AGENDAS FOR THE WEEK: PHASE CHANGES

DATES September20-24

	MONDAY	TUESDAY (A) A4 13:30-15:00	WEDNESDAY (B)	THURSDAY (A) A4 13:30-15:00	FRIDAY (B)
	B-day Mr. Pieniazek only teaches classes on A-days.	**Objective(s): SWBAT** * Elaborate on how they think about temperature given what we learned about heat transfer * Discover condensation as well as compare and contrast with evaporation * Investigate changes of state as it relates to the arrangement of particles of matter and energy transfer	B-day Mr. Pieniazek only teaches classes on A-days.	**Objective(s): SWBAT** * Make connections between pressure changes and phase changes * Investigate properties of water such as cohesion through a mini-lab	B-day Mr. Pieniazek only teaches classes on A-days.
P		**Engage:** "Thinking about temperature" in the classroom. Students will make predictions about how temperature varies throughout the classroom based on what they have learned the past 2 weeks. Each student will be given a piece of paper to make a "one pager" illustration/write up while thinking and discussing with their group		**Engage: "**Cloud in a bottle" demo to tie together pressure changes and phase changes of condensation and evaporation. *Have the students either write observations about the demo in their small groups to hold them accountable for their participation and learning.	
L **A**		**Explore:** Condensation lab where each table small-group will work together. Students will have roles and will make connections to the short evaporation lab they completed together on Friday as well as complete discussion questions. !Science Pictionary Brain-Break! **Explain:** CK12 Phage changes simulation (teacher-led) guiding students through the phase changes with Peardeck questions. What is happening in each part of the diagram? **Elaborate:** "Why do wet clothes make us cold?" extension video		**Explore:** "Magical water" demo as small groups. Students will receive 2 halfway full cups of water and pour water from one to the other to top it off. They will then be presented with the word cohesion to break apart, understand, and relate to the lab. Have students record observations/etc. on their group notecard !Charades Brain-Break! **Explain:** Students will first read a brief scientific article about "Weather's central actor: water" through an interactive Nearpod lesson. Students will also answer four brief questions with their table groups to serve as a formative assessment **Elaborate:** Water strider cohesion/surface tension extension	

N		**Evaluate:** -Thinking about temperature -Follow up questions on condensation lab -Questions throughout the phase changes diagram - Follow along questions for simulation **Summary:** Students will think back to what they learned two weeks ago about energy transfer and how it differs across the classroom. This will give the teacher an understanding about where students are standing in how they think about this concept after learning about it two weeks ago. Condensation will be explored via a lab and tied back to the evaporation lab last class. The phase changes diagram will be explored while also leaving room to elaborate on adiabatic cooling and cloud formation. **Assessment(s):** -Thinking about temperature -Condensation lab questions		**Evaluate** -Cloud in a bottle observations/procedures as well as Magical water observations -4 question post reading/engage assessment **Summary** Students will discover properties of water with more “hands on” activities during this class. Cohesion will be explored with a short mini-lab. Students will expand upon their learning and understanding from the past two class days to visualize how changing the pressure affects temperature. **Assessment(s):** -4 question post reading/engage assessment	
Resources:		**Resource Requirements:** -Chromebook/computer -Paper -blue food coloring -beakers -ice -thermometer		**Resource Requirements:** - plastic bottle -matches -water - plastic cups -water -jumbo paperclips -Chromebook/computer	