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

1. Hypothesize which item you think will insulate the wall between the winter wonderland outside and the warmth from the fireplace on the inside. Choose which item you think will work best from this list:

Feathers Brick Sawdust Soil Popcorn Fiberglass

Write your hypothesis in an If…then..because statement.

Hypothesis:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

1. Use the pictures in the packet to determine the temperatures at 12:00 am (noon) and 2:00 am in the morning. Pay close attention to the times written on each page. The 12:00am is the before temperature and the 2:00 am is the after temperatures. Record your data in the chart.

|  |  |  |
| --- | --- | --- |
| Item | Temperature at Noon | Temperature at 2 am |
| Feathers |  |  |
| Brick |  |  |
| Sawdust |  |  |
| Fiberglass |  |  |
| Popcorn |  |  |
| Soil |  |  |

1. Graph you temperatures in the chart below. Use all the appropriate steps to make a good graph.
2. Analyze your date in 3-4 sentences. You need to draw a conclusion based off you graph. Explain the results but do not describe what the lines/bars in your graph are doing. You need to be specific when reporting your data.
3. What two insulators based off your results should be used to insulate a house in order to keep the temperature the same at 12:00 am and 2: am.
4. Which insulator surprised you and why? Do not say I don’t know or none. Formulate an answer.
5. If you wanted to insulate your house for the cheapest price which two materials should you use?