

Lesson Plan Template

Grade: 1st		Subject: Science/Light	
Materials: Worksheets, various objects from around the room, flashlights, poster/whiteboard, clipboards, name sticks		Technology Needed: laptop and projector	
Instructional Strategies: € Direct instruction € Peer teaching/collaboration/ € Guided practice cooperative learning € Socratic Seminar € Visuals/Graphic organizers € Learning Centers € PBL € Lecture € Discussion/Debate € Technology integration € Modeling € Other (list)		Guided Practices and Concrete Application: € Large group activity € Hands-on € Independent activity € Technology integration € Pairing/collaboration € Imitation/Repeat/Mimic € Simulations/Scenarios € Other (list) Explain:	
Standard(s) 1-PS4-3 Plan and conduct an investigation to determine the effect of placing objects made with different materials in the path of a beam of light.		Differentiation Below Proficiency: Partner work and various examples will help these students to get to the level necessary for this activity Above Proficiency: These students will get to test their observational abilities along with deductive reasoning to find out what these terms mean Approaching/Emerging Proficiency: Students that are approaching proficiency will be encouraged to look for answers not directly given to them as they make observations, helping them further develop problem solving skills Modalities/Learning Preferences:	
Objective(s) By the end of the lesson, students will prove an understanding of various object's effects on light by conducting an experiment and making observations Bloom's Taxonomy Cognitive Level: Knowledge, comprehension, application, analysis			
Classroom Management- (grouping(s), movement/transitions, etc.) There will be a lot of movement around the classroom, which is encouraged. However, students will be expected to sit for a while and contribute to discussion.		Behavior Expectations- (systems, strategies, procedures specific to the lesson, rules and expectations, etc.) since we will be moving around the room and interacting with objects, it is very important that students take care of and respect the classroom materials.	
Minutes	Procedures		
	Set-up/Prep:		
2 min	Engage: (opening activity/ anticipatory Set – access prior learning / stimulate interest /generate questions, etc.) <ul style="list-style-type: none"> ● “Okay class, for today’s activity, there are three words we need to know. Those words are opaque, transparent, and translucent. I am going to pull up images that help show us what these words mean. But before that, Does anyone have any ideas about what each word means? What if I told you they all have something to do with light? turn and talk about what you think they could mean!” <ul style="list-style-type: none"> ○ Pull up the images on google docs 		
5-10 min	Explain: (concepts, procedures, vocabulary, etc.) <ul style="list-style-type: none"> ● “All right class, eyes back to me. Let’s look at this first image, it has objects that are opaque, can everyone say that with me? I want you all to observe these items and raise your hand when you can tell me a characteristic these items all have.” <ul style="list-style-type: none"> ○ record these on the board ● “Now, let’s look at these items. These are all translucent. We are going to do the same thing, think for a bit, then raise your hand when you can tell me a characteristic of these objects. 		

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	<ul style="list-style-type: none"> ○ record these on the board ● “For the last example, We are going to look at items that are transparent. What do we notice about these items?” <ul style="list-style-type: none"> ○ record these on the board ● “These are all great observations! Lets actually test all these observations out, and make even more!”
<p>10-15 min</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"> ● “Here’s what’s going to happen now, I am going to draw names from the sticks to pair you up with your observation partner. You are going to get this worksheet that has space for you to draw and put the name of 3 objects of each type. With your partner, making sure each person gets a chance to draw and write, I want you to go around the room and find and record these items you find.” ● “I brought two items of each category, opaque, translucent, and transparent, that I will put on the table. You may only use 2 of those on your sheet, the other 7 have to be found around the room.” ● “Once I pull your names and give you your paper, go ahead and start! You’ll have about 5-6 minutes for this, then I will call you back. Does anyone have any questions? If you have any questions later please ask me. <ul style="list-style-type: none"> ○ take this time to interact with students and help as needed. After the search time is up call the students to the carpet. ● “Could everyone please come back to the carpet? Now that we have our objects, I want us to see what effect these different types of objects have on light. I want you to go back through those items, this time with flashlights! You should shine those lights on each of your objects to determine the effect. This will work best if we dim the lights in the room a bit, and you make sure to put your object in front of something flat, like the wall or your clipboards.” ● “Look for observations like if the light goes through the object and shows up clearly, or if it goes through but is a bit blurry. Maybe it doesn’t show up at all. These are the kinds of things I want you to look for. Write down the observations on the back of your paper and make sure to write down what object each observation is for. Now, once I come give your group a flashlight go ahead and start. I will call you back to the carpet when time is up.”
	<p>Review (wrap up and transition to next activity):</p> <ul style="list-style-type: none"> ● “Lets have everyone gather back at the carpet!” ● “Can some groups tell me the observations they made for their objects before we wrap up and put a final definition on each of our terms? <ul style="list-style-type: none"> ○ take responses from a few students ● “Great observations! Let’s finish fully defining these terms, then I will let you go. <ul style="list-style-type: none"> ○ Opaque- Opaque objects block light from traveling through them. ○ Translucent- Translucent objects allow some light to travel through them. ○ Transparent- When light encounters transparent materials, almost all of it passes directly through them. ● “That is all I have for you today, thank you for participating! Let’s get ready for the next lesson!”
<p>Formative Assessment: (linked to objectives) Progress monitoring throughout lesson- clarifying questions, check-in strategies, etc. I will be able to monitor students throughout the lesson and check in</p>	<p>Summative Assessment (linked back to objectives) End of lesson: After the lesson I will collect the student’s worksheets to see if their observations were accurate and how in depth they were</p>

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during their observations to see what they are noticing and learning

Consideration for Back-up Plan:

If applicable- overall unit, chapter, concept, etc.:

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