Seventh Grade Science  
Homeostasis and Cell Processes Quiz

Choose the letter of the best answer.

1. In one type of cell division, a single cell forms two new cells. This process is called mitosis. What is a reason that human skin cells frequently undergo mitosis?

A. to get energy for the body

B. to prevent bruises on the body

C. to replace dead or damaged skin cells

D. to replace dead or damaged muscle cells

2. Cells must be able to perform certain functions in order to survive. Which of the following must all cells do to survive?

A. obtain energy

B. absorb wastes

C. utilize oxygen

D. continue growing

3. Organisms can respond to changes in their environment in order to maintain a balance, called homeostasis. What does a tree do to maintain homeostasis during the winter months?

A. shivers

B. hibernates

C. absorbs sun

D. loses leaves

4. Draw a picture below that shows what happens to a cell as it experiences diffusion. Label your drawing.

How will the molecules in this illustration move as a result of diffusion?

A. into the cell

B. out of the cell

C. into another cell

D. to the external environment

5. Homeostasis is necessary for a cell to survive. What is the definition of homeostasis?

A. the elimination of wastes

B. the division of cells to form new cells

C. the maintenance of a stable internal environment

D. the process by which energy from the sun is used to make food

**Vocabulary**

6. In your own words, define homeostasis.  
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7. In your own words, define endocytosis.

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8. What is the difference between passive transport and active transport? Why is the difference between passive transport and active transport important?   
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9. List four things that cells do to maintain homeostasis.

10. What happens during mitosis?  
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11. How do the cells in your body get energy? (Write a short paragraph in complete sentences.)  
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12. Draw a bar graph in the space below. Show how the amount of green pigment and chlorophyll, differ from summer to fall?

13. Draw a bar graph below that depicts how you think the change in chlorophyll levels is a response to changes in the length of day from summer to fall?

14. Why is homeostasis important for cells as well as for an entire organism? Summarize the evidence to support your claim and explain your reasoning. (Write a short paragraph in complete sentences).  
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**Self Assessment:** On a scale of 1-5, rate your level of confidence on the leanring targets. 5 means that you could teach the learning target to another student, 1 being that you do not understand what the learning target is asking you to do.

**I can identify the basic characteristics and mode of reproduction of prokaryotic or eukaryotic cells that classify them in the currently recognized kingdoms.**

1 2 3 4 5

Explain why you gave yourself this score. Think your strengths and weaknesses with this target.

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**I can construct an explanation of how the cell structures work together to allow the cell as a whole to carry out various processes.**

1 2 3 4 5

Explain why you gave yourself this score. Think your strengths and weaknesses with this target.

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**I can justify why each part of the cell is essential to my survival.**

1 2 3 4 5

Explain why you gave yourself this score. Think your strengths and weaknesses with this target.

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• Based on your responses, **circle** 1-2 classroom resources that are going to help you improve your scores on the learning targets this week:

My teachers Tutorial Re-reading the text and asking questions

Study notes Study vocabulary Complete error analysis w/ added support

***Teacher Feedback:*** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

***Student Response:*** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_