Mini Lesson Plan

Learning Segment Focus: _____Light Energy_____ Lesson __3__ of __6___

Course & topic addressed: ___Physical Science/Energy___ Date __12/13/2020__

Grade __4___

Students Outcomes

Specific leaning objectives for this lesson.	Students will explain that light is a form of energy and can be characterized as a wave. Students will understand why the different colors of the spectrum represent light waves vibrating at different frequencies. Students will be able to describe reflection and refraction of light waves.
Justify how learning tasks are appropriate using and example of students prior academic learning.	This lesson will allow students to use their personal experiences with light as a guiding tool to learn new information.

State Academic Content Standards

List the state academic content standards with which this lesson is aligned. Include abbreviation, number & text of the standard(s).	4-PS3-2 Make observations to provide evidence that energy can be transferred from place to place by sound, light, heat, and electric currents.

Key Vocabulary

What vocabulary terms/content specific terminology must be addresses for students to master the content.	Light, wave, opaque, translucent, transparent, reflection, refraction, absorption, image, electromagnetic wave, convex lens, concave lens, illuminated, luminous, white light, prism, wavelength, primary colors of light.

Materials

Materials needed by teacher for this lesson. (such as books, writing materials, computers, models, colored paper, etc.)	Paper, pen, computer, projector, mirror, rock, glass cup, silver tin (metal), picture frame, book, sun or light, internet, white board, dry erase markers, magnifying glass
Materials needed by students for this lesson. (computers, journals, textbook, etc.)	Pencil, paper, internet, computer, or tablet

Lesson Timeline with Instructional Strategies & Learning Tasks

Amount of Time	**Teaching & Learning Activities (Bulleted Style)**	**Describe what the teacher will be doing and/or students. (Make it detailed)**

10 minutes	**Introduction:** • Students will be given 5 vocabulary words that they are to write down • We will discuss what they think light energy is and students will give what they think are examples	I will write the 5 vocabulary words down for the students along with the definitions, so they may write them down and put them into their folders. I will then ask the students that they think light energy is and the ask for examples.
20 minutes	**Introduction:** • Students will begin by looking at pictures of what light energy is • If the sun is shining students will gather at a window and help conduct an experiment using the sunlight. (If it is not sunny, we will improvise using artificial sunlight) • Students will use a magnifying glass, mirror, rock, glass cup, silver tin (metal), picture frame, book to see if the light reflects or refracts. • The students will write down their answers. • The student will then get their laptops or tablets out and use an online tool called flip grid. • The students will tell of their findings and can even demonstrate what they are talking about by having a friend help.	I will show the students pictures of light energy. As I am showing the pictures, I will explain to the students what is happening in that picture. I will then have all of my students gather at the window to experiment with light reflection and refraction. Each student will grab and item, hold it up to the sunlight to see what the reaction is. I will ask the students to record their findings on a piece of their notebook paper. Once everyone has had a turn at the window, I will ask that they get out their laptop or tablet and open up flip grid. I will then ask the students to make a video explaining what they did and what their findings were. They may have someone help them if they would like to demonstrate the experiment.
10 minutes	**Closure:** • Students will discuss how light energy affects our community and our lives. • Students will be given the chance to ask ay questions.	I will ask for volunteers to share their thoughts on how light energy affects us. I will encourage everyone to share their thoughts, but I will not force anyone to answer I will give a little bit of my thoughts and then I will move on to answer any questions.

Accommodations/Modifications

How might I modify instruction for: *Remediation?* *Intervention?*	For my student that need modification, I will have worksheets with an example of light energy, the vocabulary, and the definitions. I will

IEP/504? *LEP/ESL?* (All students who have plans mandated by federal and state law.)	also have extra objects, so they will have more things and time to experiment with.

Technology Connections

Technology that will be sed during the lesson plan. (Bullet Style)	Computers, flipgrid, google