

PRACTICE EXAM 6: NYSTCE MULTI-SUBJECT TEACHERS OF CHILDHOOD (GRADES 1-6) (120 QUESTIONS)

This practice exam contains 120 selected-response questions: 40 Literacy and English Language Arts, 40 Mathematics, and 40 Arts and Sciences. The official NYSTCE Multi-Subject: Teachers of Childhood (Grades 1-6) test also includes one constructed-response item in Part One and one in Part Two. Official testing times are 2 hours for Part One, 2 hours 15 minutes for Part Two, and 1 hour for Part Three; the passing score is 520 for each part. Choose the best answer for each question.

1. A student hears the word smile and identifies /s/ as the first sound. Which phonological unit has the student identified?

- A. A syllable
- B. A morpheme
- C. A sentence
- D. A phoneme

2. A reader encounters the word disagreement and recognizes dis-, agree, and -ment. Which type of knowledge is being used most directly?

- A. Knowledge of rhyme
- B. Morphological knowledge
- C. Knowledge of alphabetical order
- D. Knowledge of punctuation

3. In the sentence 'The editor asked for a draft before Friday,' which clue most strongly indicates that draft means a preliminary version of writing?

- A. The number of syllables in draft
- B. The initial consonant sound

- C. The editor's request before a deadline
- D. The capitalization of Friday

4. An article alternates between describing solar power and wind power, noting how they are alike and how they differ. Which organizational structure is most prominent?

- A. Compare and contrast
- B. Chronological sequence
- C. Problem and solution
- D. Cause and effect only

5. A story is told by an outside narrator who reveals only Maya's thoughts, while other characters' thoughts are unknown. Which point of view is used?

- A. First person
- B. Third-person omniscient
- C. Second person
- D. Third-person limited

6. A character fails repeatedly at repairing a bicycle, studies the manual, asks questions, and eventually succeeds. Which theme is best supported?

- A. People should avoid tasks that are difficult.
- B. Persistence and learning from mistakes can lead to success.
- C. Manuals make practice unnecessary.
- D. Success always comes immediately to careful people.

7. A teacher asks students to identify figurative comparison in a set of lines. Which line uses a simile?

- A. The lake swallowed the moonlight.
- B. The lake was a mirror at dusk.

- C. The lake glittered like a sheet of glass.
- D. The lake glittered beneath the stars.

8. After reading that Lena carries an umbrella, checks a darkening sky, and closes the windows before leaving, what can a reader reasonably infer?

- A. Lena is moving to another house.
- B. Lena expects rain or a storm.
- C. Lena has lost her umbrella.
- D. Lena plans to paint the windows.

9. A paragraph explains that community gardens provide fresh produce, create shared green space, and give neighbors opportunities to work together. Which statement best expresses the main idea?

- A. Community gardens can benefit neighborhoods in several ways.
- B. Fresh produce is the only purpose of a garden.
- C. Neighbors should grow identical vegetables.
- D. Green spaces are useful only in rural areas.

10. A student is researching how a town responded to a flood that occurred fifty years ago. Which source would be a primary source?

- A. A diary entry written by a resident during the flood
- B. A recent textbook chapter summarizing the flood
- C. A documentary produced decades later
- D. An encyclopedia article about regional floods

11. Which word has the most positive connotation in a description of a person who carefully avoids waste?

- A. Stingy

- B. Miserly
- C. Thrifty
- D. Cheap

12. During sentence editing, which choice should a student keep because its subject and verb agree correctly?

- A. The basket of apples sit on the counter.
- B. The apples in the basket sits on the counter.
- C. The basket near the boxes sit on the counter.
- D. The basket of apples sits on the counter.

13. Which revision makes the pronoun reference clearest?

- A. When Nia spoke with Carla, she explained it.
- B. She explained the assignment when she spoke with her.
- C. When Nia spoke with Carla, Nia explained the assignment.
- D. When they spoke, she explained it.

14. Which sentence is complex?

- A. The rain stopped, and the players returned.
- B. The muddy field delayed the game.
- C. The rain stopped; the players cheered.
- D. Although the rain stopped, the field remained muddy.

15. An advertisement calls a product 'the only smart choice' but provides no evidence comparing it with alternatives. Which feature should a critical reader notice?

- A. The sentence contains a proper noun.
- B. The persuasive claim is unsupported by evidence.

- C. The product name is printed in large type.
- D. The advertisement uses complete sentences.

16. A poem repeats the same phrase at the beginning of several consecutive lines. What is the most likely effect of this repetition?

- A. It emphasizes an idea or feeling through recurring language.
- B. It changes every line into dialogue.
- C. It guarantees that each line has the same number of syllables.
- D. It removes the need for imagery.

17. A science article includes a labeled photograph with a caption explaining what readers should notice. What is the caption's primary function?

- A. To connect the image to information in the text
- B. To replace all information in the article
- C. To show how every word is pronounced
- D. To indicate the article's alphabetical order

18. A first-grade teacher wants to introduce the sound-spelling relationship for /sh/. Which approach is most explicit?

- A. Ask students to infer the pattern from silent reading only.
- B. Teach several unrelated spelling patterns at the same time.
- C. Have students memorize whole paragraphs containing sh.
- D. Explicitly teach sh = /sh/, model examples, then guide reading and spelling practice.

19. A teacher says ship and gives students three counters to push into boxes as they say each sound. Which skill is primarily being practiced?

- A. Sentence combining

- B. Alphabetizing
- C. Phoneme segmentation
- D. Morpheme definition

20. A teacher asks students to say plane without /p/. Which phonological-awareness task is this?

- A. Syllable blending
- B. Phoneme deletion
- C. Rhyme generation
- D. Letter naming

21. A beginning reader knows the sounds for m, a, and p. Which teacher prompt best supports decoding map?

- A. Guess the word from the illustration before looking at letters.
- B. Say each sound from left to right, then blend the sounds smoothly.
- C. Memorize map as an unanalyzed visual shape.
- D. Skip the word and continue to the next sentence.

22. Students are learning that ch in chin represents one sound. Which term best describes ch in this word?

- A. A vowel team
- B. A silent-e pattern
- C. An inflectional suffix
- D. A consonant digraph

23. Which word is most useful when teaching the common vowel-team pattern ai?

- A. train
- B. trap

- C. trim
- D. turn

24. A student is learning to divide the word sunset into two readable parts. Which division is most helpful?

- A. s / unset
- B. su / nset
- C. sun / set
- D. suns / et

25. A teacher is helping students understand the word preview. Which explanation best develops morphological knowledge?

- A. Have students count the letters without discussing meaning.
- B. Explain that pre- means before and view relates to seeing, so preview means seeing beforehand.
- C. Ask students to copy the word ten times from the board.
- D. Teach only the alphabetical position of p and v.

26. Which approach is most appropriate for teaching a high-frequency word with an irregular spelling element, such as said?

- A. Identify the regular sound-spelling parts and explicitly mark the unexpected part for repeated mapping practice.
- B. Tell students that no part of the word relates to sounds.
- C. Avoid showing the printed word until upper grades.
- D. Require students to guess it only from pictures.

27. A third-grade student reads accurately but very slowly. Which activity most directly targets reading rate while preserving accuracy?

- A. Copying vocabulary definitions for an hour
- B. Silent memorization of punctuation rules
- C. Sorting books by cover color
- D. Repeated oral reading of an appropriate passage with feedback

28. Which student behavior best demonstrates prosody during oral reading?

- A. Reading every word with identical stress and pauses
- B. Stopping after every single word
- C. Grouping words into meaningful phrases and varying expression with punctuation
- D. Naming each letter before reading the word

29. Before reading an informational text about migration, a teacher introduces the words migrate, seasonal, and habitat using child-friendly definitions and examples. What is the main instructional purpose?

- A. Replace reading the text with word study.
- B. Assess handwriting speed.
- C. Teach alphabetical order through the topic.
- D. Build vocabulary and background knowledge needed for comprehension.

30. During a read-aloud, a teacher pauses after an important event and asks, 'What changed, and what evidence shows that?' Which comprehension process is emphasized?

- A. Monitoring meaning and citing textual evidence
- B. Memorizing page numbers
- C. Practicing letter formation
- D. Sorting words alphabetically

31. A student has persistent difficulty blending and segmenting phonemes despite adequate instruction. Which next step is most appropriate?

- A. Wait several years without collecting more information.
- B. Replace literacy instruction with independent silent reading only.
- C. Provide targeted diagnostic assessment and systematic intervention in the weak phonological skills.
- D. Assume the difficulty reflects lack of effort.

32. A teacher dictates the word jump and asks students to say each sound while writing the letters that represent those sounds. Which connection is the activity strengthening?

- A. Topic sentence identification
- B. Phoneme-grapheme mapping for spelling
- C. Alphabetical shelving
- D. Narrative point of view

33. At the start of the year, a school gives all first graders a brief measure to identify students who may need additional reading support. What type of assessment is this?

- A. A universal screening assessment
- B. A final course grade
- C. A student self-selected portfolio only
- D. A norm-free anecdote with no common task

34. An English learner can explain a science idea orally in the home language but struggles to express it in English. Which support best preserves the student's content knowledge while developing English?

- A. Reduce the science concept to an unrelated easier topic.
- B. Use visuals and sentence frames so the student can express the same scientific idea in English.
- C. Grade the student only on accent rather than meaning.
- D. Prohibit all visual or linguistic supports.

35. After students state a claim about a character, which teacher follow-up best promotes text-based analysis?

- A. Ask whether the claim is the longest sentence in the discussion.
- B. Have students vote without returning to the text.
- C. Ask students to point to specific words or events that support the claim.
- D. Replace the reading with an unrelated worksheet.

36. A student draft has strong ideas but moves abruptly between paragraphs. Which revision strategy best addresses the problem?

- A. Change every verb to past tense regardless of meaning.
- B. Delete the strongest supporting details.
- C. Replace all paragraph breaks with commas.
- D. Add or revise transitions to clarify relationships among ideas.

37. Which teacher practice best supports productive collaborative discussion?

- A. Allow one student to speak for the entire discussion.
- B. Establish norms for listening, building on ideas, and referring to evidence.
- C. Discourage students from asking clarifying questions.
- D. Score only how loudly students speak.

38. Students are researching whether a school garden would support local pollinators. Which research practice is strongest?

- A. Use the first anonymous post found online as the only source.
- B. Copy claims without recording where they came from.
- C. Compare information from several credible sources and record which evidence supports each claim.
- D. Select sources only because their titles agree with the students' opinion.

39. A teacher wants grammar instruction to transfer to students' writing. Which approach is most effective?

- A. Teach isolated terminology only and never connect it to writing.
- B. Correct every error for students without explanation.
- C. Avoid discussing sentence structure during revision.
- D. Teach the convention in authentic sentences, then apply it during draft revision.

40. Students are reading a challenging historical article with essential grade-level ideas but dense vocabulary. Which scaffold best maintains the text's intellectual demand?

- A. Preteach essential terms and use guiding questions with the original article.
- B. Replace the article with an unrelated easy story.
- C. Tell students the answers before they read.
- D. Remove every difficult idea from the article.

41. In the number 508,407, what is the value of the digit 8?

- A. 80
- B. 800
- C. 8,000
- D. 80,000

42. A teacher wants to make identical supply packs using 18 red markers and 30 blue markers with no markers left over. What is the greatest number of identical packs that can be made?

- A. 3
- B. 6 packs
- C. 9
- D. 12

43. Mila walks $\frac{3}{4}$ mile before lunch and another $\frac{2}{3}$ mile after lunch. How far does she walk altogether?

- A. $\frac{5}{7}$
- B. $1\frac{1}{12}$
- C. $1\frac{7}{12}$
- D. $1\frac{5}{12}$

44. A copy machine produces 156 flyers in 3 minutes at a constant rate. How many flyers does it produce per minute?

- A. 52 flyers per minute
- B. 39 flyers per minute
- C. 53 flyers per minute
- D. 468 flyers per minute

45. A library receives 240 new books, and 35% of them are nonfiction. How many of the new books are nonfiction?

- A. 84
- B. 72
- C. 96
- D. 105

46. Which number is farthest left on a number line?

- A. -0.8
- B. -1.2
- C. 0.2
- D. -1.05

47. Starting at the origin, a point is moved 4 units left and 3 units up. What are its coordinates?

- A. (4, 3)

- B. (-3, 4)
- C. (4, -3)
- D. (-4, 3)

48. The relationship $y = 2.5x$ is proportional. What is y when $x = 8$?

- A. 10.5
- B. 18
- C. 20
- D. 25

49. A 4-inch by 7-inch rectangle is enlarged by a scale factor of 3. What are the new dimensions?

- A. 7 inches by 10 inches
- B. 8 inches by 14 inches
- C. 12 inches by 10 inches
- D. 12 inches by 21 inches

50. The temperature changes from 6 degrees to -5 degrees. What is the change in temperature?

- A. A decrease of 1 degree
- B. A decrease of 11 degrees
- C. An increase of 1 degree
- D. An increase of 11 degrees

51. Three notebooks cost \$7.50 at a constant price per notebook. How much will 8 notebooks cost?

- A. \$20.00
- B. \$15.00
- C. \$18.00
- D. \$22.50

52. A school chorus has 80 members. Twenty-five percent sing alto. How many members do not sing alto?

- A. 20 members
- B. 55 members
- C. 60 members
- D. 65 members

53. A rope is $\frac{5}{6}$ meter long. How many $\frac{2}{3}$ -meter lengths are contained in that amount of rope?

- A. $1\frac{1}{4}$
- B. $\frac{5}{9}$
- C. $\frac{4}{5}$
- D. $1\frac{1}{9}$

54. Fabric costs \$2.50 per meter. What is the cost of 3.6 meters of the fabric?

- A. \$6.10
- B. \$8.00
- C. \$90.00
- D. \$9.00

55. The ratio of blue beads to red beads is 4:7. If there are 12 blue beads, how many red beads are there?

- A. 15
- B. 21
- C. 18
- D. 28

56. A club's membership increases from 50 members to 65 members. What is the percent increase?

- A. 15%
- B. 23%
- C. 30%
- D. 65%

57. A 2.4-meter ribbon is being labeled in centimeters for a display. What length should be written on the label?

- A. 24 centimeters
- B. 240 centimeters
- C. 2,400 centimeters
- D. 0.24 centimeter

58. Four temperature anomalies relative to a baseline are -0.75, -0.6, 0.15, and 0.4. Which anomaly has the greatest numerical value?

- A. -0.75
- B. -0.6
- C. 0.4
- D. 0.15

59. What is the value of $4n + 7$ when $n = 6$?

- A. 24
- B. 28
- C. 35
- D. 31

60. Three identical admission tickets cost x dollars each. After a \$5 coupon is applied, the total is \$16. What is the price of one ticket?

- A. \$7
- B. \$3
- C. \$11
- D. \$21

61. A sequence begins 5, 9, 13, 17, What is the 12th term?

- A. 49
- B. 44
- C. 45
- D. 53

62. A 10-by-8 rectangle has a 4-by-3 rectangular corner removed. What is the area of the remaining shape?

- A. 56 square units
- B. 72 square units
- C. 68 square units
- D. 80 square units

63. What is the volume of a rectangular prism that is 6 units long, 4 units wide, and 5 units high?

- A. 15 cubic units
- B. 120 cubic units
- C. 60 cubic units
- D. 150 cubic units

64. A triangular garden has interior angles measuring 47 degrees and 58 degrees. What is the measure of the third interior angle?

- A. 65 degrees
- B. 85 degrees
- C. 105 degrees
- D. 75 degrees

65. A triangle has side lengths 5 cm, 5 cm, and 8 cm. How is it classified by side length?

- A. Scalene
- B. Equilateral
- C. Isosceles
- D. Right

66. On a coordinate grid, trail marker A is at $(-6, 2)$ and marker B is at $(1, 2)$. What is the horizontal distance from A to B?

- A. 7 units
- B. 5 units
- C. 3 units
- D. 9 units

67. Five seedlings have heights of 6, 8, 10, 12, and 14 centimeters. What is their mean height?

- A. 8
- B. 10
- C. 11
- D. 12

68. A bag contains 5 red, 3 blue, and 2 green tiles. What is the probability of choosing a blue tile at random?

- A. $\frac{1}{5}$
- B. $\frac{1}{3}$
- C. $\frac{1}{2}$
- D. $\frac{3}{10}$

69. A class records 12 books read on Monday and 21 books read on Thursday. How many more books were read on Thursday than on Monday?

- A. 7
- B. 12
- C. 9
- D. 33

70. What is the perimeter of a rectangle that is 9 cm long and 5 cm wide?

- A. 14 cm
- B. 45 cm
- C. 18 cm
- D. 28 cm

71. Four ribbons measure $\frac{1}{2}$ m, $\frac{3}{4}$ m, $\frac{3}{4}$ m, and 1 m. What is their total length?

- A. 2 meters
- B. 3 meters
- C. $2\frac{1}{2}$ meters
- D. $3\frac{1}{2}$ meters

72. What is the surface area of a cube with edge length 3 units?

- A. 54 square units
- B. 18 square units
- C. 27 square units
- D. 36 square units

73. A rectangular prism has volume 96 cubic units, length 8 units, and width 4 units. What is its height?

- A. 2 units
- B. 4 units
- C. 3 units
- D. 12 units

74. The point (3, -2) is reflected across the y-axis. What are the coordinates of its image?

- A. (-3, -2)
- B. (3, 2)
- C. (-3, 2)
- D. (2, -3)

75. A delivery log shows travel times of 9, 12, 14, 15, and 20 minutes. What is the range of the recorded travel times?

- A. 6
- B. 11
- C. 9
- D. 29

76. A student says that in 4,307 the 3 represents 30 because it is the third digit from the left. Which representation would best address the misconception?

- A. Have the student memorize the number's spoken form only.
- B. Switch immediately to multiplication facts.
- C. Avoid discussing the position of digits.
- D. Use a place-value chart and base-ten models to show 3 hundreds.

77. Students are comparing $\frac{2}{3}$ and $\frac{3}{4}$. Which representation best supports reasoning about fraction size?

- A. Write the numerators in alphabetical order.
- B. Place both fractions on the same number line between 0 and 1.
- C. Count the total digits in each fraction.
- D. Compare only the denominators and ignore the numerators.

78. A student calculates the perimeter of a 4-by-6 rectangle as 24 because $4 \times 6 = 24$. What is the best teacher response?

- A. Tell the student only that the answer is wrong and move on.
- B. Have the student memorize 20 without examining the diagram.
- C. Replace the rectangle with an unrelated subtraction problem.
- D. Trace the boundary, add four sides, and compare that with the area model.

79. Which teacher question most strongly promotes mathematical reasoning during a whole-class discussion?

- A. Can you explain why your method works and compare it with another method?
- B. What answer did you copy from the board?
- C. Who finished first?
- D. Can everyone repeat the answer without explanation?

80. After a lesson on equivalent fractions, which exit ticket would provide the most useful formative evidence?

- A. Ask whether they liked the lesson using only yes or no.
- B. Ask them to copy the date from the board.
- C. Ask students to generate an equivalent fraction and explain how they know it is equivalent.
- D. Record only who packed materials quickly.

81. A sealed container of liquid water is warmed. Which particle-level description best explains why the liquid expands slightly?

- A. The particles become new elements during the warming.
- B. The particles stop moving completely as temperature increases.
- C. The particles disappear from the sealed container entirely.
- D. Heating makes particles move faster and spread slightly farther apart.

82. A box slides farther across a smooth floor than across a rough rug after the same push. Which explanation best fits the observation?

- A. The rug eliminates gravity.
- B. The rug produces greater friction opposing the box's motion.
- C. The smooth floor has no mass.
- D. The box loses all inertia on the rug.

83. A simple circuit contains a battery, bulb, and gap. Which material placed in the gap is most likely to allow the bulb to light?

- A. A copper strip
- B. A rubber band
- C. A plastic ruler
- D. A dry wooden craft stick

84. A metal spoon left in hot soup becomes warm at the handle. Which energy-transfer process occurs through the spoon?

- A. Photosynthesis
- B. Evaporation only
- C. Conduction
- D. Magnetic induction

85. In a pond food web, algae are eaten by snails, and snails are eaten by fish. What is the role of the algae?

- A. Primary consumer
- B. Decomposer
- C. Top predator
- D. Producer

86. A desert plant has a thick waxy coating on its leaves. How can this trait help the plant survive?

- A. It causes the plant to stop cellular respiration.
- B. It makes sunlight unnecessary for the plant.
- C. It can reduce water loss from leaf surfaces.
- D. It guarantees that no organism can eat the plant.

87. Which characteristic is most clearly inherited rather than learned?

- A. A plant's genetically determined flower color
- B. A dog learning to sit on command
- C. A student learning to play piano
- D. A bird learning a route from older birds

88. Why are roots important to most land plants?

- A. They produce all of the plant's flowers directly.
- B. They anchor the plant and absorb water and mineral nutrients from the soil.

- C. They replace the need for stems and leaves.
- D. They make the plant independent of water.

89. Water vapor forms droplets on the outside of a cold glass. Which process produced the droplets?

- A. Melting
- B. Sublimation
- C. Freezing
- D. Condensation

90. Which statement best distinguishes weather from climate?

- A. Weather occurs only indoors, while climate occurs outdoors.
- B. Weather describes short-term atmospheric conditions, while climate describes long-term patterns in a region.
- C. Climate changes every hour, while weather never changes.
- D. Weather describes rocks, while climate describes soil.

91. What primarily causes the regular cycle of day and night on Earth?

- A. Earth's revolution around the Sun
- B. Changes in the Moon's distance from Earth
- C. Earth's rotation on its axis
- D. Seasonal changes in cloud cover

92. Over several nights, an observer notices that the visible illuminated portion of the Moon changes shape. Which explanation best accounts for this pattern?

- A. Changing geometry makes different portions of the Moon's sunlit half visible from Earth.
- B. Earth's shadow covers the Moon during every phase.
- C. The Moon produces different amounts of its own visible light.

D. Clouds permanently reshape the illuminated part of the Moon.

93. A stream carries loose sediment from a hillside and deposits it farther downstream. Which pair of processes is represented?

- A. Condensation followed by evaporation
- B. Freezing followed by melting
- C. Erosion followed by deposition
- D. Photosynthesis followed by respiration

94. Why are many earthquakes concentrated near tectonic plate boundaries?

- A. Plate boundaries prevent rocks from experiencing forces.
- B. Earthquakes occur only where there is no crust.
- C. Seismic waves are produced by sunlight heating the surface.
- D. Stress builds where plates interact, and sudden movement can release energy as seismic waves.

95. Students test whether fertilizer amount affects bean-plant height. They keep pot size, light, and water the same. Why are those conditions kept constant?

- A. To isolate fertilizer amount as the variable being tested
- B. To guarantee every plant grows to the same height
- C. To remove the need to measure plant height
- D. To make the fertilizer amount identical in every group

96. An engineering team builds a paper bridge, tests it, records where it bends, and changes the design before testing again. Which engineering practice is illustrated?

- A. Avoiding all measurement
- B. Iterative design based on test evidence
- C. Accepting the first design without evaluation

D. Changing several goals without considering test results

97. A map shows a school east of a library. If a student walks from the library to the school, which cardinal direction is the student traveling?

- A. North
- B. South
- C. West
- D. East

98. Why did many early settlements develop near rivers?

- A. Rivers eliminated the need for food production.
- B. Rivers prevented all conflict between communities.
- C. Rivers could provide water, transportation routes, and fertile land for agriculture.
- D. Rivers guaranteed identical climates in every region.

99. If demand for concert tickets rises while the number of tickets available remains fixed, what pressure would ordinarily be expected in a market?

- A. Upward pressure on ticket prices
- B. Automatic elimination of scarcity
- C. A guaranteed fall in demand to zero
- D. A permanent end to consumer choice

100. A student spends Saturday working for pay instead of attending a free community festival. What is the opportunity cost of that choice?

- A. Only the wages the student earns
- B. The value of the festival experience the student gives up
- C. Every possible activity in the city

D. The student's entire future income

101. Which example best illustrates checks and balances in the U.S. federal government?

- A. A mayor opens a city park.
- B. A private business changes its hours.
- C. The president vetoes a bill passed by Congress.
- D. A student council selects a class activity.

102. The national government regulates immigration while state governments issue driver's licenses and manage many local services. Which constitutional principle does this division of authority illustrate?

- A. State governments and the national government exercise authority in different areas under the same constitutional system.
- B. All public power is held by one town council.
- C. A private corporation writes binding criminal law for every state.
- D. Courts are replaced entirely by neighborhood clubs.

103. A city cannot punish a resident merely for peacefully criticizing a public policy. Which constitutional protection is most directly involved?

- A. A guarantee of free housing
- B. Freedom of speech
- C. A guarantee of a government job
- D. A requirement to join an official religion

104. A class is studying the opening day of a local factory in 1912. Which item would be a primary source for learning what the event looked like?

- A. A textbook chapter written in 2015
- B. An encyclopedia entry revised in 2020

- C. A documentary produced a century later
- D. A photograph taken at the factory opening in 1912

105. A historian notes that a factory opened, jobs increased, and the town's population then grew rapidly. Which historical reasoning skill is being used when the historian asks whether the factory contributed to the population growth?

- A. Alphabetical ordering
- B. Map projection selection
- C. Cause-and-effect analysis
- D. Musical interpretation

106. Which document announced the American colonies' decision to separate politically from Great Britain in 1776?

- A. The Declaration of Independence
- B. The Articles of Confederation
- C. The U.S. Constitution
- D. The Bill of Rights

107. Why did the framers replace the Articles of Confederation with the U.S. Constitution?

- A. They wanted to eliminate all state governments immediately.
- B. They wanted a stronger national government with divided and limited powers.
- C. They intended to create a hereditary monarchy.
- D. They wanted Congress to have no national responsibilities.

108. Which constitutional amendment prohibited denying the right to vote on account of sex?

- A. The Nineteenth Amendment
- B. The First Amendment

- C. The Tenth Amendment
- D. The Twenty-Second Amendment

109. A family leaves a region because jobs are scarce and moves to another region where employers are hiring. Which concepts best describe these factors?

- A. Two examples of absolute location
- B. Two branches of government
- C. A tariff and a quota
- D. A push factor and a pull factor

110. How did canals and railroads generally affect economic development in the United States during industrialization?

- A. They made long-distance trade impossible.
- B. They ended the need to move raw materials.
- C. They prevented cities from growing near transportation hubs.
- D. They lowered transportation barriers and connected producers with wider markets.

111. A resident attends a zoning hearing, comments on a proposed neighborhood change, and submits written feedback to the town board. What civic role is the resident performing?

- A. Personally changing a federal court ruling
- B. Direct participation in local government
- C. Issuing official national currency
- D. Creating a new state without legal process

112. Two countries specialize in products for which each has a lower opportunity cost and then trade. Which economic idea explains why both can potentially benefit?

- A. Judicial review

- B. Absolute location
- C. Comparative advantage
- D. Separation of church and state

113. Which pair of colors is complementary on a traditional color wheel?

- A. Blue and green
- B. Blue and orange
- C. Red and orange
- D. Yellow and green

114. In music, what does the marking *allegro* generally indicate?

- A. A fast, lively tempo
- B. A gradual decrease in volume
- C. A complete stop after every note
- D. A requirement to sing without pitch

115. In theater, what is blocking?

- A. Mixing paint colors for scenery only
- B. Tuning every musical instrument
- C. Planning and rehearsing where actors move and position themselves onstage
- D. Writing footnotes for a research paper

116. A dance teacher asks students to perform the same movement first close to the floor and then high above shoulder level. Which movement element is being explored?

- A. Meter
- B. Perspective
- C. Pitch

D. Level

117. In the FITT principle for planning exercise, what does the first T represent?

- A. Temperature of the room
- B. Talent level
- C. Team size
- D. Time, or the duration of activity

118. Which meal best reflects the idea of including multiple food groups in a balanced meal?

- A. Grilled chicken, brown rice, broccoli, fruit, and milk
- B. Only candy and soda
- C. Only potato chips
- D. Only frosting and cookies

119. Which method is safest for thawing frozen meat for later cooking?

- A. Leave it on the kitchen counter all day.
- B. Thaw it in the refrigerator so it remains at a safe cold temperature.
- C. Place it in direct sunlight for several hours.
- D. Store it beside a warm radiator until soft.

120. Which resume bullet most effectively communicates a student's work experience?

- A. Stuff happened at my job during most work shifts.
- B. I was there sometimes and completed some assigned work.
- C. Organized weekly inventory and reduced errors by checking deliveries against records.
- D. Work was work, and I did various things as needed.

Practice Exam 6: Answer Key and Explanations

- 1. D** — The sound /s/ is a single speech sound, so it is a phoneme. A syllable contains a vowel sound and may include several phonemes, while a morpheme is the smallest meaningful language unit. A sentence is a grammatical unit of words, not a unit of speech sound. That contrast identifies the precise literacy target being assessed.
- 2. B** — The reader is breaking disagreement into meaningful morphemes: the prefix dis-, the base agree, and the suffix -ment. Morphological knowledge supports word analysis and meaning. Rhyme, alphabetical order, and punctuation concern other features of language but do not explain how meaningful word parts combine. This makes the response more precise than selecting a related but less directly supported literacy concept.
- 3. C** — The surrounding context links draft with an editor and a deadline, making a preliminary written version the appropriate meaning. Readers use semantic and situational context to resolve multiple-meaning words. Syllable count, initial sound, and capitalization provide form information but do not determine which meaning of draft fits. That contrast identifies the precise literacy target being assessed.
- 4. A** — The article organizes information around similarities and differences between two energy sources, which is a compare-and-contrast structure. Chronology emphasizes time order, problem-solution presents an issue and response, and cause-effect emphasizes reasons and results. The repeated comparison of two subjects is the defining feature here. Matching the observable reading or writing behavior to the correct skill is the key distinction.
- 5. D** — The narrator uses an outside third-person perspective but limits access to one character's thoughts, which defines third-person limited narration. First person uses I or we, omniscient narration can reveal multiple characters' thoughts, and second person directly addresses the reader as you. This makes the response more precise than selecting a related but less directly supported literacy concept.
- 6. B** — The character improves by continuing to work, seeking information, and learning from unsuccessful attempts. Those events support a theme about persistence and growth through mistakes. The other choices contradict the plot because the task remains difficult, practice is necessary, and success does not occur immediately. Matching the observable reading or writing behavior to the correct skill is the key distinction.
- 7. C** — The line comparing the lake with glass uses the word like, making the comparison explicit and therefore a simile. 'The lake swallowed' gives the lake a humanlike action, while 'the lake was a mirror' makes a direct metaphor. The remaining line describes literal appearance without a figurative comparison. The wording like a sheet of glass is the decisive clue.
- 8. B** — The clustered details all point toward preparation for wet or stormy weather: an umbrella, a darkening sky, and closed windows. An inference combines textual evidence with reasonable background knowledge. The other choices are not supported by the details and would require

information the passage does not provide. That contrast identifies the precise literacy target being assessed.

9. A — The paragraph gives several distinct neighborhood benefits, so the main idea must encompass all of them rather than isolate one detail. Fresh produce is only one benefit, and the other distractors introduce claims not supported by the paragraph. A main idea summarizes the central point across supporting details. That contrast identifies the precise literacy target being assessed.

10. A — A diary written by someone experiencing the flood at the time is a firsthand record and therefore a primary source. Textbooks, documentaries created later, and encyclopedia articles interpret or summarize evidence after the event, making them secondary sources for this research question. Matching the observable reading or writing behavior to the correct skill is the key distinction.

11. C — Thrifty generally suggests careful, sensible use of money or resources, giving it a more positive connotation. Stingy, miserly, and cheap often imply excessive unwillingness to spend or share. Connotation concerns the emotional or evaluative associations a word carries beyond its basic denotative meaning. This makes the response more precise than selecting a related but less directly supported literacy concept.

12. D — In 'The basket of apples sits on the counter,' the subject is basket, which is singular, so sits is the matching singular verb. Apples appears inside a prepositional phrase and does not control agreement. The other choices incorrectly let a nearby noun determine the verb form instead of the grammatical subject.

13. C — Repeating Nia identifies exactly who explained the assignment and removes the ambiguous pronoun reference created by she. The other versions contain pronouns that could refer to more than one person or thing. Clear pronoun antecedents help readers track who is performing each action without guessing. Matching the observable reading or writing behavior to the correct skill is the key distinction.

14. D — A complex sentence contains one independent clause and at least one dependent clause. 'Although the rain stopped' is dependent, while 'the field remained muddy' is independent. The other choices are a compound sentence, a simple sentence, and two independent clauses joined by a semicolon. This makes the response more precise than selecting a related but less directly supported literacy concept.

15. B — Calling something 'the only smart choice' is a strong persuasive judgment, but the advertisement provides no comparison or evidence to support it. Critical readers distinguish claims from evidence. Typography and sentence completeness may affect presentation, yet they do not establish whether the central claim is justified. That contrast identifies the precise literacy target being assessed.

16. A — Repeating a phrase at the beginnings of lines can create emphasis, rhythm, and cohesion, directing attention to an important idea or emotion. Repetition does not automatically create dialogue, equal syllable counts, or eliminate imagery. Poets can combine repetition with many other structural and figurative techniques. Matching the observable reading or writing behavior to the correct skill is the key distinction.

17. A — A caption identifies or explains an image so readers can relate visual evidence to the surrounding text. It supports comprehension by directing attention to relevant features. A caption does not replace the entire article, provide pronunciation for every word, or organize the article alphabetically. This makes the response more precise than selecting a related but less directly supported literacy concept.

18. D — Explicit phonics instruction directly names the sound-spelling relationship, models it, and gives students guided practice applying it in reading and spelling. Asking students to infer the pattern alone is less explicit, while unrelated patterns or paragraph memorization do not focus attention on the target correspondence. Matching the observable reading or writing behavior to the correct skill is the key distinction.

19. C — Students separate ship into its individual phonemes /sh/ /i/ /p/ and represent each sound with a counter. That is phoneme segmentation. The activity is oral and sound based even though counters provide a visual aid. It does not involve combining sentences, alphabetizing words, or defining meaningful morphemes. That contrast identifies the precise literacy target being assessed.

20. B — The task requires removing the phoneme /p/ from plane and producing the remaining spoken form, making it phoneme deletion. Syllable blending combines larger spoken units, rhyme generation produces words with matching endings, and letter naming concerns print rather than manipulation of speech sounds. This makes the response more precise than selecting a related but less directly supported literacy concept.

21. B — Sounding from left to right and blending connects known grapheme-phoneme correspondences into a spoken word, which is the core decoding process for a regular CVC word such as map. Guessing, visual memorization, and skipping do not build the transferable alphabetic skill the student is ready to use. That contrast identifies the precise literacy target being assessed.

22. D — A consonant digraph consists of two consonant letters that work together to represent one phoneme, as ch does in chin. Vowel teams involve vowel letters, silent-e patterns use final e to affect a preceding vowel, and suffixes are meaningful units added to word bases. Matching the observable reading or writing behavior to the correct skill is the key distinction.

23. A — Train contains the vowel team ai representing the long-a sound and therefore provides a direct example of the target pattern. Trap and trim use single short vowels, while turn contains a vowel influenced by r. Selecting clear examples helps students focus on the sound-spelling relationship being taught. That contrast identifies the precise literacy target being assessed.

24. C — Sunset is a compound word made from the recognizable words sun and set. Dividing it at the meaningful boundary produces two familiar syllables and supports both decoding and meaning. The other divisions split the word at locations that do not correspond to its morphemic or syllabic structure. That contrast identifies the precise literacy target being assessed.

25. B — Analyzing pre- and view shows how meaningful word parts combine to create the meaning of preview. This builds morphological awareness and supports transfer to other words containing the same

prefix or base. Counting letters, copying, and alphabet work do not explain the word's internal meaning structure. That contrast identifies the precise literacy target being assessed.

26. A — An irregular high-frequency word can still contain predictable sound-spelling information. Explicitly mapping the regular parts and drawing attention to the unexpected part supports orthographic learning. Treating the whole word as soundless, delaying print, or relying on pictures does not strengthen durable word recognition. This makes the response more precise than selecting a related but less directly supported literacy concept.

27. D — Repeated oral reading gives the student multiple opportunities to read the same appropriate text accurately and increasingly smoothly, while feedback can correct errors and support phrasing. Vocabulary copying, punctuation memorization, and book sorting do not provide focused practice coordinating accurate word recognition with fluent rate. Matching the observable reading or writing behavior to the correct skill is the key distinction.

28. C — Prosody involves expressive, appropriately phrased oral reading that reflects syntax, punctuation, and meaning. Grouping words into meaningful units and varying expression demonstrates that feature of fluency. Word-by-word pauses, flat stress, and letter naming disrupt rather than demonstrate natural phrasing and expression. Matching the observable reading or writing behavior to the correct skill is the key distinction.

29. D — Preteaching important content words can reduce vocabulary barriers and activate concepts students will need to understand the text. The words are taught in meaningful context rather than as an end in themselves. This supports comprehension; it does not replace reading, measure handwriting, or primarily teach alphabetization. That contrast identifies the precise literacy target being assessed.

30. A — The question prompts students to track changes in the text and justify an interpretation with evidence, supporting active comprehension monitoring. Students must connect details to meaning rather than merely recall isolated information. Page numbers, handwriting, and alphabetization do not address the reasoning demanded by the prompt. That contrast identifies the precise literacy target being assessed.

31. C — Persistent difficulty with foundational phonological skills calls for more precise assessment and systematic intervention matched to the identified need. Delaying action, removing explicit instruction, or attributing the problem to effort does not provide useful evidence or support. Instructional decisions should be based on observed skill performance and progress data. That contrast identifies the precise literacy target being assessed.

32. B — Students are coordinating the phonemes in a spoken word with the graphemes used to represent those sounds in print. That phoneme-grapheme mapping supports spelling and word recognition. Topic sentences, alphabetical organization, and point of view are different literacy skills not targeted by this sound-to-print task. Matching the observable reading or writing behavior to the correct skill is the key distinction.

33. A — Universal screening is brief, administered broadly, and designed to identify students who may be at risk and need closer assessment or support. A final grade summarizes later performance, while an

optional portfolio or informal anecdote does not serve the same standardized early-identification function across all students. That contrast identifies the precise literacy target being assessed.

34. B — Visuals and sentence frames reduce language-production demands while keeping the scientific concept intact, allowing the student to practice academic English without erasing content understanding. Replacing the concept, grading accent, or banning supports confounds language proficiency with subject knowledge and provides less useful instructional information. Matching the observable reading or writing behavior to the correct skill is the key distinction.

35. C — Asking for specific textual evidence requires students to connect an interpretation to what the author wrote. That practice strengthens analysis and accountable discussion. Sentence length, unsupported voting, and unrelated worksheets do not test whether the claim is grounded in details from the text. This makes the response more precise than selecting a related but less directly supported literacy concept.

36. D — Transitions help readers understand how one paragraph or idea relates to the next, directly addressing abrupt movement in an otherwise strong draft. Changing tense indiscriminately, deleting strong evidence, or removing paragraph structure would create new problems rather than improve coherence and organization. The other choices describe different language processes and do not match the evidence in the stem.

37. B — Discussion norms that emphasize listening, evidence, and building on others' ideas make participation more purposeful and equitable. Dominating the conversation, discouraging clarification, or rewarding volume does not promote collaborative reasoning. Effective discussion instruction teaches both how to contribute ideas and how to respond constructively to peers. That contrast identifies the precise literacy target being assessed.

38. C — Strong research compares credible sources, tracks evidence, and preserves source information so claims can be evaluated and cited. Relying on one anonymous post, copying without attribution, or choosing only sources that confirm a preferred conclusion weakens credibility and encourages bias rather than inquiry. This makes the response more precise than selecting a related but less directly supported literacy concept.

39. D — Grammar instruction is more likely to transfer when students examine how a convention functions in meaningful sentences and then use it while revising their own writing. Isolated labels, unexplained corrections, and avoiding sentence-level discussion give students fewer opportunities to connect knowledge with purposeful composition. The other choices describe different language processes and do not match the evidence in the stem.

40. A — A limited vocabulary preview and guiding questions provide access while preserving the original article's important ideas and evidence. Replacing the text, supplying answers, or stripping away difficult concepts lowers the cognitive demand rather than scaffolding students toward successful engagement with appropriately challenging material. Matching the observable reading or writing behavior to the correct skill is the key distinction.

41. C — The digit 8 is in the thousands place, so its value is eight thousand. Place value depends on a digit's position, not simply on the digit itself. The other values correspond to the tens, hundreds, or ten-thousands places and therefore do not match the position of 8. A quick substitution or estimate also confirms the result.

42. B — The greatest number of identical packs must divide both 18 and 30 with no remainder, so the problem asks for their greatest common factor. The common factors are 1, 2, 3, and 6, making 6 the greatest possible number of packs. Each pack would contain 3 red and 5 blue markers.

43. D — Add the two distances using a common denominator of 12. Three fourths is nine twelfths, and two thirds is eight twelfths, giving seventeen twelfths total. Seventeen twelfths equals one and five twelfths miles. The distractors result from adding denominators, converting incorrectly, or making an arithmetic error. The unit in the final answer remains miles because both addends are distances.

44. A — A per-minute rate asks for the number of flyers produced in one minute. Divide 156 flyers by 3 minutes to get 52 flyers per minute. Multiplying instead of dividing or making an inaccurate quotient produces the distractors. The rate's units must compare flyers with minutes because those are the quantities in the situation.

45. A — Convert 35 percent to 0.35 and multiply by the whole amount, 240 books. The product is 84, so 84 new books are nonfiction. An equivalent method is to find 30 percent and 5 percent separately, then add those amounts. The distractors reflect nearby percentages or incorrect multiplication with the full shipment.

46. B — Numbers farther left on a number line are smaller. Among the choices, negative 1.2 is less than negative 1.05 and negative 0.8, while positive 0.2 lies to the right of all negative values. Comparing negative decimals by place value confirms the ordering. The distractors reflect common arithmetic, representation, or interpretation errors rather than the stated relationship.

47. D — Moving left from the origin changes the x-coordinate in the negative direction, giving $x = -4$. Moving up changes the y-coordinate positively, giving $y = 3$. Coordinates are written in x,y order, so the point is $(-4, 3)$. The distractors reverse signs or coordinate order. Representing the relationship first helps distinguish the intended mathematics from tempting but incorrect operations.

48. C — Substitute 8 for x in $y = 2.5x$. Multiplying 2.5 by 8 gives 20, so the ordered pair $(8, 20)$ lies on the proportional relationship. Adding instead of multiplying or using a nearby multiple does not preserve the constant of proportionality. Checking the units and magnitude confirms that the result fits the quantities in the problem.

49. D — An enlargement with scale factor 3 multiplies every linear dimension by 3. Thus 4 becomes 12 and 7 becomes 21. Adding 3, doubling, or applying the factor to only one dimension would not create a similar rectangle with the required scale factor. The distractors reflect common arithmetic, representation, or interpretation errors rather than the stated relationship.

50. B — Compute final minus initial: $-5 - 6 = -11$. The negative sign means the temperature decreased, and the magnitude of the change is 11 degrees. Looking only at the absolute values 6 and 5 can lead to

the incorrect one-degree distractors. Representing the relationship first helps distinguish the intended mathematics from tempting but incorrect operations.

51. A — First find the unit price: \$7.50 divided by 3 is \$2.50 per notebook. Multiply \$2.50 by 8 to get \$20.00. The relationship is proportional because the price per notebook is constant. The distractors result from incorrect scaling or multiplication. Checking the units and magnitude confirms that the result fits the quantities in the problem.

52. C — Twenty-five percent of 80 members is 20, so 20 chorus members sing alto. The question asks for those who do not sing alto, so subtract 20 from the total: $80 - 20 = 60$ members. The distractors reflect using the alto count itself or making an incorrect percentage or subtraction calculation.

53. A — The question asks how many groups of two thirds fit into five sixths, so divide $\frac{5}{6}$ by $\frac{2}{3}$. Multiplying by the reciprocal gives $\frac{5}{6} \times \frac{3}{2} = \frac{15}{12} = \frac{5}{4}$, or $1 \frac{1}{4}$. The distractors come from multiplying straight across or using an incorrect reciprocal. Interpreting division as how many groups fit clarifies why the reciprocal is used.

54. D — Multiply the unit price by the number of meters: $\$2.50 \times 3.6 = \9.00 . One way to verify is $25 \times 36 = 900$ and then account for the two decimal places in the factors. Adding the numbers or misplacing the decimal produces the distractors. The monetary context also confirms that the product should be expressed in dollars.

55. B — Twelve blue beads is three times 4, so the equivalent ratio must multiply the red quantity 7 by the same factor of 3. That gives 21 red beads. Equivalent ratios require scaling both terms by the same multiplier, not adding a fixed amount or using unequal factors. A quick substitution or estimate also confirms the result.

56. C — The increase is $65 - 50 = 15$ members. Divide the increase by the original amount: $\frac{15}{50} = 0.30$, or 30 percent. Percent change is based on the original quantity, not the new total. Using 15 directly as a percent or dividing by 65 gives incorrect values. A quick substitution or estimate also confirms the result.

57. B — One meter equals 100 centimeters, so converting 2.4 meters to centimeters requires multiplying by 100. That gives 240 centimeters. Because centimeters are smaller units than meters, the numerical value should become larger, which is a useful reasonableness check. The distractors reflect moving the decimal point in the wrong direction or too far.

58. C — Positive values are greater than negative values, so the comparison reduces to 0.15 and 0.4. Writing them as hundredths gives 0.15 and 0.40, making 0.4 clearly larger. The negative anomalies lie below zero and therefore cannot be the greatest among these four values. Placing all four values on a number line gives the same ordering.

59. D — Substitute 6 for n : $4(6) + 7 = 24 + 7 = 31$. The multiplication must be completed before the addition. The distractors reflect stopping after the product, using an incorrect addition, or applying the operations in a way that does not match the expression. Representing the relationship first helps distinguish the intended mathematics from tempting but incorrect operations.

60. A — The situation is modeled by $3x - 5 = 16$. Add 5 to both sides to get $3x = 21$, then divide by 3 to obtain $x = 7$. Substituting verifies the result: three \$7 tickets cost \$21, and the \$5 coupon reduces the total to \$16. This substitution check confirms that the equation and context agree.

61. A — The sequence increases by 4 each time. Starting with 5 as the first term, the n th term is $5 + 4(n - 1)$. For $n = 12$, that is $5 + 44 = 49$. The distractors result from using the wrong number of increments or arithmetic. The distractors reflect common arithmetic, representation, or interpretation errors rather than the stated relationship.

62. C — The full rectangle has area $10 \times 8 = 80$ square units. The removed corner has area $4 \times 3 = 12$ square units. Subtracting gives $80 - 12 = 68$ square units. The other values omit, miscalculate, or incorrectly combine one of these areas. Representing the relationship first helps distinguish the intended mathematics from tempting but incorrect operations.

63. B — Volume of a rectangular prism is length times width times height. Multiplying $6 \times 4 \times 5$ gives 120 cubic units. Volume measures three-dimensional space, so the units are cubic. Adding dimensions or multiplying only two dimensions would not calculate volume. Checking the units and magnitude confirms that the result fits the quantities in the problem.

64. D — The interior angles of a triangle sum to 180 degrees. Adding the two known angles gives $47 + 58 = 105$ degrees. Subtracting from 180 leaves 75 degrees for the third angle. The other choices result from incomplete subtraction, adding an extra ten degrees, or confusing the triangle total with another angle relationship.

65. C — An isosceles triangle has at least two congruent sides, and this triangle has two sides of length 5 cm. It is not scalene because not all sides differ, and it is not equilateral because all three are not equal. Right describes angle measure rather than classification by side length. A quick substitution or estimate also confirms the result.

66. A — The two markers share the same y -coordinate, so their separation is entirely horizontal. Find the absolute difference between the x -coordinates: $|1 - (-6)| = |7| = 7$ units. Ignoring the negative sign or counting coordinate labels rather than the spaces between positions produces the smaller distractor values. Because both points share $y = 2$, no vertical distance is involved.

67. B — Add the five seedling heights to obtain 50 centimeters, then divide by the five seedlings. The mean height is 10 centimeters. The values are also evenly balanced around 10, providing a quick reasonableness check. The distractors select individual measurements or reflect an incorrect total or division. Dividing the total by exactly five observations is essential to the definition of mean.

68. D — There are 10 tiles total and 3 favorable outcomes, so the probability of choosing blue is $3/10$. Probability for equally likely outcomes is favorable outcomes divided by total outcomes. The distractors use the wrong total or compare blue tiles with only one other color. Representing the relationship first helps distinguish the intended mathematics from tempting but incorrect operations.

69. C — The phrase 'how many more' asks for the difference between the two counts. Subtract 12 from 21 to get 9. The other choices reflect an incorrect subtraction, repeating the Monday value, or adding the

two counts instead of comparing them. Checking the units and magnitude confirms that the result fits the quantities in the problem.

70. D — Perimeter is the distance around the rectangle, so add all four sides: $9 + 5 + 9 + 5 = 28$ cm. Equivalently, $2(9 + 5) = 28$. Multiplying 9 by 5 gives area, not perimeter, and the other sums omit sides. The distractors reflect common arithmetic, representation, or interpretation errors rather than the stated relationship.

71. B — Add the ribbon lengths using fourths: one half is two fourths, so the total is $\frac{2}{4} + \frac{3}{4} + \frac{3}{4} + \frac{4}{4} = \frac{12}{4} = 3$ meters. The repeated three-fourths values must both be included. The distractors omit or miscombine part of the data. Representing the relationship first helps distinguish the intended mathematics from tempting but incorrect operations.

72. A — A cube has six congruent square faces. Each face has area $3 \times 3 = 9$ square units, so the total surface area is $6 \times 9 = 54$ square units. Twenty-seven is the cube's volume, not its surface area, and the other choices count too few faces. A quick substitution or estimate also confirms the result.

73. C — Use $V = lwh$. Substituting the known values gives $96 = 8 \times 4 \times h = 32h$. Dividing 96 by 32 gives $h = 3$ units. Multiplying or dividing by only one of the given dimensions would not preserve the volume relationship. The distractors reflect common arithmetic, representation, or interpretation errors rather than the stated relationship.

74. A — Reflection across the y-axis changes the sign of the x-coordinate while leaving the y-coordinate unchanged. Thus $(3, -2)$ becomes $(-3, -2)$. Changing the y sign reflects across the x-axis, while swapping coordinates represents a different transformation. Representing the relationship first helps distinguish the intended mathematics from tempting but incorrect operations.

75. B — Range measures the spread from the smallest observation to the largest. The minimum travel time is 9 minutes and the maximum is 20 minutes, so the range is $20 - 9 = 11$ minutes. The distractors confuse range with a single endpoint, a partial difference, or an addition of values.

76. D — A place-value chart makes the positional structure explicit: thousands, hundreds, tens, and ones. Pairing it with base-ten representations helps the student connect the digit 3 with three hundreds rather than a counting position from the left. The other approaches do not directly confront the misconception about place value. A quick substitution or estimate also confirms the result.

77. B — A shared number line represents both fractions as numbers on the same scale, allowing students to reason about their relative positions and benchmark values. Alphabetical order and digit counts are irrelevant, while comparing only denominators ignores how numerator and denominator work together to determine fraction magnitude. Representing the relationship first helps distinguish the intended mathematics from tempting but incorrect operations.

78. D — Tracing the boundary connects perimeter with distance around the shape, while comparing with the 4×6 array clarifies that multiplication here gives area. This addresses the conceptual confusion between two measures. Simply correcting, memorizing, or changing topics does not help the student reconstruct the underlying meanings. A quick substitution or estimate also confirms the result.

79. A — Asking students to justify a method and compare strategies makes reasoning visible and creates opportunities to examine mathematical relationships. Copying, speed, and repetition can produce answers without revealing understanding. Productive discourse focuses not only on what the answer is but also on why a strategy is valid. A quick substitution or estimate also confirms the result.

80. C — Generating and explaining an equivalent fraction reveals both procedural success and conceptual reasoning, giving the teacher evidence for next instructional steps. Liking the lesson, copying the date, or packing quickly may provide other information but does not directly assess understanding of equivalent fractions. Representing the relationship first helps distinguish the intended mathematics from tempting but incorrect operations.

81. D — Heating increases the average kinetic energy of the water particles, so their motion increases and their average spacing can increase slightly, producing thermal expansion. The particles remain water particles; heating does not convert them into new elements, stop molecular motion, or make matter disappear. The other choices refer to real scientific ideas but would predict a different observation or mechanism.

82. B — Friction is a force that opposes relative motion between surfaces. The rough rug generally creates more friction than the smooth floor, so the box slows more quickly. Gravity, floor mass, and inertia do not disappear because the surface changes; the key difference is the resisting frictional force. The observed evidence is consistent with that scientific mechanism.

83. A — Copper is an electrical conductor, so it can complete the circuit and allow electric current to flow through the bulb. Rubber, plastic, and dry wood are commonly used as insulators because they resist current under ordinary classroom conditions. Completing a circuit requires a conducting path. The observed evidence is consistent with that scientific mechanism.

84. C — Thermal energy moves through the solid metal from the hotter end toward the cooler handle by conduction, which transfers energy through particle interactions within a material. Photosynthesis stores light energy in chemical form, evaporation is a phase change at a surface, and magnetic induction concerns magnetic and electric phenomena. The observed evidence is consistent with that scientific mechanism.

85. D — Algae make organic food using energy from sunlight and therefore function as producers. Snails that eat the algae are consumers, and fish occupy a higher consumer level in this simplified chain. Decomposers obtain energy by breaking down dead material rather than by serving as the photosynthetic base of the web.

86. C — A thick waxy coating can reduce evaporation and water loss from leaf surfaces, which is advantageous where water is scarce. The trait does not eliminate cellular respiration, replace the need for light in photosynthesis, or guarantee protection from herbivores. Adaptations increase survival or reproduction under particular environmental conditions. The observed evidence is consistent with that scientific mechanism.

87. A — Inherited traits are transmitted through genetic information from parents to offspring. Flower color can be strongly influenced by inherited genes, whereas trained behaviors and learned skills develop through experience or instruction. Some traits reflect both genes and environment, but the plant example most directly represents inheritance among these choices. The observed evidence is consistent with that scientific mechanism.

88. B — Roots commonly anchor plants and take up water and mineral nutrients needed for growth and transport. Flowers arise from specialized shoot structures, while stems and leaves perform other essential functions. Roots do not make plants independent of water; instead, water uptake is one of their major roles. The observed evidence is consistent with that scientific mechanism.

89. D — Water vapor in the surrounding air cools near the cold glass and changes from gas to liquid, a process called condensation. The water does not pass from solid to liquid, solid directly to gas, or liquid to solid. The droplets come from atmospheric water vapor rather than leaking through the glass.

90. B — Weather refers to atmospheric conditions over relatively short periods, such as current temperature or precipitation, whereas climate describes patterns and averages observed over longer periods in a region. The concepts differ mainly in timescale and pattern, not indoor versus outdoor location or unrelated Earth materials. The observed evidence is consistent with that scientific mechanism.

91. C — As Earth rotates, different locations alternately face toward and away from the Sun, producing the daily pattern of daylight and darkness. Earth's revolution is associated with the yearly orbital cycle, while lunar distance and cloud cover can affect observations but do not create the global day-night cycle. The observed evidence is consistent with that scientific mechanism.

92. A — The Sun illuminates roughly half of the Moon, while the Moon's changing orbital position alters how much of that lit half is visible from Earth. This changing geometry produces the familiar phases. Earth's shadow is responsible for lunar eclipses, not ordinary phases, and the Moon does not generate different amounts of visible light.

93. C — Erosion moves weathered material from one location to another, while deposition occurs when transported sediment is laid down. A stream can therefore erode sediment from a hillside and deposit it downstream as water speed changes. The other process pairs concern water phase changes or biological energy processes. The observed evidence is consistent with that scientific mechanism.

94. D — Tectonic plates interact at boundaries through collision, separation, or sliding. Stress can accumulate in rocks until sudden movement along faults releases energy as seismic waves. Plate boundaries therefore often coincide with earthquake activity. The alternatives contradict the mechanical causes of earthquakes or invoke an unrelated surface energy source. The observed evidence is consistent with that scientific mechanism.

95. A — Keeping other conditions constant controls potential confounding variables, making it easier to attribute differences in plant height to the fertilizer amount being changed. Controlled variables do not guarantee identical outcomes or remove the need for measurement. The independent variable must vary

across groups rather than remain identical. The observed evidence is consistent with that scientific mechanism.

96. B — Engineering design is often iterative: designers create a solution, test it, analyze evidence about strengths and weaknesses, and revise the design. Recording where the bridge bends provides data for improvement. Avoiding measurement or accepting the first attempt removes the evidence-based revision that defines this process. The observed evidence is consistent with that scientific mechanism.

97. D — Cardinal directions describe relative location on maps. If the school lies east of the library, traveling from the library to the school means moving east. North and south indicate different directions, and west would move in the opposite direction from the school's stated location. Context matters because related social-studies terms can refer to different institutions, causes, or consequences.

98. C — Rivers often supported settlement by supplying water, transportation, and floodplain soils useful for agriculture. These advantages could encourage population growth and trade. Rivers did not eliminate food production or conflict, nor did they create identical climates. Geographic features influence human settlement by shaping available resources and movement. That interpretation best matches the historical or civic context.

99. A — When demand rises while supply remains fixed, more buyers compete for the same limited quantity, creating upward pressure on price in a basic market model. Scarcity is not automatically eliminated, demand does not necessarily fall to zero, and consumers continue to make choices among alternatives. The distractors describe different civic, economic, geographic, or historical relationships than the one presented.

100. B — Opportunity cost is the value of the next-best alternative forgone when a choice is made. By working, the student gives up the festival experience that would otherwise have been chosen. The wages are a benefit of working, while every possible activity and all future income are not the specific next-best alternative.

101. C — A presidential veto is a constitutional power of the executive branch that can check legislation passed by Congress. It illustrates how separate branches have powers that limit one another. The other examples involve local government, private business, or school governance rather than interaction among federal branches. The distractors describe different civic, economic, geographic, or historical relationships than the one presented.

102. A — The example illustrates federalism because governmental authority is divided and shared between national and state levels within one constitutional system. Different levels have distinct and sometimes overlapping responsibilities. A single local body holding all power or private organizations making public law would not represent this constitutional distribution of governmental authority.

103. B — Peaceful criticism of public policy is expression protected by the First Amendment's freedom of speech. The amendment also protects religion, press, assembly, and petition, but it does not guarantee housing or government employment, and it does not require citizens to join an official religion. The scenario directly concerns protected expression.

104. D — A photograph created at the factory opening is direct evidence from the time of the event, making it a primary source for studying what the scene looked like. Later textbooks, encyclopedia entries, and documentaries interpret or synthesize earlier evidence. They can be useful, but they are secondary sources for this question.

105. C — The historian is examining whether one development helped produce another, which is cause-and-effect analysis. Chronological sequence alone can show which event happened first, but causal reasoning asks about the relationship between events. Alphabetizing, map projection, and musical interpretation do not address the historical question being posed. The distractors describe different civic, economic, geographic, or historical relationships than the one presented.

106. A — The Declaration of Independence announced the colonies' separation from Great Britain and set out reasons for that decision in 1776. The Articles of Confederation created an early national government, the Constitution established the later federal framework, and the Bill of Rights consists of amendments protecting individual liberties. That interpretation best matches the historical or civic context.

107. B — The Articles created a weak central structure with serious limitations, prompting efforts to design a more effective national government. The Constitution strengthened federal capacity while distributing authority among branches and preserving state roles. It did not abolish states, establish a hereditary monarchy, or remove national responsibilities from Congress. That interpretation best matches the historical or civic context.

108. A — The Nineteenth Amendment states that the right to vote cannot be denied or abridged by the United States or a state on account of sex. The First addresses core civil liberties, the Tenth concerns reserved powers, and the Twenty-Second limits presidential terms. The distractors describe different civic, economic, geographic, or historical relationships than the one presented.

109. D — Scarce jobs can push people away from one place, while employment opportunities can pull them toward another. Push and pull factors help explain migration decisions. Absolute location uses coordinates, branches of government describe political organization, and tariffs and quotas are trade policies rather than migration motives. Context matters because related social-studies terms can refer to different institutions, causes, or consequences.

110. D — Canals and railroads reduced the difficulty and cost of moving people and goods, linking farms, factories, resources, and markets across greater distances. Improved transportation supported trade and urban growth. The alternatives reverse these effects by claiming transportation networks blocked commerce, material movement, or city development. The distractors describe different civic, economic, geographic, or historical relationships than the one presented.

111. B — Attending a public hearing and submitting comments are direct ways residents can participate in local government and influence public decisions. Individual citizens do not personally revise federal court rulings, issue official national currency, or create states by declaration. Civic participation includes voting, communicating with officials, attending meetings, and organized advocacy.

112. C — Comparative advantage is based on relative opportunity costs. When trading partners specialize in goods they can produce at lower opportunity cost, total production can increase and exchange can make both better off. Judicial review, absolute location, and church-state relations concern legal, geographic, or civic concepts rather than gains from specialization and trade.

113. B — Complementary colors sit opposite one another on a traditional color wheel and create strong contrast when placed together. Blue and orange form such a pair. The other choices are neighboring color combinations and therefore produce a different visual relationship rather than complementary contrast. This distinction separates a generally related practice from the one that directly addresses the stated objective.

114. A — Allegro is a tempo indication associated with a fast or lively pace. It concerns speed, not dynamics, rests after every note, or absence of pitch. Reading musical notation requires distinguishing tempo markings from symbols that control loudness, articulation, rhythm, and other performance features. This distinction separates a generally related practice from the one that directly addresses the stated objective.

115. C — Blocking refers to actors' planned movement and positioning in a performance space. It helps communicate relationships, focus attention, and organize stage action. Scenic painting and instrument tuning are other production tasks, while research footnotes belong to academic writing rather than stage movement. The best response connects the practical goal to the technique or health practice most directly suited to it.

116. D — In dance, level describes how high or low the body moves in space, such as low, middle, or high. Performing the same movement near the floor and then high in space directly varies level. Meter and pitch are musical concepts, while perspective is more commonly associated with visual representation. The choice directly supports the stated practical or artistic objective.

117. D — FITT organizes exercise variables as frequency, intensity, time, and type. Time refers to how long an activity or exercise session lasts. Room temperature, talent, and team size may matter in some settings but are not the exercise-planning variable represented by the first T in FITT. The choice directly supports the stated practical or artistic objective.

118. A — The meal includes foods from several major groups, including protein, grains, vegetables, fruit, and dairy, providing a broader range of nutrients than the single-category snack choices. Balanced eating patterns emphasize variety and nutrient-dense foods rather than relying primarily on foods high in added sugars or saturated fat. The choice directly supports the stated practical or artistic objective.

119. B — Refrigerator thawing keeps meat cold while it defrosts, limiting time in temperatures that support rapid bacterial growth. Leaving meat on a counter, in sunlight, or beside a heat source can warm the exterior while the inside remains frozen, increasing food-safety risk before cooking. This distinction separates a generally related practice from the one that directly addresses the stated objective.

120. C — The strongest bullet uses a clear action verb, names a specific responsibility, and describes a concrete result, giving an employer evidence about the student's contribution. The vague alternatives

provide little information about duties, skills, or outcomes. Effective resumes communicate relevant experience concisely and specifically. This distinction separates a generally related practice from the one that directly addresses the stated objective.