

Lesson Plan Template

Grade: Kindergarten		Subject: Science	
Materials: Penguin template, crayons, spray bottle		Technology Needed:	
Instructional Strategies: <input type="checkbox"/> Direct instruction <input type="checkbox"/> Peer teaching/collaboration/ <input type="checkbox"/> Guided practice cooperative learning <input type="checkbox"/> Socratic Seminar <input type="checkbox"/> Visuals/Graphic organizers <input type="checkbox"/> Learning Centers <input type="checkbox"/> PBL <input type="checkbox"/> Lecture <input type="checkbox"/> Discussion/Debate <input type="checkbox"/> Technology integration <input type="checkbox"/> Modeling <input type="checkbox"/> Other (list)		Guided Practices and Concrete Application: <input type="checkbox"/> Large group activity <input type="checkbox"/> Hands-on <input type="checkbox"/> Independent activity <input type="checkbox"/> Technology integration <input type="checkbox"/> Pairing/collaboration <input type="checkbox"/> Imitation/Repeat/Mimic <input type="checkbox"/> Simulations/Scenarios <input type="checkbox"/> Other (list) Explain:	
Standard(s) K-LS1-1. Use observations to describe patterns of what plants and animals (including humans) need to survive.		Differentiation Below Proficiency: Talking with a table/ carpet partner about what they are noticing about the experiment during turn and talks Above Proficiency: Sharing their discoveries with their classmates by saying them to The whole group. Modalities/Learning Preferences (Auditory, Visual, Tactile, Kinesthetic) Auditory- hearing the directions and explanation Visual- they are able to have a picture of a penguin in front of them Kinesthetic- coloring the picture, moving to the carpet with their picture and using the spray bottle Tactile- Feeling the wax of the crayon	
Objective(s) By the end of the lesson the students will have an understanding of how penguins stay dry by participating in the activity.		Behavior Expectations- (systems, strategies, procedures specific to the lesson, rules and expectations, etc.) Students will keep their hands to themselves. When it is their turn they use the bottle respectfully and don't spray it everywhere or on anyone else.	
Bloom's Taxonomy Cognitive Level: Understanding		Classroom Management- (grouping(s), movement/transitions, etc.) Teachers will pass out penguin template to the students. When they are done coloring they come to the rug and dance to a penguin song. This helps with the wait time.	
Minutes	Procedures		
3	Set-up/Prep: Have penguin template printed off		
3	Engage: (opening activity/ anticipatory Set – access prior learning / stimulate interest /generate questions, etc.) You guys have been talking a lot about penguins lately and I want to know something you think is really cool about them. –Allow time for share outs. That's all really interesting information! I have learned more about penguins since I have been in here. Today I have an activity for you that is going to be really fun, we are going to do a little experiment to see how penguins stay dry even though they spend a lot of time in the water. (Put on a rain coat or use an umbrella) What do I have on? Right a raincoat! Why do people wear this in the rain? Right! It can be cold and wet and to help them stay dry and warm when we have to go outside when it is raining we put on a raincoat. (Spray water on raincoat and walk around the room to show the students) For penguins it is kind of the same thing except they don't have to put on a coat, the wax on their feathers keeps them from getting wet when they go in the water or slide on the snow on their tummies.		
4	Explain: (concepts, procedures, vocabulary, etc.) -I have a picture of a penguin printed out and the first thing you are going to do is color it. What color is a penguin's tummy? What about their feathers? Nose? Feet? I want you to color yours like we have seen them in a book. Now listen very carefully, I need all eyes up here. When you color, you have to color hard. That means you have to use your muscles a little. Don't press too hard so you break your crayon, but the black should be dark when you're done. I want you to color it twice to make sure you got all the spots colored because white can be hard to see. It's important because you'll be able to see what the water does when you spray it on better. After they have colored for a few minutes ask why they think it is important to cover all the spots on the paper? A penguin has feathers all over its body not just in a few places. So when you are coloring think about covering all the spots so your penguin has feathers all over. What do you think would happen if you missed a couple spots? Think about what would happen if I went outside without a raincoat or had an umbrella that was too small. What would happen? Right, some spots on my clothes would be wet and I would get cold.		
2	-When you are done, you can come to the rug and dance to a penguin song. If there is wait time before the song is put on have them turn their paper over and draw their own penguin.		
5	-Okay, now that we have our wiggles out, let's see what happens when we spray water on the picture. So since a penguin spends most of his time in the water, does he stay wet for a long time? What do you think? Where does a penguin live? Right, Antarctica! Is it warm there? No, it is very cold! I think it would be very hard for a penguin to be able to live there if he stayed wet. To help them		
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	<p>be able to live there, their feathers are waterproof because of a couple things. They have a lot of them and they grow very close together, they also have a gland in their bodies that make their feathers waxy. Touch your paper, doesn't it kind of feel funny? That's kind of like how a penguins feathers are. The wax helps because the water won't soak into their feathers. Think back to when I was wearing my raincoat, the water didn't soak into the coat, it repelled off. Say that word with me, repel, that means something doesn't stick to or soak into something. The penguins have the wax on their feathers to repel the water. This helps them to stay warm and dry in the really cold temperatures.</p> <p>-Now each one of you is going to get a turn with the spray bottle and spray the water on your paper. Only use 2 sprays otherwise your paper will be too wet. This is going to show us how the wax doesn't let the water soak in. What are you noticing about the water drops after you spray them on your paper? Do they soak in? Why not?</p>
<p>10 1 10</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> <p>-Students color their penguin pictures.</p> <p>-Students meet at the carpet with their pictures and place them in front of them.</p> <p>-They each take turns spraying the water on their paper.-Demonstrate 2 sprays and then pass. What happened? What are you noticing? Turn and tell a friend that is sitting by you what you saw.</p> <p>-When everyone has had a turn spraying water on the tummy of the penguin and the droplets of water are still there have them move them to the outside part of the paper that isn't colored. What are you noticing about the water and paper now? Turn and tell a carpet partner what you see.</p>
<p>4</p>	<p>Review (wrap up and transition to next activity):</p> <p>How does the wax on a penguins feathers help them? Why do they need it? What might happen if they didn't have it? What did you discover with the activity today?</p>
<p>Formative Assessment: (linked to objectives) Progress monitoring throughout lesson- clarifying questions, check-in strategies, etc.</p> <p>Observing while the students are coloring to make sure they are covering all the spots Listening to what they discuss about what they notice is happening when they are spraying water on their paper while sitting at the carpet.</p> <p>Consideration for Back-up Plan:</p>	<p>Summative Assessment (linked back to objectives) End of lesson:</p> <p>Students make a flip grid video about what they know about an animal. (What it needs to survive, what it looks like, what it eats, etc.)</p> <p>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> <p>I was very excited to teach this lesson because I thought it was a fun way to bring the information into perspective for the young learners. They had been talking about penguins for quite a while and had some really great background knowledge. During the engagement activity I had them just tell me some facts they knew about penguins and I was really impressed with what they remembered and were able to tell me. A few were able to note the idea of a penguin being waterproof, but didn't exactly know why. Their next step was to identify the colors of a penguin and color the template, I made sure to really emphasize how important it was to color hard or twice to make sure that all the white spaces on the tummy were covered because that was a really important part later. One of the things I was thinking about when I was writing this lesson was that their arms would get tired because they needed to use their muscles. This did happen a couple times, but they were able to keep going without too much fuss. I was also concerned about them not understanding what I meant by coloring hard and how to get a dark black color. To help them visualize what I meant, I showed an example of one of the student's work. I was really impressed with how well they were able to keep up with the coloring even when I told them to do it again because I was worried that they wouldn't want to because they had already colored that part. After they completed coloring, they all participated in one of their favorite penguin dance songs. I think this really helped them to refocus after they had been working hard. They met me at the carpet after the song with their papers and I asked them to place them on the floor in front of them so they weren't tempted to wave them in the air. I also really want to focus on using positive language because I believe this shows the learners that what they are doing matters and that you see it. Before we started spraying the paper with water we had a discussion about how waterproof feathers help a penguin in the cold climate. The students brought up some very good ideas about what they thought about how waterproof feathers would be beneficial to penguins. If I could do something differently during this part it would be talking more about vocabulary, such as repel. We talk briefly about it, but I wish I would've spent a little more time with it and other words. They did really well with controlling the spray bottle and waiting patiently. I knew that this lesson would be new for them and while I was writing this lesson I was thinking about how they would react to spraying the water on the paper. While they were spraying the water on the paper, I was asking what they were noticing and why it might be happening. I was really impressed how they were able to clearly explain what they were seeing and why it was happening. At the end of the experiment, they moved the droplets of water from the colored part of the page to the edge of the paper. I asked what they were noticing and why they thought it was happening. I think this really help to close the experiment and show them what happens when the wax isn't there to repel the water and how that could affect the penguin. This wasn't in my original plan, but it was added on the fly. If I could change anything else about this lesson, it would be to have something to do for them while they wait or give</p>	

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them a task. My teacher thought of having them write their numbers and the alphabet and I thought that was a great way to keep them occupied and focused on something.