

DIFFUSION AND OSMOSIS

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Instructions

Watch the video, and answer the following questions:

1. Define diffusion.												
2. Explain what is meant by the phrase “steep concentration gradient”.												
3. Look at the statements below. For each one draw a tick or a cross to indicate whether the statement is true or false. <table border="1"><thead><tr><th>Statement</th><th>✓ or ✗</th></tr></thead><tbody><tr><td>Particles remain still unless there is a concentration gradient present.</td><td></td></tr><tr><td>Particles move at random.</td><td></td></tr><tr><td>Increasing the temperature increases the speed of particle movement and therefore the rate of diffusion.</td><td></td></tr><tr><td>A steeper concentration gradient results in a slower rate of diffusion.</td><td></td></tr><tr><td>A shorter diffusion pathway results in a faster rate of diffusion.</td><td></td></tr></tbody></table>	Statement	✓ or ✗	Particles remain still unless there is a concentration gradient present.		Particles move at random.		Increasing the temperature increases the speed of particle movement and therefore the rate of diffusion.		A steeper concentration gradient results in a slower rate of diffusion.		A shorter diffusion pathway results in a faster rate of diffusion.	
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4. Define osmosis												

[Questions continue on the next page]



5.

a) State what happens to an animal cell when placed in pure water.

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b) Explain why the same thing will **not** happen in a plant cell.

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6. When placed in a hypertonic solution, the cell membrane of a plant cell may pull away from the cell wall. What name is given to this process?

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