

Claire Wurzer

<p>Grade: Preschool</p>	<p>Subject: Science</p>
<p>Materials: Apples, baking soda, vinegar, tray, liquid measuring cup, measuring spoons, paper towels, worksheets, crayons</p>	<p>Technology Needed: N.A.</p>
<p>Instructional Strategies:</p> <ul style="list-style-type: none"> ø Peer ø Direct instruction teaching/collaboration/ cooperative learning ø Guided practice ø Socratic Seminar ø Visuals/Graphic organizers ø Learning Centers ø PBL ø Lecture ø Discussion/Debate ø Technology integration ø Modeling ø Other (list) 	<p>Guided Practices and Concrete Application:</p> <ul style="list-style-type: none"> ø Large group activity ø Independent activity ø Pairing/collaboration ø Simulations/Scenarios ø Other (list) <p>Explain:</p> <ul style="list-style-type: none"> ø Hands-on ø Technology integration ø Imitation/Repeat/Mimic
<p>Standard(s)</p> <p>-SCI.1.3 Observe and describe changes (e.g., ice to water) that occur in the world, including changes to living things and natural processes (e.g., weather, day/night cycle).</p> <p>-SCI.2.4 Make predictions and generate ideas based on past experience, observations, and information.</p>	<p>Differentiation</p> <p>Below Proficiency: Students will be guided by teacher with more step by step instructions and guidance. Students who have trouble writing their name will try and then the teacher will write it under their work. Students will get help pouring their ingredients into the apple if needed. Students will be guided with questions to help them discover and learn more.</p>
<p>Objective(s)</p> <p>-Students will be able to make a prediction about what will happen during the experiment by drawing a picture of their prediction.</p> <p>-Students will be able to observe and describe what happens in the apple when vinegar and baking soda are put inside and draw their observations.</p> <p>-Students will be able to compare their predictions and their observations to see if they are the same or different and discuss it with the teacher.</p> <p>Bloom's Taxonomy Cognitive Level: II-Understanding</p>	<p>Above Proficiency: Students will be given more freedom in their discovery. Students can elaborate in their drawing and vocal observation. If students get done early, they can write letters of volcano.</p> <p>Approaching/Emerging Proficiency: Students will complete the lesson as planned.</p> <p>Modalities/Learning Preferences:</p> <p>Visual-worksheet, watching experiment</p> <p>Auditory-instructions, discussion, listening to experiment</p> <p>Kinesthetic-doing the experiment, students can stand or sitting when doing their work</p>

<p>Classroom Management- (grouping(s), movement/transitions, etc.)</p> <ul style="list-style-type: none"> -Call students from the carpet who are sitting respectfully to come join the table using their walking feet. -Take the worksheets and put them aside. Bring materials to students at the table. --Take away the trays and give the students back their worksheets. -Tell students how excited I am that they made their own volcanoes today. Tell students that they can go find another station or free choice activity. -Invite other friends to the station and repeat. 	<p>Behavior Expectations- (systems, strategies, procedures specific to the lesson, rules and expectations, etc.)</p> <ul style="list-style-type: none"> -Students will walk when they are transitioning. Students will be reminded when transitioning. -Students will raise their hand when they have a question, reminders throughout the lesson will be provided. -Talk to students about how the vinegar tastes very icky so we need to keep our hands away from our faces during this time. -Students will not handle materials until told to do so.
Minutes	Procedures
<p style="text-align: center;">7</p>	<p>Set-up/Prep:</p> <ul style="list-style-type: none"> -cut out cores of apples, get supplies ready at four spots at the rectangle table, print worksheets -Have the worksheets and crayons sitting on the table. Have the main ingredients on a side table for students to use shortly. -Have the trays with all of the materials ready and sitting aside.
<p style="text-align: center;">2</p>	<p>Engage: (opening activity/ anticipatory Set – access prior learning / stimulate interest /generate questions, etc.)</p> <ul style="list-style-type: none"> -Call students from the carpet who are sitting respectfully to come join the table using their walking feet. -This week we have been learning about volcanoes. Today we get the chance to make our own volcanos. -Tell students that today we are going to make a volcano out of an apple! - What do you think happens when a volcano erupts? (lava bursts out of the top)
<p style="text-align: center;">3</p>	<p>Explain: (concepts, procedures, vocabulary, etc.)</p> <ul style="list-style-type: none"> -We have apples, vinegar, and baking soda. Raise your hand if you have an idea of how you think we could use these to make a volcano? (call on a couple) -We are going to put them inside. -Remember when we made green eggs fizz during Dr. Seuss week? We are using the same ingredients for this experiment. What happened when we did that? (call on a couple) -Thinking about what happened in that experiment, what do you think will happen when we do this? -Draw your prediction on the first apple on the sheet. Remind students to write their name at the top of the worksheet. -If students are done early, they will be guided through writing some of the letters of volcano. “What letter does the word volcano start with? V-olcano? Write the letter at the bottom of your sheet.” Etc. -Now we will get try this experiment and see if what we thought is correct!

<p>4</p>	<p>Explore: (independent, concrete practice/application with relevant learning task -connections from content to real-life experiences, reflective questions- probing or clarifying questions)</p> <ul style="list-style-type: none"> -Take the worksheets and put them aside. Bring materials to students at the table. -Talk to students about how the vinegar tastes very icky so we need to keep our hands away from our faces during this time. -Have students put the baking soda in the whole. Then help the students to pour the vinegar into the hole from a cup. -Ask the students what they are seeing and hearing. Have a discussion about the observation. -Why do you think it got all bubbly? Why do you think it was making that noise? What did the vinegar do? What do you see? -Guide students towards further exploration/discovery through questions, like this.
<p>3</p>	<p>Review (wrap up and transition to next activity):</p> <ul style="list-style-type: none"> -Take away the trays and give the students back their worksheets. -Have the students draw what happened during the experiment on the second apple. -Ask students about if what they thought would happen happened? Talk about differences between the first and second drawings. -Tell students how excited I am that they made their own volcanoes today. Tell students that they can go find another station or free choice activity. -Invite other friends to the station and repeat.
<p>Formative Assessment: (linked to objectives) Progress monitoring throughout lesson-clarifying questions, check-in strategies, etc.</p> <p>Students will discuss what they think will happen during the experiment</p> <ul style="list-style-type: none"> *when we add more vinegar, what do you think will happen? *What do you think the substances will do when they are mixed? * What do you think it will look like? * What do you think it will sound like? Etc. <p>-Students will be prompted to make observations during and after the experiment.</p> <ul style="list-style-type: none"> *What does it look like? *What does it sound like? *What is happening? *Did you think that would happen? Etc. <p>Consideration for Back-up Plan:</p>	<p>Summative Assessment (linked back to objectives) End of lesson:</p> <ul style="list-style-type: none"> -Students will be able to predict what will happen using the worksheets to document. At the end of the lesson students will be able to record their observation of the experiment, using the worksheet to document. Students will be able to compare their predictions and the observations of the experiment by discussing their worksheet results. <p>If applicable- overall unit, chapter, concept, etc.: Volcanoes/Rocks</p>

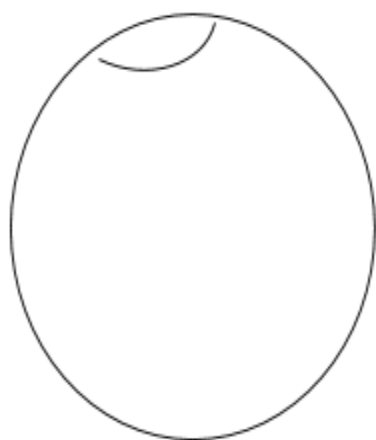
Reflection (What went well? What did the students learn? How do you know? What changes would you make?):

Overall, I feel that this lesson was very successful. Transitioning the students to the station went very well. The students walked and if they did not walk, they had to go back to the carpet and try again. I felt like my instruction was good with this and I followed through by making sure students went back to the carpet if they did not walk. When the students got to the table, I had the apples sitting in the center, but instructed the students not to touch them, but that we would get to in just a little bit. This was still very distracting for a lot of the students as we discussed our predictions. If I did this again, I would have the apples sitting off to the side and bring them to the students right before the experiment. This would solve that problem and make it much easier for students to focus and reflect on their observations. The students really connected with the prediction. It helped that they did an experiment with similar materials during Dr. Seuss week. The students had great ideas about how it was going to get bubbly and make a popping noise. Most of the students were very detailed on their drawings. Some of the younger students just scribbled, but I feel that that was more their developmental level and less of lack of participation. I feel this way because they could describe their drawing in great detail, despite the lack of visual detail.

It was very important that we talked about how we cannot put the materials by our faces because many students thought that we were going to eat the experiment because it was an apple. We discussed how it would be very yucky to taste the experiment and how it would hurt our eyes a lot so we have to be very careful and not touch our faces. One girl still licked the vinegar and said, "This snack tastes like poison". I feel like this would have happened a lot more if we have not talked about it. The students were very good at making observations about the experiment. One thing that was difficult for the students was connecting their observation of what they thought would happen and what did happen. I asked them a question about how they thought they were different, but we should have had more guided discussion prior to this. If we would have talked about this more in depth and I would have asked more specific questions, like "Did it sound like you thought it would?", "Did it erupt in the way you thought it would?", or "Was it as bubbly or more bubbly than you thought it would be?", they would have been able to explore this concept more thoroughly. Overall, I thought this lesson and experiment went very well.

Name:

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