Design a Better Model Assignment

Project Instructions

Read and follow the directions closely to complete this assignment:

1. With your group, assess the utility and limitations of the molecule set that you used to model photosynthesis and cellular respiration. Consider these questions as you brainstorm with your group:
   a. Think about and list the ways in which the molecule set helped you to understand the processes of photosynthesis, cellular respiration, the relationship between the two processes, and the law of conservation of matter. How did the molecule set help you understand each concept?
   b. What problems did you encounter when using the molecule set?
   c. Which skills or knowledge does a person need in order to use the molecule set effectively?
2. Your task for this assignment is to design a better model than the existing molecular modeling set to teach the concepts that you have just learned about. Things to consider:
   a. How could you improve the existing molecular modeling set? In what ways?
   b. What would you change about the modeling set? What features would you change and why?
   c. Think about the capabilities that a person would need in order to use the molecule set. How would you design your model to accommodate individuals who may lack the physical capabilities to use it?
3. Create your molecule model design using recycled materials that meet your design criteria. Follow the "Design a Better Model Project Rubric" and the instructions in this handout to assist you.
4. First, make a drawing or sketch of your design. Be sure to label the parts including the materials used to make the model set, the cost of the materials, dimensions (measurements) of the model parts, etc.
5. Create a poster advertisement to sell your model set, design, or idea to teachers. Your poster should not exceed 12"x18".
6. Complete the "Project Reflection" part of the assignment.

Name: _____ Date: _____ Class: _____

Project Reflection

1. What was your favorite part of this project? Why?

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2. What did you learn by completing this project?

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3. What was most challenging about this project? Why?

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4. What do you think you were most successful at on this project?

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5. What do you think you could do to improve this project?

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