

Honors Science (Physics)

Unit 6 Heat and Temperature

Practice Test Answers - Chapter 21

1. T
2. T
3. F
4. F
5. T

6. D
7. D
8. C
9. D
10. A
11. A
12. C
13. B

14. 36 deg C
15. 24 deg C

16. Water expands as it cools from 4 deg to 0 deg Celsius, so it gets less dense and floats. Water has its greatest density at 4 deg Celsius, so it sinks. Since water isn't a great thermal conductor, that 4 degree water stays at the bottom and the temperature of the bottom of the lake stays relatively constant. Cool water at the top of the lake freezes and floats, so lakes freeze from the top down. Since the water at the bottom is fairly constant, fish can live down there all year.

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Practice Test Answers - Chapter 22

1. F
2. T
3. T
4. F
5. T

6. A
7. C
8. D
9. B
10. D
11. C
12. B
13. B
14. A
15. C

16. The greenhouse effect happens when radiant thermal energy enters a medium but cannot easily escape. That causes the temperature to rise. In a florist greenhouse, short wavelength light enters through the glass and is reflected at a longer wavelength. That light gets trapped and reflects back causing the area to be warmer. The Earth's atmosphere works in a similar way.