

Inside the Cell Section Review

Reviewing Terms

On the line provided, write the letter of the term from the list that matches each description.

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|----------|---|--------------------------|
| <u>F</u> | 1. found in the cytoplasm, this group of structures perform all of the various functions in the cell | a. nucleus |
| <u>E</u> | 2. fluid portion of the cell outside the nucleus | b. eukaryotes |
| <u>J</u> | 3. referred to as the "cleanup crews" of the cell | c. prokaryotes |
| <u>I</u> | 4. named after the Italian scientist who first identified it, this organelle transports and processes proteins and other macromolecules | d. chromosome |
| <u>C</u> | 5. small, single-celled organisms that do not contain nuclei | e. cytoplasm |
| <u>N</u> | 6. found only in plants, this organelle harvests the energy of sunlight | f. organelles |
| <u>D</u> | 7. organelle formed from chromatin as a cell divides | g. ribosome |
| <u>K</u> | 8. supporting framework of eukaryotic cells | h. endoplasmic reticulum |
| <u>A</u> | 9. organelle that contains nearly all of a cell's DNA | i. Golgi apparatus |
| <u>L</u> | 10. saclike structure in cells where materials such as proteins, fats, carbohydrates, and water are stored | j. lysosomes |
| <u>H</u> | 11. processor and transporter of proteins and other macromolecules, the name of this organelle means "network inside the cell" | k. cytoskeleton |
| <u>M</u> | 12. organelle that produces energy from chemical fuel | l. vacuole |
| <u>B</u> | 13. organisms made of cells that contain nuclei | m. mitochondrion |
| <u>G</u> | 14. made of RNA and protein, this tiny organelle is where proteins are assembled | n. chloroplast |

Reviewing Concepts

Complete each statement by underlining the correct word or phrase in the parentheses.

15. A cell is able to control and regulate the use of its DNA because the DNA is stored in the cell's (nucleus, ribosomes).
16. The (nuclear envelope, nucleolus) surrounds the nucleus.
17. The word *organelle* means ("tiny organism", "little organ").
18. Cells may have as many as (hundreds, tens of thousands) of ribosomes.

Inside the Cell Section Review (continued)

19. Rough ER has an uneven appearance because of the ribosomes located (on its surface) in its interior).
20. (Vacuoles, Lysosomes) use chemicals and enzymes that can break down almost any substance within the cell.
21. The microtubules and microfilaments of the (cytoskeleton, mitochondria) provide a tough, flexible framework of support for the cell.
22. Both mitochondria and chloroplasts provide cells with (waste removal, energy).

Reviewing Skills

Answer each of the following in the space provided. Use complete sentences as appropriate.

23. What is the basic distinction between eukaryotes and prokaryotes? (*Comparing*)
Prokaryotes → no structure or organelles
Eukaryotes → many structures inside (organelles)
24. Why is sunlight essential for the survival of plants? (*Drawing conclusions*)
Plants make their energy through photosynthesis and this process requires sunlight.
25. Why are mitochondria important to cells? (*Inferring*)
Mitochondria is the power house. It is where energy is produced through cellular respiration.
26. Analogies can be used to recall information about a topic. Create an analogical study guide for this section by completing the table provided. On the left, you should list terms from the section and on the right give an analogy for each term. You can use analogies provided in your book or create new ones. Two samples are shown.

| Term | Analogy |
|-------------|------------------------------------|
| Cell | Factory |
| Chloroplast | Power plant that uses solar energy |
| Nucleus | Factory manager |
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