general significance of sorting and classifying across the curriculum and across the grades, it's unclear why the specific activity chosen (sorting transportation vehicles) promotes learning and development for prekindergarteners.

**Subject Matter Knowledge:** The response to each part of the assignment indicates that the candidate's knowledge is limited to broad generalities, such as "children will need to know different sizes" and "recognizing colors is an important strategy used to describe objects." In order to communicate a greater depth of subject matter knowledge, the candidate needs to provide an explanation of the specific meaning those generalities have when applied to prekindergarten learning and development. The essential subject matter knowledge this assignment requires is: what mathematical learning is going on when prekindergarteners sort and classify, what kind of activity would help prekindergarteners focus on the properties and characteristics of objects, and why that activity would foster learning and development at this age.

**Support:** This response lacks the relevant supporting details required to convey how the candidate's ideas relate to the specific aspects of this assignment. In the first paragraph, for example, the candidate might have been able to identify a specific mathematical concept if a specific material had been chosen, such as "a bin of assorted solid geometric blocks," and if a way children might classify them had been described, instead of using the general term "objects" and talking about being able to "recognize certain shapes." Similarly, if the idea of "different colored transportation vehicles" had included some examples (e.g., Tonka construction trucks, matchbox cars, oil company model tankers), the variety of ways a prekindergartener could classify these vehicles would have been more apparent. Supporting details help candidates communicate their ideas more clearly.

**Rationale:** Although several of the ideas expressed in this response are generally true, the candidate has been unable to show how the ideas are related to each other and how they connect to the focus of the assignment. Statements such as "shapes and sizes are related to mathematics" and "when children are classifying they are learning about people, animals, and objects in the world" are so broad that they apply to a variety of grades and learning situations. The response needs to be anchored in an understanding of why a particular classification activity is important for the learning and development of prekindergarteners, rather than describing how it might benefit them later on in their schooling.

**FIRST SAMPLE STRONG RESPONSE FOR OPEN-RESPONSE  
ITEM ASSIGNMENT #2**

Classification of shapes is directly related to being able to understand that different geometric objects have properties that may be similar or different -- such as triangles have three sides and three points, while squares have four of each. While sorting shapes of different sizes and colors, children are making sets of objects whose properties are alike in some way.

A good sorting and classifying activity for prekindergarteners would be to have a bin in the discovery area filled with a variety of natural materials -- such as leaves, rocks, and shells -- and provide sectioned trays and boxes that the children can use to sort the objects. They may choose to classify the objects by color, size, shape, texture, or any other property. As the children work, the teacher should ask them to talk about what they are doing: What's your idea? How do those go together? What is the same about these objects? Why are these different? The children then learn that objects have many attributes and that they can be sorted in different ways. To extend the activity, the teacher could make pictorial representations with the children during circle times to illustrate different ideas the children have had for sorting and classifying the objects.

This experience would foster learning and development because children of this age need concrete materials to help them begin to formulate important ideas about objects in the physical world, the variety of physical properties they may have, and the different ways those attributes can be described, organized, and generalized. As children talk about the activity among themselves and with the teacher, they are constructing a variety of concepts and developing language for discussing their ideas, such as *bigger than*, *smaller than*, *longer than*, *shorter than*, and *the same as*.

## ANALYSIS FOR FIRST STRONG RESPONSE TO OPEN-RESPONSE ITEM ASSIGNMENT #2

*This is an example of a strong response because it is characterized by the following:*

**Purpose:** The candidate addresses the assignment fully by focusing on the developmental characteristics of prekindergarten children and on the relationship between sorting and classifying activities and mathematical concepts. Specific and appropriate examples are provided to illustrate each point the candidate makes.

**Subject Matter Knowledge:** In the first paragraph, the candidate relates sorting and classifying to distinct mathematical concepts: properties of objects and sets. Classification of shape is illustrated accurately with the example of triangular vs. square properties. The activity is structured to help children focus on different properties among the objects and yet it is open-ended for the children to determine their own sets, as expressed in the teacher's question, "What's your idea?" In the last paragraph, the candidate's understanding of the connections between a young child's play with concrete materials and how mathematical understanding and language develop is indicated by specific phrases such as "the different ways those attributes can be described, organized, and generalized."

**Support:** Support throughout this response is relevant and important to the candidate's discussion of both child development and mathematics. The candidate provides accurate examples, as in contrasting the properties of triangles and squares ("triangles have three sides and three points, while squares have four of each"). The learning experience is presented with substantial details about the materials the teacher would provide (e.g., leaves, rocks, and shells, as well as sectioned trays and boxes), and specific questions the teacher can ask to develop language and cognition.

**Rationale:** Each part of the candidate's response reveals sound reasoning and a depth of understanding of early childhood development. The first paragraph describes logical connections between sorting and classifying activities in prekindergarten and fundamental mathematical concepts. After describing a detailed sorting and classifying activity in the second paragraph, the candidate follows up with a discussion about the specific developmental reasons for doing the activity and the role it plays in the child's learning.

**SECOND SAMPLE STRONG RESPONSE FOR OPEN-RESPONSE  
ITEM ASSIGNMENT #2**

When young children sort objects by color, shape and size, they often count the objects they've selected and organize them into a visual arrangement, such as rows. Arrays like this can be an important way for children to begin to explore the concepts of one-to-one correspondence and number conservation. For example, a row of five yellow triangles could be placed close together and then below it a row of five blue squares could be spread apart. After counting the objects in each row, the pre-K child might be surprised to find that both rows have the same number of objects.

Sorting and classifying activities can be done throughout the day. For instance, at circle time, the children can take off their shoes while the teacher leads a discussion about sorting them into categories. This could be followed by making pictorial representations of "our shoes" that involves some counting and comparing. The math area can be set up with colored geometric blocks children can sort and organize by different categories, while the teacher talks with children to help them verbalize their ideas about likenesses and differences. Even snack time can focus on different ways of sorting mixed cereals or fruit pieces into different shapes and colors, making arrays, and counting.

The best way to foster learning of any concept at the prekindergarten level is to weave it into many different everyday activities and routines the children do. This gives them an opportunity to construct and refine big ideas like "objects can be sorted into different sets that share a common property," and to see how that idea works in a lot of different contexts. As they are manipulating materials, their thinking is moving back and forth between those specific concrete objects and general ideas about how things can be classified.

## ANALYSIS FOR SECOND STRONG RESPONSE TO OPEN-RESPONSE ITEM ASSIGNMENT #2

*This is an example of a strong response because it is characterized by the following:*

**Purpose:** The candidate has responded fully to each aspect of the assignment. This first paragraph focuses on the relationship between sorting and mathematics. The learning experience, although it is a series of activities related to this concept rather than a single activity, is clearly presented as an interdisciplinary approach to the topic. The explanation of how prekindergarten children learn and develop is consistent with this approach.

**Subject Matter Knowledge:** This response shows a deep understanding of both fundamental concepts in mathematics and child development. Relating the way an array *looks* to the young child indicates the candidate's grasp of the origins of one-to-one correspondence. The cross-curriculum focus on sorting and classifying underscores the candidate's broad knowledge of the varied content needed to help children distinguish among different properties of objects in their everyday environment. That "big idea" is reflected in the importance the candidate gives to the related thinking processes (constructing and refining ideas about how objects can be sorted or classified and seeing how these ideas work in different contexts) in the last paragraph.

**Support:** Each aspect of this response includes enough supportive details to develop ideas fully, such as the array of yellow and blue shapes and how they could be visually reconfigured. The interdisciplinary approach to this topic is introduced in the first sentence of the second paragraph, "can be done throughout the day," and then detailed through four specific and related activities (shoes, graphs, blocks, snacks). These details provide relevant and important support for the candidate's presentation of a learning experience.

**Rationale:** This is an ably reasoned response in which the candidate has provided significant links between what children do and how they learn. In the opening paragraph, for example, the candidate relates the rote counting young children do to the process of learning that each number has a fixed meaning, even when the appearance of the objects counted changes (e.g., when objects are close together versus spread apart). The candidate links the idea of sorting and classifying to several different aspects of the day, such as circle time, activity areas, and snack time. The reasons provided, such as giving the children "an opportunity to construct big ideas," and "to see how that idea works in a lot of different contexts," are fundamental to this approach.



## PRACTICE TEST SCORE CALCULATION

The practice test score calculation is provided so that you may better gauge your performance and degree of readiness to take an MTEL test at an operational administration. Although the results of this practice test may be used as one indicator of potential strengths and weaknesses in your knowledge of the content on the official test, it is not possible to predict precisely how you might score on an official MTEL test.

The Sample Responses and Analyses for the open-response items may help you determine whether your responses are more similar to the strong or weak samples. The Scoring Rubric can also assist in estimating a score for your open responses. You may also wish to ask a mentor or teacher to help evaluate your responses to the open-response questions prior to calculating your total estimated score.

### How to Calculate Your Practice Test Score

Review the directions in the sample below and then use the blank practice test score calculation worksheet on the following page to calculate your estimated score.

#### SAMPLE

<b>Multiple-Choice Section</b>	
Enter the total number of multiple-choice questions you answered correctly:	<u>79</u>
Use Table 1 below to convert that number to the score and write your score in <b>Box A</b> :	<b>A:</b> <input style="width: 50px; text-align: center;" type="text" value="190"/>

<b>Open-Response Section</b>	
Enter the number of points (1 to 4) for your first open-response question:	<u>2</u>
Enter the number of points (1 to 4) for your second open-response question:	<u>4</u>
	=====
Add those two numbers (Number of open-response question points):	6
Use Table 2 below to convert that number to the score and write your score in <b>Box B</b> :	<b>B:</b> <input style="width: 50px; text-align: center;" type="text" value="50"/>

<b>Total Practice Test Score (Estimated MTEL Score)</b>	
Add the numbers in <b>Boxes A and B</b> for an estimate of your MTEL score:	<b>A + B =</b> <input style="width: 50px; text-align: center;" type="text" value="240"/>

Practice Test Score Calculation Worksheet: Early Childhood

Table 1:

Number of Multiple-Choice Questions Correct	Estimated MTEL Score	Number of Multiple-Choice Questions Correct	Estimated MTEL Score
0 to 25	80	61 to 65	155
26 to 30	80	66 to 70	167
31 to 35	87	71 to 75	178
36 to 40	98	76 to 80	190
41 to 45	110	81 to 85	201
46 to 50	121	86 to 90	213
51 to 55	133	91 to 95	224
56 to 60	144	96 to 100	235

Table 2:

Number of Open-Response Question Points	Estimated MTEL Score
2	31
3	36
4	41
5	46
6	50
7	55
8	60

Print the form below to calculate your estimated practice test score.

**Multiple-Choice Section**

Enter the total number of multiple-choice questions you answered correctly:

Use Table 1 above to convert that number to the score and write your score in **Box A**:

A:

**Open-Response Section**

Enter the number of points (1 to 4) for your first open-response question:

Enter the number of points (1 to 4) for your second open-response question:

=====

Add those two numbers (Number of open-response question points):

Use Table 2 above to convert that number to the score and write your score in **Box B**:

B:

**Total Practice Test Score (Estimated MTEL Score)**

Add the numbers in **Boxes A and B** for an estimate of your MTEL score:

A + B =