Name:       Period:       Quiz Date: Wed. Feb. 5th

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| **1. How is the thermal energy of an object different than the temperature of the object?** |  |
| **2. Would a liter of water at 25\*C have the same thermal energy as a cup of water at 25\*C? Explain.** |  |
| **3. How do ice molecules behave as there is an increase in thermal energy until they are steam?** |  |
| **4. What can heat do? (3 things)** |  |
| **5. How do you measure temperature?** |  |
| **6. What are the equivalent temperatures for the following temperatures?** | |  |  |  |  | | --- | --- | --- | --- | |  | Celsius | Fahrenheit | Kelvin | | Body Temp |  |  |  | | Boiling pt. |  |  |  | | Freezing pt. |  |  |  | |
| **7. What is absolute zero?** |  |
| **8. What are the 3 methods of heat transfer? Give examples of each.** |  |
| **9. Through what medium or vacuum can each heat transfer method occur?** |  |
| **10. What is a Heat Source?** |  |
| **11. What is a Heat Sink?** |  |
| **12. What is a Temperature gradient?** |  |
| **13. How is an Insulator different than a Conductor?** |  |
| **14. Why is air a good insulator?** |  |
| **15. Give examples of good conductors and insulators.** |  |
| **16. In what direction does heat always travel?** |  |
| **17. What are examples of EM waves? Which have the highest energy? Lowest energy?** |  |
| **18. Why is radiation harmful to humans?** |  |
| **19. What 3 things affect the strength of the radiation you receive?** |  |
| **20. How is energy passed from particle to particle during conduction?** |  |
| **21. What is a convection current?**  **Where can you find them on earth?** |  |
| **22. Why would heating the top of a pan of water be less likely to form a convection current than heating the bottom of a pan?** |  |
| **23. You allow a cup of hot chocolate to cool, and then you drink exactly half of it. Does the remaining chocolate have more, less, or exactly half the thermal energy of the original cup of chocolate? Explain.** |  |
| **24. Why would an air-filled window be a better insulator than a solid, thick glass window?** |  |
| **25. Explain how ice can cool down a glass of water. How are the particles moving?** |  |