



Cell Size and Diffusion Worksheet

Cube	Surface Area (cm ²)	Volume (cm ³)	Surface Area- To-Volume Ratio	Diffusion Depth (mm)	Diffusion Rate (mm/min)
1 cm					
2 cm					
3 cm					

Name

Complete the following:

1. Draw the cross section of each cube to scale after soaking in the hydrochloric acid solution (HCl).

- 2. What evidence supports the hypothesis that hydrochloric acid solution diffuses into the cubes?
- 3. What happens to the diffusion rate as a cell gets larger?
- 4. What happens to the surface area-to-volume ratio as a cell gets larger?
- 5. Propose a hypothesis to explain why large organisms have developed from more cells rather than larger cells.

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