

Grade: 1st

Strand: Physical Science

Standard/Topic: SCI-01.PS4.04

Design and build a device that uses light or sound to solve the problem of communicating over a distance.



		Sample Activities
Score 4.0 Complex	In addition to Score 3.0, in-depth inferences and applications that go beyond the target content.	
	3.5 In addition to target performance, in-depth inferences and applications with partial understanding	
Score 3.0 Target	The student will: ● design and build a device that uses light or sound to solve the problem of communicating over a distance The student exhibits no major errors or omissions.	● Mystery Science: Lights and Sounds *Lesson 5- Light, Communication, and Engineering *Lesson 6- Lights, Sounds, and Communication ● Design a device that allows people to communicate over a distance- such as signals through light flashes, a paper cup and string "telephone," or a pattern of drum beats- and construct the device using tools and materials ● Create musical instruments from recycled materials- talk about how these can make music but how else could you communicate with your instrument?
	2.5 No major errors or omissions regarding the simple content and partial understanding of the target content	
Score 2.0 Simple	There are no major errors or omissions regarding the simpler details and processes as the student: ● The student will recognize or recall specific terminology or synonyms, such as: ○ communicate, construct, device, distance, light, pattern, signal, sound, vibration ● The student will perform basic processes, such as: ○ identify different devices that use light or sound to communicate However, the student exhibits major errors or omissions regarding the more complex ideas and processes.	● Experiment with sounds https://musiclab.chromeexperiments.com/Experiments ● Ask students "what can vibrate and make a sound in the classroom?" Use Voicethread to record their answers. ● Identify objects/devices that use light and/or sound to communicate (stoplights, railroad crossing arms, fire alarm, police lights/sirens, car horns, etc.)
	1.5 Partial understanding of the simple, but major errors or omissions regarding the target content	
Score 1.0	With help, partial understanding of the simple and target content	
	0.5 With help, partial understanding of the simple content, but not the targeted content	

