

<p>Grade: 4th</p>	<p>Subject: Science</p>
<p>Materials: Video of broken glass stacked on each other (or cut up slips of clear lamination paper), wax paper, glue, snowflake worksheets, paper plates, and scissors</p>	<p>Technology Needed: Projector/computer</p>
<p>Instructional Strategies:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Direct instruction <input type="checkbox"/> Guided practice <input type="checkbox"/> Socratic Seminar <input type="checkbox"/> Learning Centers <input type="checkbox"/> Lecture <input type="checkbox"/> Technology integration <input type="checkbox"/> Other (list) <ul style="list-style-type: none"> <input type="checkbox"/> Peer teaching/collaboration/cooperative learning <input type="checkbox"/> Visuals/Graphic organizers <input type="checkbox"/> PBL <input type="checkbox"/> Discussion/Debate <input type="checkbox"/> Modeling 	<p>Guided Practices and Concrete Application:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Large group activity <input type="checkbox"/> Independent activity <input type="checkbox"/> Pairing/collaboration <input type="checkbox"/> Simulations/Scenarios <input type="checkbox"/> Other (list) <input type="checkbox"/> Hands-on <input type="checkbox"/> Technology integration <input type="checkbox"/> Imitation/Repeat/Mimic <p>Explain: We will all discuss and predict why we think snow is white. Collect our previous knowledge about water, ice, and snowflakes to make our predictions (using KWL charts). Then I will explain why it is white. The students will then do an activity to prove why snow is white.</p>
<p>Standard(s) ESS2.A: Earth Materials and Systems -Rainfall helps to shape the land and affects the types of living things found in a region. Water ice, wind, living organisms, and gravity break rocks, soils, and sediments into smaller particles and move them around.</p>	<p>Differentiation Below Proficiency: For those below proficiency, I will model how to do the activity. During the class discussion, I will take notes on what their previous knowledge is about snow, ice, water, etc. That will help them make their predictions (if they did not know as much as the others before, the information is now presented to them on the board).</p>
<p>Objective(s) By the end of the lesson, students will be able to prove why snow appears white by discussing with peers and participating in an activity. Students will make predictions and come to a conclusion.</p> <p>Bloom’s Taxonomy Cognitive Level: Evaluating Level</p>	<p>Above Proficiency: For those above proficiency, these students will be able to come up with other objects/ideas that could help prove their predictions, other than the activity/example done in class. They will discuss other times they have seen snow not be white.</p> <p>Approaching/Emerging Proficiency: For those approaching proficiency, these students will be able to follow along as I model the activity. They can make predictions on their own (and still refer to the information on the board). They are also able to join into the discussion about different colored snow they’ve seen.</p> <p>Modalities/Learning Preferences:</p> <p>Visual: I will model the activity in front of the class. We will watch a few videos and images will be shown of snow (and the different colors it appears). I will also write down previous knowledge on the board to help students make predictions.</p> <p>Auditory: We will discuss why snow appears white? Why it appears other colors? What we know about ice, water, snowflakes, etc.</p> <p>Kinesthetic: Students will participate in the hands-on activity, creating their own snowflakes by using a method that proves snow appears whatever color the light reflects.</p> <p>Intrapersonal: Students can work on the activity on their own and make their own predictions.</p> <p>Interpersonal: Students will brainstorm, discuss, and share as a group-collaborating as a whole class.</p>

<p>Classroom Management- (grouping(s), movement/transitions, etc.) The students will sit in their seats (they are grouped in pods of 2 or 3). I will transition them from their previous activity by using positive comments to encourage those straggling. Students should follow procedures for...</p> <ul style="list-style-type: none"> • Active listening • Voice levels • Hand raising • Group discussions • Participate 		<p>Behavior Expectations- (systems, strategies, procedures specific to the lesson, rules and expectations, etc.) Students are expected to...</p> <ul style="list-style-type: none"> • Be active listeners • Keep voice level at a 0 during lecture, watching videos, and working on the activity • Keep voice levels at a 2 or 3 when discussing • Participate in sharing and listening • Raise their hands if they have any questions or comments to make 	
Minutes	Procedures		
2 min	<p>Set-up/Prep: The projector needs to be on, images of snow, snowflakes, water, should be pulled up. The wax paper needs to be cut Snowflake worksheets need to be printed</p>		
10 min	<p>Engage: (opening activity/ anticipatory Set – access prior learning / stimulate interest /generate questions, etc.) One of the students was discussing why snow is white, it has been snowing a lot recently. I thought this was a great idea to turn into a lesson. So, we will revisit this question. I will ask the students what they know about ice, water, snowflakes, etc. We will record this information on the board. We can look at images to help us make observations and recall knowledge. I will have the students make and write down their predictions for why the snow appears white. Once the predictions are written, I will show them how when clear lamination paper is stacked on top of each other (under the light of the classroom) the paper becomes reflective and appears white. This demonstrates how water, ice, and individual snowflakes can be clear but appear white under the lighting. I will put the paper under different colored lights to show how it changes colors.</p>		
10 min	<p>Explain: (concepts, procedures, vocabulary, etc.) I will have students pass out the wax paper, paper plates, glue, and snowflake worksheets. I will then model how to create the snowflake and show them using the projector. The students will do the same with the materials they are given.</p>		
3 min	<p>Explore: (independent, concrete practice/application with relevant learning task -connections from content to real-life experiences, reflective questions- probing or clarifying questions) Students will make connections from where they have seen snow appear different colors. They will discuss in their pods, or as a whole group, how and when this happens. We can pull up paintings, photography, and other art to further make the point that snow can appear white, blue, orange, or whatever light is shone on it. If students’ predictions were correct, they need to write why they were correct and write down 1 new thing they learned and 1 new question. If students’ predictions were incorrect, they need to correct their prediction and explain why they were wrong and one question and new thing they learned.</p>		
2 min	<p>Review (wrap up and transition to next activity): I will have the students place their plates (finished activity) in the windowsill to dry. I will then transition them to the next activity.</p>		
<p>Formative Assessment: (linked to objectives) Progress monitoring throughout lesson- clarifying questions, check- in strategies, etc. I will assess the students on how their previous knowledge relates to the discussion question and on their predictions. This assessment is mostly based on if they are thinking like a scientist, using the data collected, making observations, and not being afraid of making mistakes. Consideration for Back-up Plan: We will discuss why snow is white, we will look at different videos, I will pass out scraps of laminated paper, the students will stack the paper and see how light reflects on it. I will display different colors on the projector and these pieces of paper can be brought up to show how whatever the color of light is, reflects in the appearance of the snow.</p>		<p>Summative Assessment (linked back to objectives) End of lesson: I will assess the students based on their finished project/activity. If their predictions were wrong, they will correct them in their science journals, if they were correct, they will state why they were correct and any new information they may have learned. If applicable- overall unit, chapter, concept, etc.:</p>	
<p>Reflection (What went well? What did the students learn? How do you know? What changes would you make?):</p>			