Slime Lab - Level 2 Adaptation

This lab is adapted for students with learning challenges that are moderate; concepts have been reduced and some tasks eliminated. Most major learning objectives are still addressed but major scaffolding is provided. Scoring guide should be modified to reflect adaptations. Rubric stays the same except organization section is not applicable.

INITIAL:

1. Observe the substances on the lab tray. Write down as many physical properties of each substance that you can observe and/or measure.
2. Predict chemical properties of each substance.

	Physical Properties	Predicted Chemical Properties	Measurements of mass, volume, and density label numbers
White Powder (Borax)			Mass of container + substance _____ Subtract container _____ Final Mass _____ Volume: Mass/volume = density _____g / _____ml = _____g/ml
Glue			Mass of container + substance _____ Subtract Container _____ Final Mass _____ Volume: Mass/volume = density _____g / _____ml = _____g/ml
Water			Mass of container + substance _____ Subtract Container _____ Final Mass _____ Volume: Mass/volume = density _____g / _____ml = _____g/ml

DURING:

3. Mix the 50 ml of water with the 50 ml of glue in **cup a. Stir until mixed.**
4. Mix the 1 ml of borax (white powder) with the 50 ml of water in **cup b. Stir until dissolved.**
5. Predict what will happen if you mix the two mixed substances (cup “a” and cup “b”).
6. Slowly pour the borax/water **in the glue/water** stirring vigorously.
7. Take new substance out of the cup and massage in your hands.
8. Play with the new substance, observing properties and behavior.
9. List new physical properties, including mass, volume, and density.
10. Predict chemical properties (teacher will confirm predictions later as a class demonstration--these can not be tested at this point).
11. Give data of all properties that have been measured to teaching assistant or teacher to record in class spreadsheet.

Prediction Statement for glue/water + borax/water when mixed together:
12. Squeeze out the air from the bag and then submerge in water tank. What did you observe and what does it mean?

	Physical Properties	Predicted Chemical Properties	Measurements
Glue/ Water + Borax/ Water			Mass of container + substance _____ Subtract Container _____ Final Mass _____
			Volume: _____
			Mass/volume = density _____g / _____ml = _____g/ml

AFTER

Analyze the data on the class chart--answer in complete sentences.
Teacher hands out class chart with all measurable data: temperature, mass, volume, and density.

<table>
<tr><td>13.</td><td colspan="2">What relationships among mass, volume, and density do you notice?</td></tr>
<tr><td>14.</td><td colspan="2">What did you observe about heat energy of the substance?</td></tr>
<tr><td rowspan="4">15.</td><td colspan="2">Three statements about the data in the chart: Is all the data congruent (all the same)? Look for data among groups that stands out and explain why you think that particular data is different from the rest of the group.</td></tr>
<tr><td colspan="2">1.</td></tr>
<tr><td colspan="2">2.</td></tr>
<tr><td colspan="2">3.</td></tr>
<tr><td>16.</td><td colspan="2">How does the chart help you analyze the data?</td></tr>
<tr><td rowspan="2">17.</td><td colspan="2">What were the physical changes and chemical changes in this lab?</td></tr>
<tr><td>Physical Changes</td><td>Chemical Changes</td></tr>
<tr><td>18.</td><td colspan="2">Observe teacher demo on chemical properties. List the chemical properties you observed.</td></tr>
</table>

CONCEPT BOX

Physical	Chemical
Density of water is 1g/ml	Toxic
Color	Combustible
Solid, liquid, gas	Flammable
Viscosity	Biodegradable
Amorphous solid	Endothermic
Flexibility	Exothermic
Porous	Polymer
Transparent, translucent, opaque	
Mass divided by volume = density	
Texture	
Mass	
Volume	
Density	
Temperature	
Liter (l)	
Milliliter (ml)	
Gram (g)	
Smell	
Absorb	