

## Grade 6 | Scientific Thinking - Light | Session Time: 50mins (17<sup>th</sup> November, 2016)

Topic	Light-Behaviour of light
Objective (Why is this of Value?)	Exploration session with a torch and 2 white clothe pieces per group to understand the behavior of light.(total 6 groups)
Vocabulary	Image,blurry,shadow,source,screen,distinct,clear,beam of light,object
LOs	Hands on....

### How will I show Value?

Pre work / Post work		Time Mins
	Ask Moin sir for resources Ask students to wear hat of a scientist	
Learning roadmap:	Recap- Ask them the character traits of Einstein(balance of content and Character)	5
	Make groups of 4 students	5
	Distribute the resources	
	Ask the students to explore for 25 minutes with the resources the way they <b>want</b> .	
	Ask them to record minimum 2 observations per group and illustrate their observations( <b>need</b> )( <b>note taking skills</b> )	30
	They can have more obs and illustrations	
	Each gp.shares their obs.	
	Everyone identifies the common patterns emerging	20
	All the students record it.	
	Teacher shares vocabulary like, image, screen, object and source of light	10
	Close the loop with content (behavior of light) and character (behavior in the session).	
	Share BA expectations	10

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<b>Setting the tone</b>	Make sure that children have the <b>cognitive, physical, social</b> and <b>emotional</b> presence for learning. Also, prepare the <b>space/ board</b> to facilitate learning.	
<b>Hook/Reconnect</b>	Reconnect to the article read they had	
1. Teacher-facilitation time  2. The alignment pause ( <i>do you see</i> )	Teacher observes them in gp work.  Ensures students are mindful of what they do and express	
<b>Optional</b> POU (How will I add Value?)	<i>Skills of exploration,questioning,recording through speaking , writing and sharing their observations in the grade</i>	
1. Note taking/  2. a. Question Protocol/	Students record their explorations, new vocabulary  Gp.dynamics, speaking for effect, doing what is needed	
<b>Second teacher facilitation time</b>	To clarify doubts, bridge gaps in understanding and go ahead.	
<b>Closing the loop</b>  Teach   Reach	Behaviour of light  Behaviour as a scientist and group member  BA-Write about the session in the form of a Science lab journal.  Task,Observation in bullets,illustrations,hypothesis,conclusion.	

<p><b>Reflections</b></p> <p>1. Sessions went as per plan (Yes or No? If No, why?)</p> <p>2. Which students need attention?</p>	<p>Yes, There was engagement.</p> <p>Students adhered to time and gp dynamics was evident.</p>	
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## BOARD WORK

<p><b>DATE</b> 17/11/16</p> <p><b>TOPIC</b> POI - Behaviour of light</p>	<p><b>IS OF VALUE (RELEVANCE)</b></p> <p>when you see, you forget; when you do, you learn</p>							<p><b>LANGUAGES OF LEARNING</b></p> <p>Exploration</p> <p>Hands on, gp activity</p>													
<p>☺ GP Presentation</p> <p>Curiosity ☺</p> <p>Mindfulness ☺</p> <p>gp dynamics ☺</p> <p>Note taking ☺</p> <p>☹</p>	<p><b>SHOW VALUE (GUIDED INQUIRY)</b></p> <p>EXPLORE Behaviour of light. (content)</p> <p>How did you behave (character)</p>	<p>gp1 - Garv</p> <p>gp2 - Saumya</p> <p>gp3 - Ashutosh</p> <p>gp4 - Ashwi</p> <p>gp5 - Priam</p> <p>gp6 - Poachi</p>	<p>light don't pass through all objects</p> <p>Thick objects don't allow light to pass through</p> <p>light reflects</p> <p>Shadow formation is big/small when source of light is near or far</p> <p>Dust Particles are seen</p>			<p>light on a colourful object, light becomes colourful.</p> <p>Thick cloth don't allow light to pass through.</p> <p>If we cover the source of light, light spreads on the object you like to cover.</p> <p>There are layers of light around light source.</p>			<p>closer the source of light, shadows appear bigger.</p> <p>If obj is behind the screen, we can see their shadow on the screen.</p> <p>(Shadow Puppet)</p> <p>If you put source of light under the cloth and in the sunlight, shadow of the object light under source.</p>			<p>Thick obj. do not allow light to pass through.</p> <p>Shadows are bigger when source of light is closer, and vice versa.</p> <p>your palm can be seen as red when you put light under it.</p>			<p>light reflects on mirror and obj. are visible</p> <p>Thin layer of cloth used was transparent</p> <p>Thick cloth is translucent (light passes less)</p> <p>light on the surface had bright spot around, rest dimmer.</p>			<p>light reflects</p> <p>Multi layers around it</p> <p>light passes through thin cloth. less</p> <p>light passes through thick cloth.</p> <p>If light is in the centre of the obj the shadow gets blurred.</p>			<p><b>KNOWLEDGE (FACTS VOCABULARY &amp; DEFINITION)</b></p> <p>opaque</p> <p>transparent</p> <p>translucent</p> <p>opaque</p> <p>Shadow, Source</p> <p>Resources: touch, white cloth, big room, white board, markers, mirror etc.</p>
<p><b>AGENDA FOR THE DAY</b></p> <ul style="list-style-type: none"> <li>- Conglom</li> <li>- SA-Thinking BREAK</li> <li>- LM-Thinking</li> <li>- library</li> <li>- LUNCH</li> <li>- consolidation</li> </ul>	<p><b>ADD VALUE (BA, POU)</b></p> <p>POI- Read notes given</p> <p>LMT- BA is sum of integers in notebook ver. any 1 out of 50</p>						<p><b>ADD VALUE (BA, POU)</b></p> <p>POI- Read notes given</p> <p>LMT- BA is sum of integers in notebook ver. any 1 out of 50</p>														