Name: _____ Date:_____ Block:_____

Unit 1 What is Fire? How do we control it?

Objective 4: How does heat transfer between materials??

Thermal Energy Transfer Lab

Context

When heat (thermal energy) is applied, solids and liquids can change into gases that can ignite and burn. We need to know how heat (thermal energy) is transferred from a fire to other objects in the room to understand what objects will ignite and burn. In this video you will observe heat transfer by conduction, convection and radiation.

Rapid Research and Report (R^3)

What is Conduction? Include words and an image that explains it best to you.

Materials: (you will need to add to this list as you build your procedure)

Iron (Fe) nail
Copper (Cu) wire
Wooden stick
3 marshmallows

Testable Question:

What is the effect of (insert independent variable) on (delete and insert dependent variable)?

Procedure part 1: : Individual
Write an experimental design that tests for the conduction of heat through various materials (wood, iron, and copper). You will receive the supplies above and have access to others in the classroom as needed. Remember to follow the experimental design criteria for success in your flip book.

Procedure Part 2: Partner
Examine the procedure of both partners. Discuss and review the criteria for success. Collaborate and make 1 procedure together.

Partner: _____

Safety:

Data:
Record the data below.

Claim:
Write a 1 sentence claim that answers your testable question.

Reasoning:
Provide Evidence for the experiment to support your claim. This should be answered in complete sentences.