Name _____ Date _____ Period _____

ZornScience
zornscience.org

Organelles

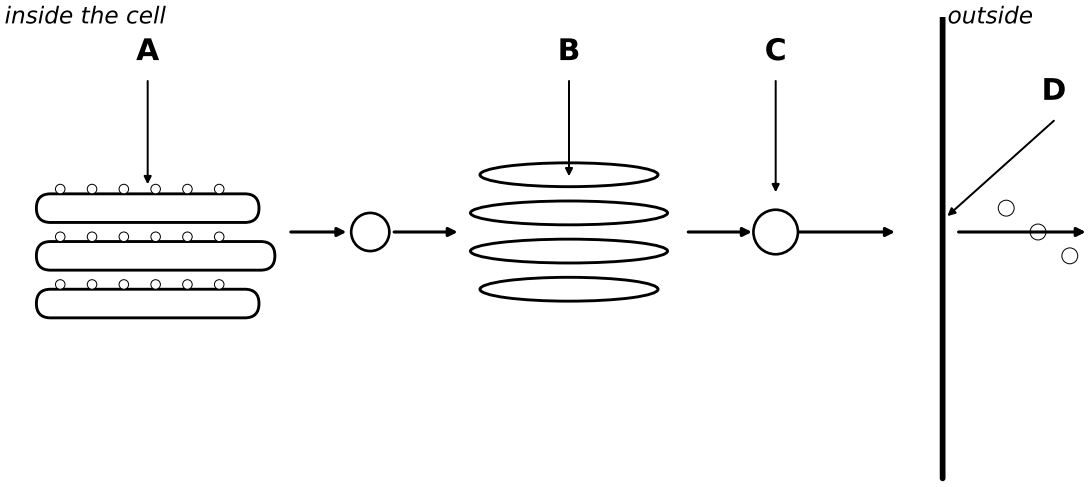
Biology

Answer in complete sentences. Use the tables, graphs, and drawings as evidence.

1. Name the organelle that does each job.

Job	Organelle
(a) Holds the DNA of the cell	
(b) Builds proteins by reading mRNA	
(c) Uses food and oxygen to make ATP	
(d) Modifies, sorts, and packages proteins	

2. The drawing shows the path of a protein that a cell releases. Name structures A, B, and C.



A _____ B _____ C _____

(d) What happens at D?

CC BY-NC-SA 4.0 | zornscience.org

3. Scientists gave a cell radioactive amino acids for a short time, then followed where the labeled protein went.

Time (min)	Rough ER (%)	Golgi (%)	Vesicles near membrane (%)	Outside cell (%)
3	85	10	5	0
20	25	60	15	0
40	8	30	62	0
120	3	5	22	70

Write a claim, evidence, and reasoning about the path the protein takes. Include the time each location peaked.

4. A poison stops the mitochondria of a cell. Predict what will happen to the cell's ability to build and move proteins. Explain your prediction.

CC BY-NC-SA 4.0 | zornscience.org