

Ashley Wanner

Grade: 4 th		Subject: Science	
Materials: 2 pieces of construction paper, 12 inches of tape, and a scissors		Technology Needed: None	
Instructional Strategies: <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)		Guided Practices and Concrete Application: <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) Explain:	
Standard(s) 4-ETS1-1: Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time or cost		Differentiation Below Proficiency: In a group with high flyers. Above Proficiency: They have to figure out a way to make the longest chain they can with limited materials. Approaching/Emerging Proficiency: Giving them a broad spectrum to figure out how to create the longest paper chain. Modalities/Learning Preferences: kinesthetic	
Objective(s) The students will construct a paper chain the longest they can while having it not break. Bloom's Taxonomy Cognitive Level: Construct			
Classroom Management- (grouping(s), movement/transitions, etc.) The students will quietly think of a strategy themselves at their desks first before I put them into groups (the groups will consist of high flyers and low flyers).		Behavior Expectations- (systems, strategies, procedures specific to the lesson, rules and expectations, etc.) When they think to themselves, their voice is to be at a zero, but when they are in groups the voice level can be brought up to a 2. The rules are that they can only use the 3 materials provided for them.	
Minutes	Procedures		
2 mins	Set-up/Prep: Getting the materials ready (construction paper, tape, and scissors)		
5 mins	Engage: (opening activity/ anticipatory Set – access prior learning / stimulate interest /generate questions, etc.) Asking them what they think the word strategy means. Tell them that they will be thinking of a strategy to create the longest paper chain. Asking the question “what do you think your team should do to create the longest paper chain out of the other groups in the class?”.		
35 mins	Explain: (concepts, procedures, vocabulary, etc.) Strategy: a plan or action to accomplish something. The students will then think to themselves about a plan they think would work best, and then I will separate them into groups that I created. They will then have 30 minutes to complete the task, but half way through I will say you can only use your right hand and they will have to figure out how to work together.		
5 mins	Explore: (independent, concrete practice/application with relevant learning task -connections from content to real-life experiences, reflective questions- probing or clarifying questions) Each person will think by themselves how they think will be the best way to construct the tape chain. Ask what they think they will have to do since everyone in the group can only use one arm.		
5 mins	Review (wrap up and transition to next activity): Measure the tape chains to see which one of the groups has the longest. If it breaks when we measure, the group chooses what piece they want me to measure. Ask them what strategies the winning team used to create the longest chain.		
Formative Assessment: (linked to objectives) Progress monitoring throughout lesson- clarifying questions, check- in strategies, etc. Walk around and see what ideas they came up with in each group.		Summative Assessment (linked back to objectives) End of lesson: At the end of the lesson, students will see which one is longer. If applicable- overall unit, chapter, concept, etc.:	

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Consideration for Back-up Plan: Possibly give them another 6 inches of tape.

This is just a fun activity before they start a new chapter, so by the end of the activity they would have learned to work together and figured out a way to make something out of certain materials they were given.

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

Overall, my lesson was very fun. I think it was good that I started off by talking about strategy and what it means. Letting the students think about it individually and then as a group was a good way to approach it. The paper chains went very well, all the students understood the concept and each group had a different way of approaching it. The students learned what method worked best to make the longest paper chain. Cutting the pieces of paper and tape thin was the best approach to win the longest chain. When we declared who the winner was, the class as a whole talked about what methods the winning team used to create their chain. After thinking about the lesson, I would have added that the students could not talk to each other for the last 5 minutes when forming the paper chain. This would have really made them have to strategize with their team and figure out what to do.