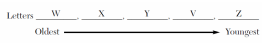
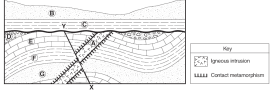
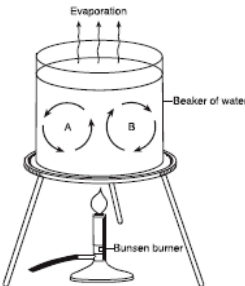
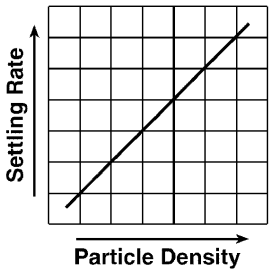
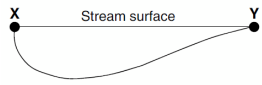


# Answer Key Regents

1. A
2. C
3. D
4. A
5. A
6. D
7. C
8. D
9. A
10. B
11. A
12. C
13. Evidence for inference 1: – A fault is younger than any rock through which it cuts. – Rock unit *G* had to be in place before it was cut by the fault. – law of crosscutting relationships  
Evidence for inference 2: – Rock unit *C* is below rock unit *A*. – Younger sedimentary rock is deposited on top of older sedimentary rock. – law of superposition
14. D
15. A
16. The fault displaced by the intrusion; The fault has cut across the preexisting basalt intrusion.
17. 
18. Devonian Period
19. C
20. B
21. *Elliptocephala* or *Cryptolithus*
22. A
23. 
24. C
25. *Examples:* – convection currents – convection – density currents
26. 
27. B
28. A
29. A
30. C
31. A
32. C
33. B
34. A
35. C
36. A
37. D
38. D
39. B
40. D
41. C
42. B
43. C
44. A
45. B
46. A
47. C
48. A
49. – Point *X* is on the outside of a meander curve. – Stream velocity is greater at point *X*. – More deposition occurs at *Y*.
50. 
51. B
52. 
53. – More deposition has occurred on the inside of the meander. – Stream water moves slower on the inside curve. – More erosion occurs on the outside of a bend. – *B* is located on the outside of a meander.
54. A
55. – stream velocity/speed – gradient/slope of the stream – location within a meander/stream channel – volume/amount of stream discharge – shape of stream channel (straight vs. meandering) – water depth – material found in the stream or along the streambed (vegetation, trees, sediments) – type of bedrock – particle size/shape/density
56. Labrador Current
57. – Warm: Norwegian Current *or* North Atlantic Current – Cool: East Greenland Current
58. – East Australia Current – South Equatorial Current – E. Australia C.
59. Peru Current
60. *Examples:* – Location *C* is located in air that is sinking, compressing, and warming. – Location *C* is on the leeward side of a mountain. – Location *D* is near a large body of water. – Air traveling over the mountains loses its moisture at *D*.

# Answer Key

## Regents

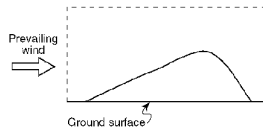
61. —Location *A* is on the windward side of mountains.  
 —Location *A* receives prevailing winds off the ocean.  
 —Location *A* is closer to the ocean.  
 —Location *B* is on the leeward side of a mountain range. — Adiabatic warming occurs in descending air at location *B* after losing most of its moisture on the windward side of a mountain/orographic effect. —The prevailing southwest winds bring moist air to location *A*.

62. Air temperature at *B*: —warmer —higher —increased  
 Relative humidity at *B*: — lower —drier —decreased

63. — Air expands as it moves up the mountain. — The molecules move farther apart as the air rises. — Lower pressure at higher altitudes allows molecules to move farther apart. — The less dense air at higher altitudes allow the air molecules to spread out.

64. rising or cooling air or increased condensation or orographic lifting

- 65. C
- 66. C
- 67. B
- 68. B
- 69. D
- 70. D
- 71. B
- 72. B
- 73. D
- 74. C
- 75. A
- 76. A
- 77. B
- 78. D
- 79. C

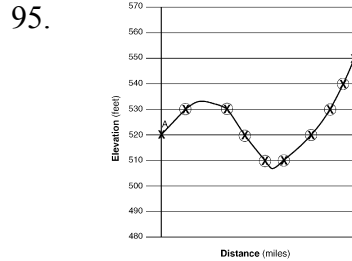
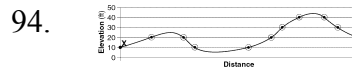
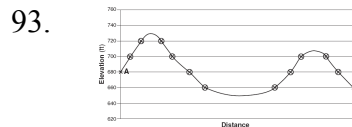


- 80. D
- 81. A
- 82. A
- 83. Rock *A* – shale;  
Rock *B* – gneiss;  
Rock *C* – granite or diorite or pegmatite
- 84. *examples*: — heat and/or pressure — The rock is buried deep underground. — plate collisions — mountain building
- 85. A
- 86. B
- 87. C

88. — Proterozoic — Middle Proterozoic — Late Proterozoic — Precambrian — about 1000 million years — between 1600 and 1000 million years ago

89. The Cretaceous Period

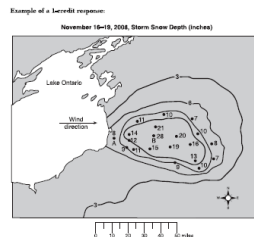
- 90. C
- 91. B
- 92. A



96. A

97. — Contour lines that cross the stream bend in the opposite direction of stream flow. — Contour lines form V-shapes that indicate the uphill or upstream direction. — Contour lines bend upstream.

109.



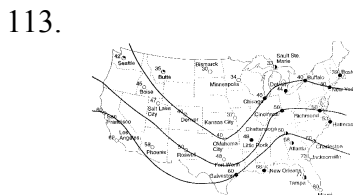
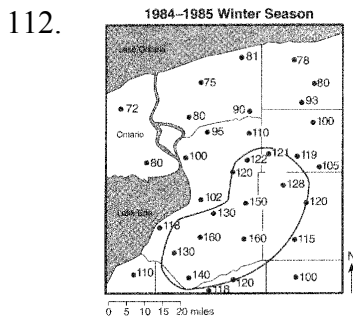
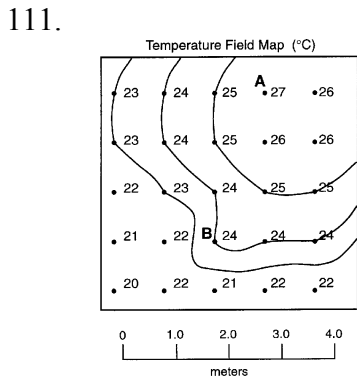
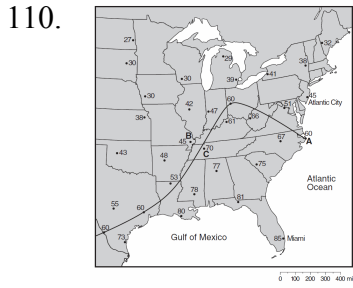
98. — The contour lines bend away from the lake where they cross the stream. — The lines do not go straight across, but curve to the southeast when they cross Woodland Brook. — The contour lines that cross Woodland Brook show the lowest elevation where the brook enters the lake. — law of the Vs/Contour lines make a V shape that points uphill where they cross a stream. — A river flows from a higher elevation to a lower elevation.

- 99. A
- 100. D
- 101. B
- 102. B
- 103. B
- 104. ft/mi (feet/mile)
- 105. A
- 106. B
- 107. B

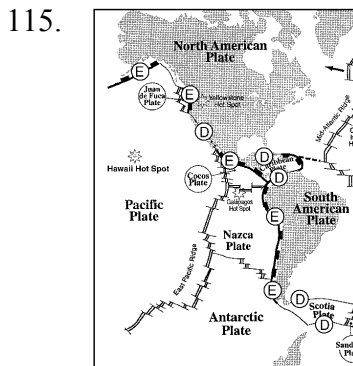
108. *Examples*: — any value from 0.016 to 0.018. — millibars per kilometer — mb/km

# Answer Key

## Regents



114. **D**



116. **C**

117. **D**

118. **C**

119. **B**

120. **A**

121. *Examples:* – tilt of Earth’s axis – parallelism of Earth’s axis – Earth’s revolution around the Sun

122. • The North Pole is tilted toward the Sun in the summer.  
• In summer, the Sun is higher in the sky due to the tilt of Earth’s axis.  
• New York State receives higher angles of insolation in summer when Earth is farthest from the Sun.  
• New York State receives lower angles of insolation in winter when Earth is closest to the Sun.  
• greater duration of insolation

123. **B**

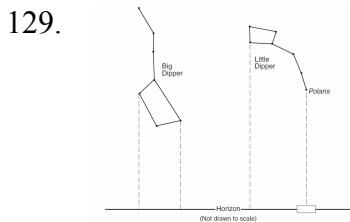
124. **B**

125. **A**

126. **B**

127. The correct placement of Polaris at 50° above the North horizon.

128. 90°



130. 71°

131. — rotation — spinning/turning on its axis

132. **D**

133. **B**

134. **A**

135. **D**

136. **C**

137. – Dunite is more mafic. – It is more mafic. – Dunite does not contain pyroxene. – Dunite contains only olivine, while peridotite contains pyroxene and olivine. – Peridotite has calcium, aluminum, and sodium.

138. **A**

139. **C**

140. Responses include, but are not limited to: *A* is slower cooling than *B*; *B* is faster cooling than *A*; Intrusive rock forms from molten rock that cools slowly; Extrusive rock forms from molten rock that cools rapidly.

141. **C**

142. **A**

143. **B**

144. **A**

145. **C**

146. **C**

147. **C**

148. **D**

149. **A**

150. **A**

151. **D**