

Name _____ Date _____ Class _____

Light in the Ocean

1. Use the layers of blue cellophane to simulate diving deep into the ocean. As you add layers, indicate which colors are visible and which are not. Use your pen or pencil to black out the cells once their colors are no longer visible.

Layers	Black	Red	Orange	Yellow	Green	Blue
1						
2						
3						
4						
5						

2. Look at **Figure 1: Light Penetration in the Ocean.**

- What do you observe?

- Which of the above colors penetrates the deepest? The shallowest?

Deepest:

Shallowest:

3. Now look at **Figure 2: Visible Light Region of the Electromagnetic Spectrum.**

- What do you observe?

- Which color has the shortest wavelength? The longest wavelength?
Shortest Wavelength:

Longest Wavelength:

- Which color is the highest-energy wave? How do you know?

4. Construct an explanation about why deep sea animals are sometimes colored red. Use your observations from the “Light in the Ocean” simulation and Figures 1 and 2 to support your thinking.

Claim:

I think deep sea animals are sometimes red because . . .

Evidence (reference the simulation and Figures 1 and 2):

I think this because . . .

Reasoning:

My evidence supports my claim because . . .
