## Particle Motion Standard 8th Grade Physical Science Rubric #3

**S.8.PS.3** Students will develop a model that predicts and describes changes in particle motion, temperature, and state of a pure substance when thermal energy is added or removed.

Below Standard	On Point	Above and Beyond
	What that means to us:  - Make and use a model to show how temperature changes the movement of particles (at the molecular level)  - Collect data on how temperature changes with the application of heat  - Describe the states of matter	

**Above and Beyond:** If you want to earn an A or a B, in addition to doing everything in the **On Point** column, you can do some additional work. Specifically for this rubric, you could make your own model (instead of just the BB model); include states of matter beyond just solid, liquid, and gas; or include graphs with your data collection.

Some generic ways to go above and beyond include: adding extra details, teaching the class, additional graphs/diagrams/drawings/maps, taking particular care in making your piece, researching something connected to the topic that isn't mentioned in the standard, making a blog post, making a game related to the topic, writing a play, or creating an experiment or activity to do. If you have a good idea for something above & beyond that isn't on this list, just let me know!

I believe I earned a/ 100 becaus	e
Helton's part	
☐ Resubmit	☐ Thank you
Write INB page #s	I agree with your grade:
Do your self-eval	and I think it's spot on.
Attach your work	☐ but I think it's a little high.
☐ Highlight ★'d points	□ but I think it's a little low.
■ Explain what was "A&B"	
·	

## **Resources for 8th Grade PS #3**

What v	ve'll be doing in class together (check it off when you've written it up):
	BB lab (Mon. 11/27)
	Birthday Candle lab (Thurs. 11/30)
	Hot Ice lab (Mon. 12/4)
	Dish Soap lab (Wed. 12/6)
	RHNB videos (Thurs. 12/7)

## Readings

Owl Book, Chapter 5, "Thermal Energy," p. 162-195
Leopard Book, Chapter 12, "Using Energy and Heat," p. 424-461
Everything You Need to Ace Science in One Big Fat Notebook, Chapter 14, "Thermal Energy," p. 137-142

Motion, Forces, and Energy, (skinny blue/green textbook), Chapter 6, "Thermal Energy and Heat," p. 166-193

## **Other Activities**

Making a model of the states of matter