

Examples of Changes for Preassessment			
Glass breaking	Hammering wood together to make a playhouse	Rusting bicycle	Melting chocolate for dipping
Slicing bread	Mixing Kool-Aid powder with water	Mowing the lawn	Bleaching your hair
Fireworks exploding	Squeezing oranges to make orange juice	Roasting marshmallows	Breaking an egg
Burning leaves	Popping popcorn	Burning toast	Pouring milk on your cereal
Cream being whipped	Freezing popsicles	Water evaporating	Spoiling food

Changes Stations		
Station	Physical or Chemical?	Teacher Preparation
Cabbage Juice	Chemical	<ol style="list-style-type: none"> <li>1. Chop red cabbage into small pieces and place in a bowl. Cover with boiling water and let sit for 10 minutes. Strain cabbage and reserve liquid.</li> <li>2. Place 50 mL of cabbage liquid into small cups (two cups per group).</li> <li>3. Using a dropper, students will add vinegar to one cup until the color changes.</li> <li>4. In the other cup, students will add baking soda until the color changes.</li> </ol>
Plaster of Paris and Water	Chemical	<ol style="list-style-type: none"> <li>1. Add two heaping spoons of Plaster of Paris to zip-lock bags (one bag per group).</li> <li>2. Students will add room temperature water forming the plaster.</li> </ol>

		<ol style="list-style-type: none"> <li>Students make a note of how the outside of the bag feels (it will get warmer).</li> </ol>
Modeling Clay	Physical	<ol style="list-style-type: none"> <li>One large ball of clay.</li> <li>Each student group will divide the clay so each group member has a piece.</li> <li>Allow students to build something out of their clay piece.</li> <li>Before leaving the station, students return the clay into a large ball.</li> </ol>
Cut Apples	Chemical	<ol style="list-style-type: none"> <li>Cut an apple into fourths and place in a zip-lock bag. Let sit overnight.</li> <li>Right before class, cut another apple into fourths and place in a zip-lock bag.</li> <li>Students observe both bags of apples.</li> </ol>
Alka-Seltzer with Water	Chemical	<ol style="list-style-type: none"> <li>Place about 125 mL of water into small cups (one cup per group).</li> <li>Break Alka-Seltzer tablets into quarters.</li> <li>Students place an Alka-Seltzer piece into the cup of water.</li> </ol>
Salt and water	Physical	<ol style="list-style-type: none"> <li>Place about 125 mL of water into clear cups.</li> <li>Add a spoonful of salt and stir.</li> </ol>
Separating Rocks	Physical	<ol style="list-style-type: none"> <li>Make a mixture of rocks of various sizes (pebbles, gravel, and sand).</li> <li>Students will use screens of various sizes to separate the rocks into their different sizes.</li> </ol>
Sodium Polyacrylate Crystals	Physical	<ol style="list-style-type: none"> <li>Sodium polyacrylate crystals are the super absorbent crystals that are found in disposable diapers. They can be purchased online.</li> <li>Place a teaspoon of the sodium polyacrylate into disposable 2 oz cups (one cup per group).</li> <li>Students add water to cups and watch as the crystals expand.</li> </ol> <p>*Safety precautions-</p> <ul style="list-style-type: none"> <li>Material is safe to touch, but rinse hands afterwards because it can irritate eyes, nasal</li> </ul>

		<p>or respiratory passages.</p> <ul style="list-style-type: none"> <li>• Crystals are safe to throw away in the regular trash. DO NOT pour down the sink.</li> </ul>
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Reversible Changes Activities		
Station	Physical or Chemical?	Teacher Preparation
Color Mixing	Physical	<ol style="list-style-type: none"> <li>1. Cut coffee filters into strips.</li> <li>2. Using a toothpick, students will mix one drop of yellow and one drop of blue food coloring on a piece of wax paper.</li> <li>3. Students put a drop of the green color 1" from one end of their filter paper.</li> <li>4. Place filter paper (green dot down) into a cup with a small amount of water. Make sure the green dot is not directly in the water.</li> </ol>
UV Beads	Chemical	<ol style="list-style-type: none"> <li>1. Students observe UV beads away from the sun.</li> <li>2. Place the beads in the sun, make note of the change.</li> <li>3. Then remove the beads from the sun.</li> </ol>
Breaking Rocks	Physical	<p>Using hammers, students will break larger rocks into smaller rocks.</p> <p><i>*Safety notice*:</i> Eye protection should be worn during this activity.</p>
Melting Ice	Physical	<ol style="list-style-type: none"> <li>1. Put water into ziplock bags (one bag per group). Freeze.</li> <li>2. Students will put bags of ice in the microwave to melt.</li> <li>3. Place the bags of water back in the freezer.</li> </ol>
Heat-sensitive Baby Spoons (used for babies to prevent burns from hot food)	Chemical	<ol style="list-style-type: none"> <li>1. Place the baby spoon in hot tap water.</li> <li>2. Remove the baby spoon from the water.</li> </ol>

