

# Sly Park Video Lesson: Survival by Design Student Handout



Name: \_\_\_\_\_ Date: \_\_\_\_\_

1. Thermal energy means: \_\_\_\_\_
2. Convection means: \_\_\_\_\_
3. In your home or school find three objects that radiate heat. List them below:  
A. \_\_\_\_\_  
B. \_\_\_\_\_  
C. \_\_\_\_\_
3. What happens when you touch a radiant heat source? \_\_\_\_\_
4. Convection currents go where? \_\_\_\_\_
5. What are three things you can use for insulation in the forest? List them below:  
\_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_
6. From what you learned in the video draw a shelter that would keep you warm: (Remember to label it)

My Shelter

7. What design features did you include to prevent radiant heat loss from inside your shelter? \_\_\_\_\_  
\_\_\_\_\_
8. What surfaces require insulation to prevent the transfer of heat away from your body through conduction? \_\_\_\_\_  
\_\_\_\_\_
9. How tall did you build your structure? Why? \_\_\_\_\_  
\_\_\_\_\_

10. What materials did Obsidian and Fern use to insulate their shelter? \_\_\_\_\_

11. Thermal energy is released as radiation from our bodies as we burn \_\_\_\_\_.

12. Thermal energy comes in three forms \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_.

13. Design and build a "Pillow Fort". Use the space below for your blueprint.

My Pillow Fort

14. Test your Pillow Fort (shelter) with a flashlight. Where did you see light escape? \_\_\_\_\_

\_\_\_\_\_

15. Did your door allow heat to escape? \_\_\_\_\_

16. Did you properly insulate your floor? \_\_\_\_\_

17. How could you improve on your design? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_