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

Period \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**How Cool Are You? *Insulation Project (Summative)***

***ASSIGNMENT:***

You will investigate the best method for preventing heat transfer (insulating to keep warm or cool). You will need to include all of the following information and all aspects included in the assignment rubric.

**Critical Review Before You Begin…**

**State the Kinetic Molecular Theory of Matter:**

**Describe the following methods of heat transfer:**

1. **Conduction**
2. **Convection**
3. **Radiation**

**Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period:\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Kinetic Molecular Theory and Heat Transfer: Summative Insulation Challenge**

**Budget Planning**

Each group receives $1000 dollars and must decide on how much of each supply they need to buy based off their design.

**Building Supplies Cost List:**

One Popsicle stick = $5

One oz. glue = $30

2 cm2 of cotton padding = $30

2 cm2 of aluminum foil = $50

One rubber band = $20

2 cm2 of reflective batting = $50

Cotton Balls = $5

4 cm2 Screen = $50

Rocks = $5

2 cm2 Wax Paper = $50

10 ml Sand = $25

20 ml Dry Beans = $25

Create Your Purchase:

|  |  |  |  |
| --- | --- | --- | --- |
| Item | Quantity (#) | Cost ($) | Total Costs ($) |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  = Total Cost |