

Lesson Plan

Course/Class: Science 7	Name: Melissa Creighton	Date: Jan 30/13
Topic: States of Matter, Temperature	Unit: Heat	Grade: 7
A. Intents/Objectives/Purpose <i>(from Aoki's IDAE Model)</i> Pedagogic, Scientific and Personal Purposes: Students will be able to... <ul style="list-style-type: none"> - Review the structure of matter from Grade 5 Physical Science: Properties and Changes in Materials Unit. - Compare the ideas presented with their own previous conceptions about solids, liquids and gases. - Conceptualize the differences in properties between solids, liquids and gases. - Begin to view states of matter as containing particles. 		

B. Activities	C. Resources	D. Students are...
Administration/Homework -Take Attendance -Organize the seating (if necessary) -Lay out masking tape on the floor → One 2m by 2m square in the center of the class ensuring that the space around the square is cleared -Collect students pictorial essays (assessment 1), as they are due today	-Attendance sheet -Student Journals -Masking tape	-Sitting at desks.
1. Introduction/Set/Advanced Organizers -Review states of matter including solids, liquids and gases in detail -Ask students to provide real life examples for each state of matter. Some examples would be: <ul style="list-style-type: none"> • Solid – chair, desk, pencil • Liquid – water, juice • Gas – air, helium (in balloons) 	-Smartboard to write notes on	-Copying notes. -Actively listening. -Responding to questions.
2. Clarifying/Creating-Understanding/Concept-Development -Find two volunteers to stand in square 1 and walk around freely -Find four volunteers to stand in square 2 and walk as freely as possible -Find 6 or more volunteers to stand in square 3 and try to move without stepping outside the square → Students in square 1 represent the molecules of gas matter → Students in square 2 represent the molecules of liquid matter → Students in square 3 represent the molecules of solid matter -Connect the activity to the content of the lesson and explain that students were actively representing particles of solids, liquids and gases.		-Volunteering for the activity. -Engaged in participation. -Having fun and being silly.

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<p>3. Coached/Guide-Practice/Seatwork</p> <ul style="list-style-type: none"> -Have students work in a group of 3 to create an artistic representation of particles in various states (giving the students 15 minutes to plan). -Allow them to choose between creating a dance, song, picture, graph or a different option that has been approved. -Explain that the activity that they just saw was one example of this. <p>*Note: The purpose of this activity is to solidify the knowledge students have obtained in regards to the different states of matter. No mark will be assigned, as the assessment is formative.</p>	<ul style="list-style-type: none"> -Art supplies that can be utilized by students. -Speakers connected to a laptop (to play music) -Paper of various sizes. 	<ul style="list-style-type: none"> -Letting their creative juices flow. -Collaborating with their group members -Visualizing states of matter in a way that makes sense to them.
<p>4. Closure/Summary</p> <ul style="list-style-type: none"> -Students will present their artistic representation to the class, explaining their reasoning as well. 		<ul style="list-style-type: none"> -Observing presentations respectfully. -Comparing their ideas about states of matter to those of their peers.
<p>5. Homework</p> <ul style="list-style-type: none"> -No homework assigned, as an assignment was just passed in. 		
<p>6. Review/Assessment</p> <ul style="list-style-type: none"> -This same activity will be revisited at a later date and assessed using specific criteria. By introducing the activity to students now they will be better able to show their understanding of the content through such a method. The concept of different states of matter will be revisited and expanded on once the Particle Model of Matter is introduced explicitly. -Students will be assessed on this knowledge on Quiz 1 as well as Assessment 2. 		