

## Grade 8 Science Exam Review

### Matching

*Match each of the following terms with the most appropriate definition, explanation, or description given below.*

- |             |                 |
|-------------|-----------------|
| a. density  | d. run-off      |
| b. glacier  | e. ground water |
| c. salinity |                 |

- \_\_\_ 1. the amount of salt dissolved in a specific amount of water
- \_\_\_ 2. the amount of mass in a certain volume
- \_\_\_ 3. precipitation that falls on land and sinks out of sight and remains in cracks underground
- \_\_\_ 4. precipitation that falls to land and flows into streams and rivers and eventually into the ocean
- \_\_\_ 5. a large compressed mass of ice and snow that does not melt away in summer

*Match each of the following terms with the most appropriate definition, explanation, or description given below.*

- |                |                   |
|----------------|-------------------|
| a. atmosphere  | d. lithosphere    |
| b. hydrosphere | e. drainage basin |
| c. gravity     |                   |

- \_\_\_ 6. the area of land from which water drains into a certain body of water
- \_\_\_ 7. the solid rocky ground of the Earth's crust
- \_\_\_ 8. the air surrounding the planet
- \_\_\_ 9. the force that pulls all masses toward the centre of Earth
- \_\_\_ 10. all the water on Earth

*Match each of the following terms to the best description/definition/explanation provided.*

- |                      |                      |
|----------------------|----------------------|
| a. abyssal plain     | c. continental slope |
| b. continental shelf | d. ocean basin       |

- \_\_\_ 11. the wide, deep depression in Earth's surface that contains an ocean
- \_\_\_ 12. the flat area of a continent that extends from the shore into the ocean
- \_\_\_ 13. the area that drops off rapidly into the deeper parts of the ocean
- \_\_\_ 14. the wide open region of the ocean between the continents and the mid-ocean ridge

*Match each of the following terms to the best description/definition/explanation provided.*

- |                    |              |
|--------------------|--------------|
| a. Coriolis effect | d. swells    |
| b. density current | e. tides     |
| c. ocean current   | f. upwelling |

- \_\_\_ 15. a large amount of ocean water moving like a river in the ocean

- \_\_\_ 16. the daily cycle of the rise and fall of the oceans
- \_\_\_ 17. the sinking and movement of a section of water that is denser than the surrounding water
- \_\_\_ 18. the change of the direction of swirling water as a result of the spin of Earth
- \_\_\_ 19. the rising of water from the deep
- \_\_\_ 20. large smooth rolling waves that form in the open ocean

*Match each of the following terms to the best description/definition/explanation provided.*

- a. bays
- b. crest
- c. headlands
- d. ocean ridge
- e. trough

- \_\_\_ 21. the parts of the coastline that project farther out into the ocean than the land next to them
- \_\_\_ 22. the lowest part of a wave
- \_\_\_ 23. the highest part of a wave
- \_\_\_ 24. the indented areas of coastland that are in between headlands
- \_\_\_ 25. undersea mountain chain

*Match each of the following terms to the best description/definition/explanation provided.*

- a. climate
- b. convection
- c. heat capacity
- d. weather

- \_\_\_ 26. the transfer of heat by means of the flow of a substance such as air or water
- \_\_\_ 27. the condition of the atmosphere at any particular time or over a short period, such as a day
- \_\_\_ 28. the atmospheric conditions averaged over a long period, such as 30 years
- \_\_\_ 29. a measure of how long it takes a material to heat up or cool down

*Match each of the following terms to the best description/definition/explanation provided.*

- a. estuary
- b. plankton
- c. bioindicator species
- d. bioluminescence

- \_\_\_ 30. an area of water that forms where a river enters the ocean
- \_\_\_ 31. small or microscopic organisms that float in fresh water and salt water
- \_\_\_ 32. light produced by chemical reactions in the bodies of some marine organisms
- \_\_\_ 33. organisms that are sensitive to pollution or other environmental changes

*Match each of the following terms to the best description/definition/explanation provided.*

- a. turbid
- b. acid precipitation
- c. aquaculture
- d. invasive species
- e. overfishing
- f. pH

- \_\_\_ 34. the scale that measures the strength of an acid
- \_\_\_ 35. a way to describe cloudy water

- \_\_\_ 36. when more of a particular species of fish are removed from an area than can be replaced by reproduction
- \_\_\_ 37. a new or foreign species that is introduced into a food web
- \_\_\_ 38. rainfall that carries acid formed by nitrogen and sulfur oxides
- \_\_\_ 39. another name for fish farming

*Match the correct term to each of the following descriptions.*

- a. reflection
- b. refraction
- c. spectrum
- d. medium

- \_\_\_ 40. the bending of light as it passes from one material to another
- \_\_\_ 41. the matter through which a wave travels
- \_\_\_ 42. the range of colours or frequencies of visible light
- \_\_\_ 43. occurs when a light wave strikes an object and bounces off

*Match the correct term to each of the following descriptions.*

- a. wavelength
- b. amplitude
- c. frequency
- d. crest
- e. trough

- \_\_\_ 44. the high part of a wave
- \_\_\_ 45. the number of cycles completed by a vibrating object in a unit of time
- \_\_\_ 46. the low part of a wave
- \_\_\_ 47. the distance from crest to crest, or from trough to trough
- \_\_\_ 48. the height of the crest, or depth of the trough from rest position

*Match the correct term to each of the following descriptions.*

- a. light
- b. additive primary colours
- c. electromagnetic spectrum
- d. secondary colours

- \_\_\_ 49. the colours red, green, and blue
- \_\_\_ 50. visible light energy and all the invisible forms of radiant energy
- \_\_\_ 51. the colours yellow, cyan, and magenta
- \_\_\_ 52. a form of energy that you can detect with your eyes

*Match the correct term to each of the following descriptions.*

- a. microwaves
- b. X rays
- c. ultraviolet radiation
- d. infrared radiation
- e. gamma rays

- \_\_\_ 53. have the shortest frequency and highest energy of all the radiant waves; are useful in destroying cancerous cells
- \_\_\_ 54. can result in tanning; can damage the cornea of the eye

- \_\_\_ 55. heat radiation; useful in motion sensors and burglar alarms
- \_\_\_ 56. penetrating and energetic waves that can easily pass through skin and muscle
- \_\_\_ 57. absorbed by water particles in food causing them to vibrate faster and become hot

*Match the correct term to each description. Use each term only once.*

- a. plane mirror
- b. Normal
- c. virtual image
- d. rectilinear propagation

- \_\_\_ 58. created where extended rays meet
- \_\_\_ 59. flat reflecting surface
- \_\_\_ 60. movement of light in straight lines
- \_\_\_ 61. line perpendicular to a reflecting surface

*Match the correct term to each description. Use each term only once.*

- a. angle of reflection
- b. incident ray
- c. angle of incidence
- d. plane mirror
- e. reflected ray

- \_\_\_ 62. comes from the light source and strikes the reflecting surface
- \_\_\_ 63. comes from a polished surface and is used to form an image
- \_\_\_ 64. found between the incident ray and the normal
- \_\_\_ 65. found between the reflecting ray and the normal
- \_\_\_ 66. reflects light uniformly

*Match the correct mirror type to each characteristic. Each term can be used more than once.*

- a. concave mirror
- b. convex mirror

- \_\_\_ 67. when held far away from its surface, objects appear smaller and upside down
- \_\_\_ 68. when light rays reflect off its surface, they diverge
- \_\_\_ 69. used as safety mirrors
- \_\_\_ 70. used in cars as rearview mirrors
- \_\_\_ 71. when held less than one focal length from its surface, objects appear larger and upright
- \_\_\_ 72. when held at any distance from its surface, objects appear smaller and upright

*Match the type of reflection to each situation. Each term can be used more than once.*

- a. diffuse reflection
- b. specular reflection

- \_\_\_ 73. Light is shone on a plane mirror.
- \_\_\_ 74. Light is shone on a ceiling with a rough surface.
- \_\_\_ 75. Light is shone on a smooth piece of aluminum foil.
- \_\_\_ 76. Light is shone on a crumpled piece of aluminum foil.

\_\_\_ 77. Light is shone on a calm lake at night.

*Match the device with the corresponding name.*

a.



d.



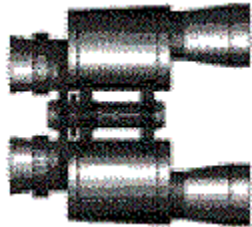
b.



e.



c.



\_\_\_ 78. telescope

\_\_\_ 79. camera

\_\_\_ 80. magnifying glass

\_\_\_ 81. microscope

\_\_\_ 82. binoculars

*Match each numbered phrase (the beginning of a sentence) with a lettered phrase (the end of that sentence) to indicate how light refracts through a lens. Each lettered phrase (a – d) can be used more than once.*

a. travel straight through.

c. refract and run parallel to the principal axis.

b. refract such that its extension passes through the focal point on the same side as the object.

d. refract and pass through the focal point on the opposite side.

\_\_\_ 83. In a convex lens, a ray parallel to the principal axis will...

\_\_\_ 84. In a convex lens, a ray passing through the focal point on the same side of the lens as the object will...

\_\_\_ 85. In a convex lens, a ray traveling through the optical centre will...

\_\_\_ 86. In a concave lens, a ray parallel to the principal axis will...

\_\_\_ 87. In a concave lens, a ray toward the focal point on the opposite side of the lens will...

\_\_\_ 88. In a concave lens, a ray traveling through the optical centre will...

*Match the correct term to each of the following characteristics.*

- |              |                      |
|--------------|----------------------|
| a. flow rate | d. internal friction |
| b. viscosity | e. chilling          |
| c. melting   |                      |

\_\_\_ 89. a fluid's resistance to flow

\_\_\_ 90. used to decrease the viscosity of a liquid

\_\_\_ 91. the action between the particles of a fluid that causes viscosity

\_\_\_ 92. used to estimate the viscosity of a liquid

\_\_\_ 93. used to increase the viscosity of a liquid

*Match each description with the correct unit of measurement.*

- |                      |                    |
|----------------------|--------------------|
| a. mL                | d. g               |
| b. g/cm <sup>3</sup> | e. cm <sup>3</sup> |
| c. g/mL              |                    |

\_\_\_ 94. density of a solid

\_\_\_ 95. volume of a liquid

\_\_\_ 96. density of a liquid

\_\_\_ 97. mass

\_\_\_ 98. volume of a solid

*Match each description with the correct definition.*

- |                 |                         |
|-----------------|-------------------------|
| a. displacement | d. mass-to-volume ratio |
| b. density      | e. volume               |
| c. mass         |                         |

\_\_\_ 99. the mass of an object divided by its volume

\_\_\_ 100. the amount of space taken up by an object or substance

\_\_\_ 101. the amount of matter an object has

\_\_\_ 102. technique used to measure the volume of an irregularly shaped object

\_\_\_ 103. the amount of mass in certain unit volume of a substance

*Match the correct term to each of the following characteristics.*

- |                             |                 |
|-----------------------------|-----------------|
| a. neutral buoyancy         | e. swim bladder |
| b. average density          | f. pascal       |
| c. hydraulic multiplication | g. density      |
| d. Newton                   | h. ballast tank |

\_\_\_ 104. can be lowered for a person by wearing a life jacket

\_\_\_ 105. part of the depth-control structure of a submarine

- \_\_\_ 106. unit of measure for buoyant force
- \_\_\_ 107. organ containing a mixture of air and water
- \_\_\_ 108. occurs when force of gravity and buoyant force are equal

*Match the correct term to each of the following actions.*

- a. constant
- b. hydraulic system
- c. incompressible
- d. liquid
- e. gas

- \_\_\_ 109. transmits applied force through a liquid to move something
- \_\_\_ 110. state of matter used in pneumatic systems
- \_\_\_ 111. describes pressure in a hydraulic system
- \_\_\_ 112. a characteristic of liquids that makes them effective in hydraulic systems
- \_\_\_ 113. state of matter used in hydraulic systems

*Match the correct term to each of the following actions.*

- a. air pressure
- b. water pressure
- c. pneumatic brakes
- d. compressibility
- e. incompressibility
- f. air bag

- \_\_\_ 114. used by rescue workers to lift a vehicle
- \_\_\_ 115. builds up in compressors
- \_\_\_ 116. used by heavy trucks to stop quickly and safely
- \_\_\_ 117. property of gas that is key to pneumatics

*Match the correct term to each of the following descriptions.*

- a. water pressure
- b. air pressure
- c. pneumatics
- d. hydraulics
- e. fluid particles

- \_\_\_ 118. changes with altitude
- \_\_\_ 119. the study of pressure in liquids
- \_\_\_ 120. moving in all directions at all times
- \_\_\_ 121. changes with depth
- \_\_\_ 122. the study of pressure in gases

*Match the correct term to each of the following descriptions.*

- a. cell
- b. multicellular
- c. organism
- d. unicellular

- \_\_\_ 123. the basic unit of life
- \_\_\_ 124. a living thing

- \_\_\_ 125. a living thing that is made up of many cells  
\_\_\_ 126. a living thing that is made of only one cell

*Match the correct term to each of the following descriptions.*

- |                 |             |
|-----------------|-------------|
| a. energy       | d. response |
| b. growth       | e. stimulus |
| c. reproduction | f. waste    |

- \_\_\_ 127. a reaction to something in an organism's environment  
\_\_\_ 128. something that is eliminated from an organism because it is not needed  
\_\_\_ 129. something that is needed by an organism to carry out life's activities  
\_\_\_ 130. the creation of new members of a group of organisms  
\_\_\_ 131. something that causes an organism to respond or react  
\_\_\_ 132. an increase in an organism's size

*Match the correct term to each of the following descriptions.*

- |                |                  |
|----------------|------------------|
| a. chloroplast | d. mitochondrion |
| b. nucleus     | e. cell membrane |
| c. vacuole     |                  |

- \_\_\_ 133. fluid-filled storage area  
\_\_\_ 134. contains the green pigment "chlorophyll"  
\_\_\_ 135. controls all of the cell's activities  
\_\_\_ 136. surrounds the cell and controls flow of substances  
\_\_\_ 137. produces energy for the cell

*Match the correct lettered description to the terms below. Each lettered description can be used more than once.*

- |                               |   |
|-------------------------------|---|
| a. found in plant cells only  | c. found in both plant and animal cells |
| b. found in animal cells only |   |

- \_\_\_ 138. nucleus  
\_\_\_ 139. chloroplast  
\_\_\_ 140. mitochondrion  
\_\_\_ 141. cell membrane  
\_\_\_ 142. cell wall

*Match the correct term to each of the following descriptions.*

- |              |                         |
|--------------|-------------------------|
| a. stage     | d. fine-adjustment knob |
| b. tube      | e. eyepiece lens        |
| c. diaphragm |                         |

- \_\_\_ 143. Holds the eyepiece and objective lenses at the proper working distance from each other



- \_\_\_ 144. Controls amount of light that reaches the object being viewed
- \_\_\_ 145. Used with medium- and high-power objective lenses to bring the object into sharper focus
- \_\_\_ 146. Supports the slide
- \_\_\_ 147. Viewer looks through this part, which usually magnifies the object by 10x

## Grade 8 Science Exam Review Answer Section

### MATCHING

1. ANS: C                      PTS: 1                      TOP: Sources of Fresh Water  
KEY: salinity                MSC: Level 1
2. ANS: A                      PTS: 1                      TOP: Sources of Fresh Water  
KEY: density | mass | volume                MSC: Level 2
3. ANS: E                      PTS: 1                      TOP: Sources of Fresh Water  
KEY: ground water                                MSC: Level 2
4. ANS: D                      PTS: 1                      TOP: Sources of Fresh Water  
KEY: run-off                                        MSC: Level 2
5. ANS: B                      PTS: 1                      TOP: Sources of Fresh Water  
KEY: glacier | ice                                MSC: Level 2
  
6. ANS: E                      PTS: 1                      TOP: Sources of Fresh Water  
KEY: drainage basin                                MSC: Level 1
7. ANS: D                      PTS: 1                      TOP: Water Cycle's Vital Role  
KEY: water cycle                                MSC: Level 2
8. ANS: A                      PTS: 1                      TOP: Water Cycle's Vital Role  
KEY: water cycle                                MSC: Level 2
9. ANS: C                      PTS: 1                      TOP: Water Cycle's Vital Role  
KEY: gravity                                        MSC: Level 2
10. ANS: B                      PTS: 1                      TOP: Water Cycle's Vital Role  
KEY: water cycle                                MSC: Level 2
  
11. ANS: D                      PTS: 1                      TOP: Continental Margins  
KEY: ocean basin                                MSC: Level 2
12. ANS: B                      PTS: 1                      TOP: Continental Margins  
KEY: continental shelf                                MSC: Level 2
13. ANS: C                      PTS: 1                      TOP: Continental Margins  
KEY: continental slope                                MSC: Level 2
14. ANS: A                      PTS: 1                      TOP: Continental Margins  
KEY: abyssal plain                                MSC: Level 2
  
15. ANS: C                      PTS: 1                      TOP: Ocean Currents  
KEY: current                                        MSC: Level 1
16. ANS: E                      PTS: 1                      TOP: Tides                      KEY: tide  
MSC: Level 1
17. ANS: B                      PTS: 1                      TOP: Ocean Currents  
KEY: density current                                MSC: Level 2
18. ANS: A                      PTS: 1                      TOP: Ocean Currents  
KEY: Coriolis effect                                MSC: Level 2
19. ANS: F                      PTS: 1                      TOP: Ocean Currents  
KEY: upwelling                                        MSC: Level 2
20. ANS: D                      PTS: 1                      TOP: Waves and Shorelines

- KEY: swells            MSC: Level 2
21. ANS: C            PTS: 1            TOP: Interactions at Shorelines  
KEY: wave            MSC: Level 1
22. ANS: E            PTS: 1            TOP: Ocean Waves  
KEY: wave            MSC: Level 1
23. ANS: B            PTS: 1            TOP: Ocean Waves  
KEY: wave            MSC: Level 1
24. ANS: A            PTS: 1            TOP: Interactions at Shorelines  
KEY: wave            MSC: Level 1
25. ANS: D            PTS: 1            TOP: Continental Margins  
KEY: basin            MSC: Level 1
26. ANS: B            PTS: 1            TOP: Oceans, Weather, and Climate  
KEY: convection    MSC: Level 1
27. ANS: D            PTS: 1            TOP: Oceans, Weather, and Climate  
KEY: weather        MSC: Level 1
28. ANS: A            PTS: 1            TOP: Oceans, Weather, and Climate  
KEY: climate        MSC: Level 1
29. ANS: C            PTS: 1            TOP: Oceans, Weather, and Climate  
KEY: heat capacity    MSC: Level 1
30. ANS: A            PTS: 1            TOP: Water Systems and Species Distributions  
KEY: freshwater environments    MSC: Level 1
31. ANS: B            PTS: 1            TOP: Water Systems and Species Distributions  
KEY: marine environments    MSC: Level 1
32. ANS: D            PTS: 1            TOP: Water Systems and Species Distributions  
KEY: freshwater environments    MSC: Level 1
33. ANS: C            PTS: 1            TOP: Water Systems and Species Distributions  
KEY: marine environments    MSC: Level 1
34. ANS: F            PTS: 1            TOP: Water Systems and Species Distributions  
KEY: abiotic factors    MSC: Level 1
35. ANS: A            PTS: 1            TOP: Water Systems and Species Distributions  
KEY: abiotic factors    MSC: Level 1
36. ANS: E            PTS: 1            TOP: Human Impacts on Marine Systems  
KEY: overfishing    MSC: Level 1
37. ANS: D            PTS: 1            TOP: Human Impacts on Marine Systems  
KEY: offshore oil industry | impacts    MSC: Level 1
38. ANS: B            PTS: 1            TOP: Water Systems and Species Distributions  
KEY: abiotic factors    MSC: Level 1
39. ANS: C            PTS: 1            TOP: Human Impacts on Marine Systems  
KEY: aquaculture    MSC: Level 1
40. ANS: B            PTS: 1            TOP: Properties of Visible Light  
KEY: reflection        MSC: Level 2
41. ANS: D            PTS: 1            TOP: Properties of Visible Light  
KEY: refraction        MSC: Level 2
42. ANS: C            PTS: 1            TOP: Electromagnetic Radiation and Dispersion

- KEY: spectrum      MSC: Level 2
43. ANS: A            PTS: 1            TOP: Properties of Visible Light  
KEY: wave model    MSC: Level 2
44. ANS: D            PTS: 1            TOP: Electromagnetic Radiation and Dispersion  
KEY: crest            MSC: Level 2
45. ANS: C            PTS: 1            TOP: Electromagnetic Radiation and Dispersion  
KEY: frequency      MSC: Level 2
46. ANS: E            PTS: 1            TOP: Electromagnetic Radiation and Dispersion  
KEY: trough          MSC: Level 2
47. ANS: A            PTS: 1            TOP: Electromagnetic Radiation and Dispersion  
KEY: wavelength    MSC: Level 2
48. ANS: B            PTS: 1            TOP: Electromagnetic Radiation and Dispersion  
KEY: amplitude      MSC: Level 2
49. ANS: B            PTS: 1            TOP: Electromagnetic Radiation and Dispersion  
KEY: primary colours    MSC: Level 1
50. ANS: C            PTS: 1            TOP: Electromagnetic Radiation and Dispersion  
KEY: electromagnetic spectrum    MSC: Level 1
51. ANS: D            PTS: 1            TOP: Electromagnetic Radiation and Dispersion  
KEY: secondary colours    MSC: Level 1
52. ANS: A            PTS: 1            TOP: Properties of Visible Light  
KEY: radiant energy    MSC: Level 1
53. ANS: E            PTS: 1            TOP: The Electromagnetic Spectrum  
KEY: gamma rays      MSC: Level 3
54. ANS: C            PTS: 1            TOP: The Electromagnetic Spectrum  
KEY: ultraviolet      MSC: Level 3
55. ANS: D            PTS: 1            TOP: The Electromagnetic Spectrum  
KEY: infrared radiation    MSC: Level 3
56. ANS: B            PTS: 1            TOP: The Electromagnetic Spectrum  
KEY: X rays            MSC: Level 3
57. ANS: A            PTS: 1            TOP: The Electromagnetic Spectrum  
KEY: microwave      MSC: Level 3
58. ANS: C            PTS: 1            TOP: Real and Virtual Images  
KEY: virtual image      MSC: Level 1
59. ANS: A            PTS: 1            TOP: Types of Mirrors  
KEY: plane mirror    MSC: Level 1
60. ANS: D            PTS: 1            TOP: Properties of Visible Light  
KEY: rectilinear propagation    MSC: Level 1
61. ANS: B            PTS: 1            TOP: Reflection      KEY: normal  
MSC: Level 1
62. ANS: B            PTS: 1            TOP: Reflection      KEY: incident ray  
MSC: Level 1
63. ANS: E            PTS: 1            TOP: Reflection      KEY: reflected ray  
MSC: Level 1
64. ANS: C            PTS: 1            TOP: Reflection      KEY: angle of incidence

- MSC: Level 1
65. ANS: A                   PTS: 1                   TOP: Reflection    KEY: angle of reflection  
MSC: Level 1
66. ANS: D                   PTS: 1                   TOP: Types of Mirrors  
KEY: plane mirror   MSC: Level 1
67. ANS: A                   PTS: 1                   TOP: Types of Mirrors  
KEY: concave mirror   MSC: Level 2
68. ANS: B                   PTS: 1                   TOP: Types of Mirrors  
KEY: convex mirror    MSC: Level 2
69. ANS: B                   PTS: 1                   TOP: Types of Mirrors  
KEY: convex mirror    MSC: Level 1
70. ANS: B                   PTS: 1                   TOP: Types of Mirrors  
KEY: convex mirror    MSC: Level 2
71. ANS: A                   PTS: 1                   TOP: Real and Virtual Images  
KEY: concave mirror   MSC: Level 3
72. ANS: B                   PTS: 1                   TOP: Types of Mirrors  
KEY: convex mirror    MSC: Level 2
73. ANS: B                   PTS: 1                   TOP: Reflection    KEY: specular reflection  
MSC: Level 1
74. ANS: A                   PTS: 1                   TOP: Reflection    KEY: diffuse reflection  
MSC: Level 1
75. ANS: B                   PTS: 1                   TOP: Reflection    KEY: specular reflection  
MSC: Level 1
76. ANS: A                   PTS: 1                   TOP: Reflection    KEY: diffuse reflection  
MSC: Level 1
77. ANS: B                   PTS: 1                   TOP: Reflection    KEY: specular reflection  
MSC: Level 1
78. ANS: E                   PTS: 1                   TOP: Development of Optical Technologies  
KEY: telescope        MSC: Level 1
79. ANS: B                   PTS: 1                   TOP: Development of Optical Technologies  
KEY: camera           MSC: Level 1
80. ANS: D                   PTS: 1                   TOP: Types of Lenses  
KEY: magnifying glass   MSC: Level 1
81. ANS: A                   PTS: 1                   TOP: Development of Optical Technologies  
KEY: microscope       MSC: Level 1
82. ANS: C                   PTS: 1                   TOP: Development of Optical Technologies  
KEY: binoculars       MSC: Level 1
83. ANS: D                   PTS: 1                   TOP: Lenses and Images  
KEY: convex lens       MSC: Level 1
84. ANS: C                   PTS: 1                   TOP: Lenses and Images  
KEY: convex lens       MSC: Level 1
85. ANS: A                   PTS: 1                   TOP: Lenses and Images  
KEY: convex lens       MSC: Level 1
86. ANS: B                   PTS: 1                   TOP: Lenses and Images  
KEY: concave lens      MSC: Level 1

87. ANS: C                   PTS: 1                   TOP: Lenses and Images  
KEY: concave lens   MSC: Level 1
88. ANS: A                   PTS: 1                   TOP: Lenses and Images  
KEY: concave lens   MSC: Level 1
89. ANS: B                   PTS: 1                   TOP: Fluids and Viscosity  
KEY: viscosity       MSC: Level 1
90. ANS: C                   PTS: 1                   TOP: Factors that Affect Viscosity  
KEY: viscosity | temperature   MSC: Level 2
91. ANS: D                   PTS: 1                   TOP: Fluids and Viscosity  
KEY: viscosity | friction       MSC: Level 2
92. ANS: A                   PTS: 1                   TOP: Comparing Viscosities  
KEY: flow rate       MSC: Level 2
93. ANS: E                   PTS: 1                   TOP: Factors that Affect Viscosity  
KEY: viscosity | temperature   MSC: Level 2
94. ANS: B                   PTS: 1                   TOP: Defining Density  
KEY: density of a solid | units   MSC: Level 1
95. ANS: A                   PTS: 1                   TOP: Defining Density  
KEY: volume of a liquid | units   MSC: Level 1
96. ANS: C                   PTS: 1                   TOP: Defining Density  
KEY: density of liquid | units   MSC: Level 1
97. ANS: D                   PTS: 1                   TOP: Defining Density  
KEY: mass | units    MSC: Level 1
98. ANS: E                   PTS: 1                   TOP: Defining Density  
KEY: volume of a solid | units   MSC: Level 1
99. ANS: D                   PTS: 1                   TOP: Defining Density  
KEY: density         MSC: Level 1
100. ANS: E                   PTS: 1                   TOP: Defining Density  
KEY: volume         MSC: Level 1
101. ANS: C                   PTS: 1                   TOP: Defining Density  
KEY: mass            MSC: Level 1
102. ANS: A                   PTS: 1                   TOP: Determining Density  
KEY: displacement | volume       MSC: Level 1
103. ANS: B                   PTS: 1                   TOP: Defining Density  
KEY: density         MSC: Level 1
104. ANS: B                   PTS: 1                   TOP: Applications of Buoyancy  
KEY: average density               MSC: Level 1
105. ANS: H                   PTS: 1                   TOP: Applications of Buoyancy  
KEY: submarine | ballast           MSC: Level 1
106. ANS: D                   PTS: 1                   TOP: Balanced and Unbalanced Forces  
KEY: Newton         MSC: Level 1
107. ANS: E                   PTS: 1                   TOP: Applications of Buoyancy  
KEY: swim bladder                 MSC: Level 1
108. ANS: A                   PTS: 1                   TOP: Applications of Buoyancy  
KEY: buoyancy       MSC: Level 1

109. ANS: B PTS: 1 TOP: Pressure, Hydraulics, and Pneumatics  
KEY: hydraulic systems MSC: Level 1
110. ANS: E PTS: 1 TOP: Pressure, Hydraulics, and Pneumatics  
KEY: pneumatic systems MSC: Level 1
111. ANS: A PTS: 1 TOP: Pressure, Hydraulics, and Pneumatics  
KEY: hydraulic systems MSC: Level 1
112. ANS: C PTS: 1 TOP: Pressure, Hydraulics, and Pneumatics  
KEY: hydraulic systems MSC: Level 1
113. ANS: D PTS: 1 TOP: Pressure, Hydraulics, and Pneumatics  
KEY: hydraulic systems MSC: Level 1
114. ANS: F PTS: 1 TOP: Pressure, Hydraulics, and Pneumatics  
KEY: air bag MSC: Level 1
115. ANS: A PTS: 1 TOP: Pressure, Hydraulics, and Pneumatics  
KEY: pressure | compressor MSC: Level 1
116. ANS: C PTS: 1 TOP: Pressure, Hydraulics, and Pneumatics  
KEY: pressure | pneumatics MSC: Level 1
117. ANS: D PTS: 1 TOP: Pressure, Hydraulics, and Pneumatics  
KEY: pneumatics MSC: Level 1
118. ANS: B PTS: 1 TOP: Pressure, Hydraulics, and Pneumatics  
KEY: altitude | pressure MSC: Level 1
119. ANS: D PTS: 1 TOP: Pressure, Hydraulics, and Pneumatics  
KEY: hydraulics MSC: Level 1
120. ANS: E PTS: 1 TOP: Pressure, Hydraulics, and Pneumatics  
KEY: particles | Pascal's law MSC: Level 1
121. ANS: A PTS: 1 TOP: Pressure, Hydraulics, and Pneumatics  
KEY: pressure | water MSC: Level 1
122. ANS: C PTS: 1 TOP: Pressure, Hydraulics, and Pneumatics  
KEY: pneumatics MSC: Level 1
123. ANS: A PTS: 1 TOP: Cells and Living Things  
KEY: cell MSC: Level 1
124. ANS: C PTS: 1 TOP: Cells and Living Things  
KEY: organism MSC: Level 1
125. ANS: B PTS: 1 TOP: Cells and Living Things  
KEY: multicellular MSC: Level 1
126. ANS: D PTS: 1 TOP: Cells and Living Things  
KEY: unicellular MSC: Level 1
127. ANS: D PTS: 1 TOP: Cells and Living Things  
KEY: response | reaction MSC: Level 1
128. ANS: F PTS: 1 TOP: Cells and Living Things  
KEY: waste | elimination MSC: Level 1
129. ANS: A PTS: 1 TOP: Cells and Living Things  
KEY: energy MSC: Level 1
130. ANS: C PTS: 1 TOP: Cells and Living Things  
KEY: reproduction MSC: Level 1
131. ANS: E PTS: 1 TOP: Cells and Living Things

