

Chem 21.1

Goals:

- Describe states of matter in terms of energy changes
- Compare energy to the temperature during a phase change
- Graph the changes in temperature with a phase change

Bellwork:

- Imagine you go into space with a container full of liquid water. You then throw the water outside your rocket ship into the vacuum of space. What happens to the water?

Plan:

Return/discuss finals

Mini-lecture: states of matter review

Demonstration: phase changes in matter

- Prediction: what will happen to the temperature of the water as it remains on the stovetop?
- Graph out actual results (logger lite and temperature probe)

Discussion:

- Why didn't the temperature continue to go up?
- 100 Celsius is literature value for water's boiling point. Is our result different? Why?

Boiling: definition and how we can affect how a substance boils

HW: Crash Course video

Chem 21.2

Goals:

- Define and discuss phase changes, how is the energy changing?
- Case of sublimation: define and elaborate on what is going on

Plan:

Review phase changes in matter

Video: phase changes

Discussion: how something boils. Why is temperature and pressure important?

Sublimation: why something would skip a state of matter

Prelab: dry ice experiments

- Describe a property of dry ice you would like to investigate
- What safety concerns are there when handling dry ice?

Chem 21.3

Dry Ice lab