

Design Model Must-Haves

Team Name: _____

Class Period: _____

Team Members: _____

1. Your team will use a large piece of paper to draw a model of your design before you build your prototype. The following information must be clearly shown in your model, and your teacher must approve this model before you begin construction on your prototype.

Design Model Must-Haves	Team Check	Teacher Check
Exact amounts of aluminum, copper sulfate, and saltwater you plan to use		
How you chose or calculated the amounts of reactants you plan to use		
A materials list including individual item costs and total cost to produce one heater		
Materials you plan to use specifically labeled in the model		
A plan for how you will vent the gases produced during the reaction without spilling the liquid out of that opening		
A way to test the temperature of your “food” at least every 5 minutes		
Use the model to show: <ul style="list-style-type: none">• how the energy will be transferred from the reaction system to the food and• what is happening to the food when this energy is transferred to it (you may use zoom-ins to show particle motion).		

2. Your team must also compose how-to instructions for the assembly and use of your homemade heater. You may choose to use the space below and on the back of this page to draft your how-to instructions, and/or your teacher may provide other options for you to use.