Name: Date: Period:

***Light Absorption by Pigments***

*Read the following questions. Use your light absorption graphs to complete each question.*

1. Which wavelength of light does chlorophyll a absorb best? \_\_\_\_\_\_\_\_nm

2. Which wavelength of light does chlorophyll b absorb best? \_\_\_\_\_\_\_\_nm

3. Which wavelength of light do carotenoids absorb best? \_\_\_\_\_\_\_\_nm

4. Which **color** light is not absorbed well by these pigments? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

5. Which two colors of light have the highest absorption? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

6. You are in a competition to grow the largest flower, but you can only use colored light, which is best and why?

7. You want to sabotage your opponent in this competition, what color light would you switch with theirs and why?



8. Use the **Evidenced Based Explanation Rubric** (claim, evidence, and reasoning) to answer the following question:

*MUST BE SPECIFIC*

Why is there more than one pigment in a plant?

