Cell Processes

Mr. Skirbst

Cell Processes

The ways in which cells obtain and/or use energy

5 Cell Processes

1. Metabolism

- ALL chemical activities that occur

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- **Ability to change energy from one form to another**

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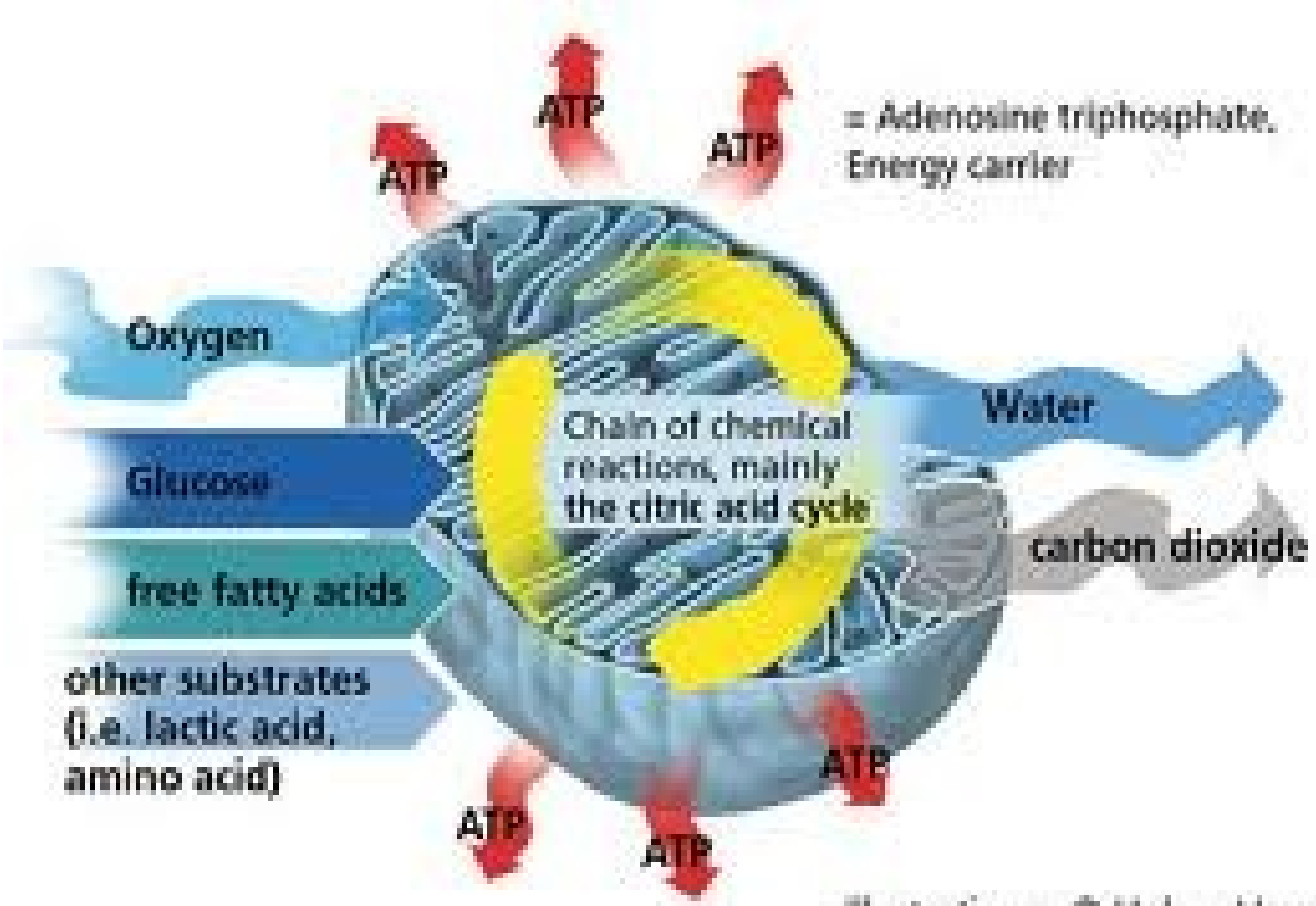
- Ability to change energy from one form to another

(ex. chemical – motion – heat)

1. Metabolism



2. Respiration

- Breaking down food (glucose) into energy

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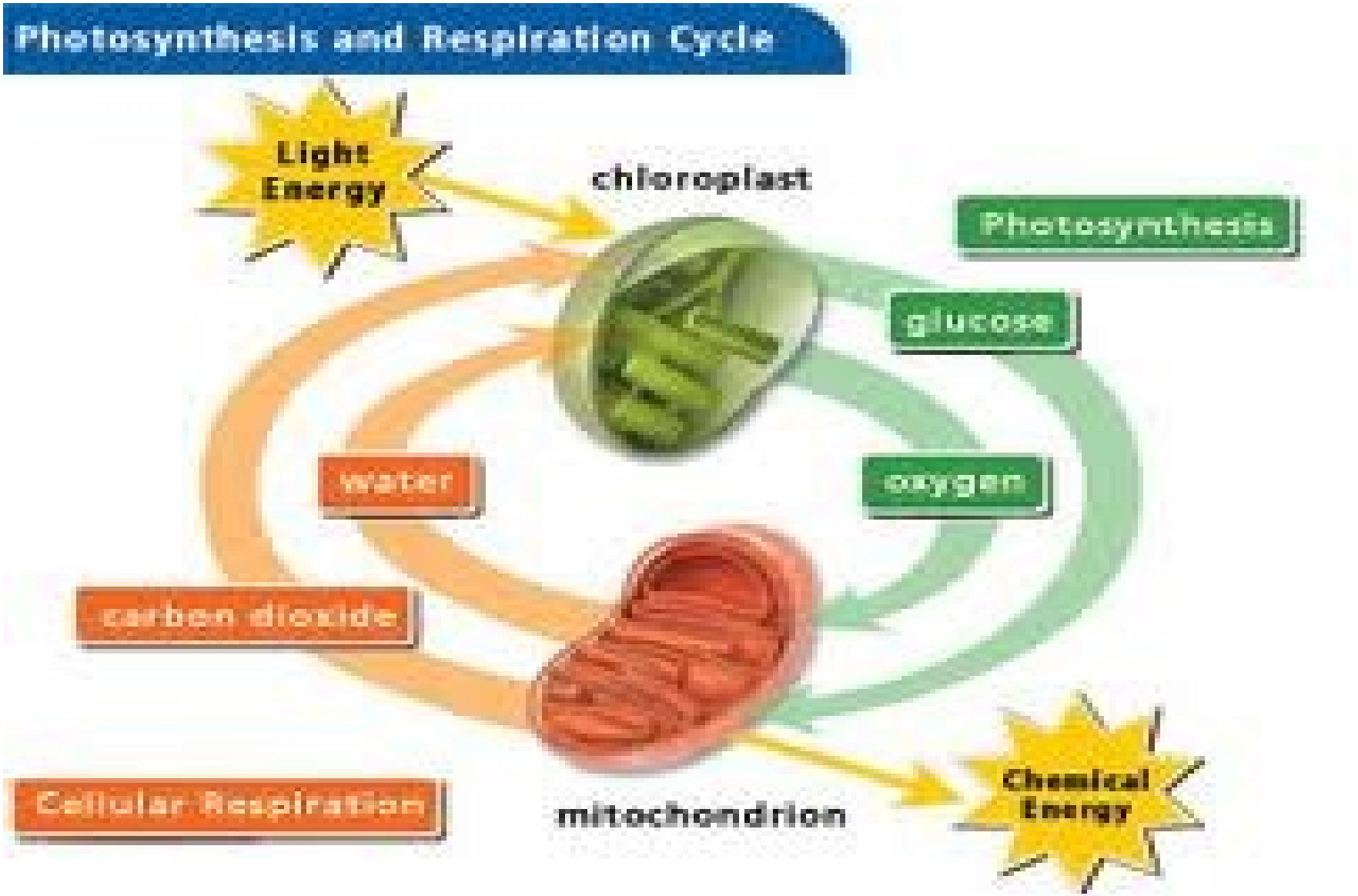
TWO kinds of respiration

2. Respiration



Two Kinds:

AEROBIC respiration:

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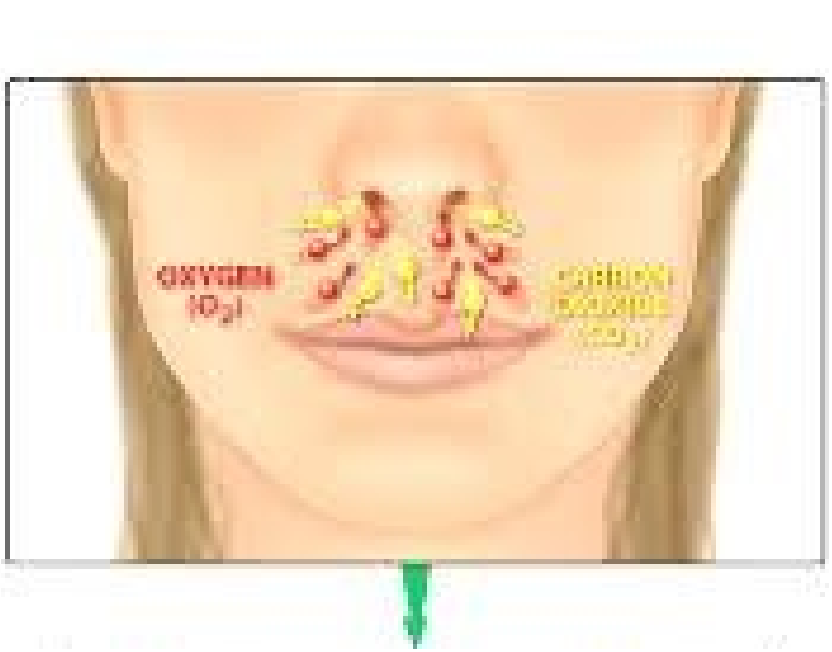
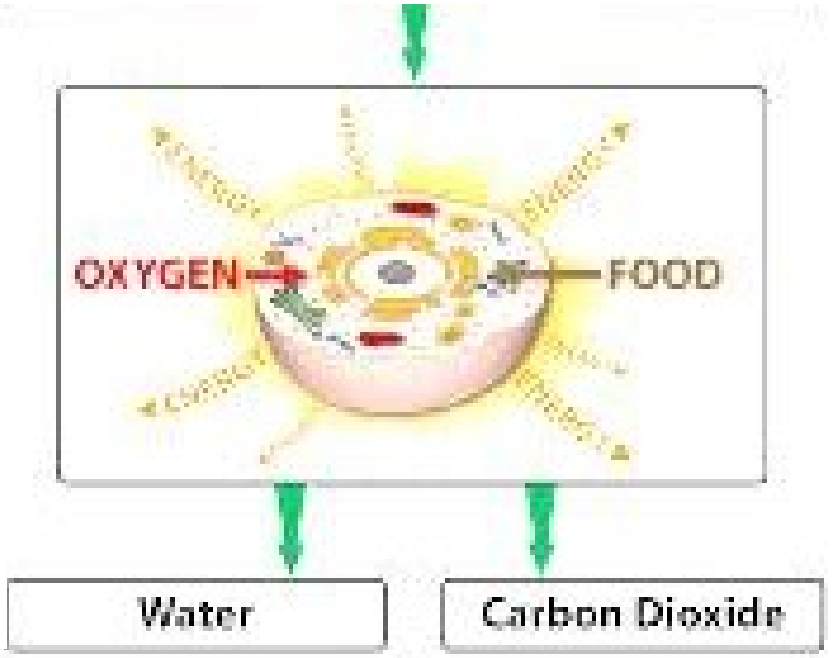
AEROBIC respiration:

- Requires oxygen (O_2)





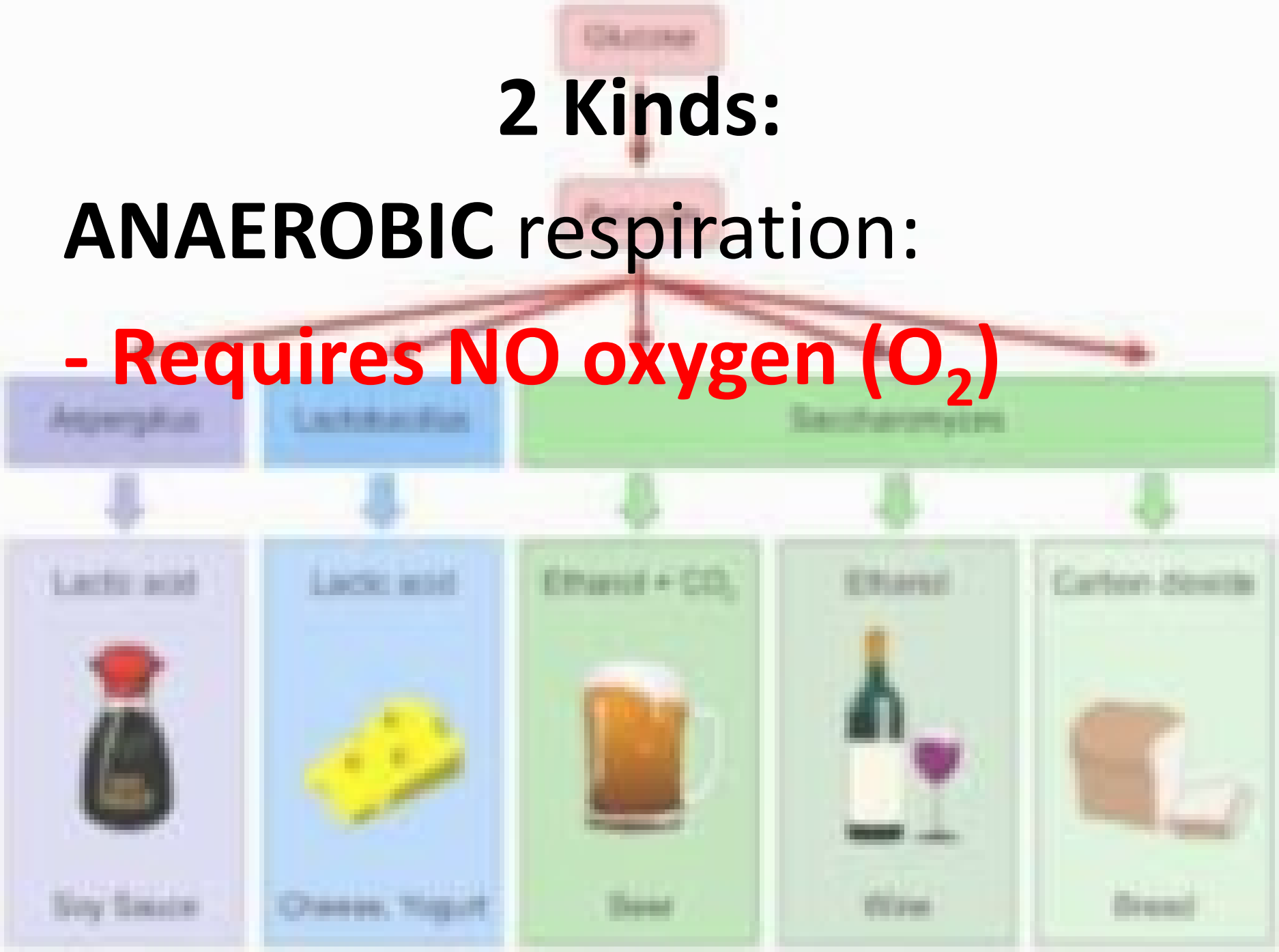
2 Kinds:

ANAEROBIC respiration:

2 Kinds:

ANAEROBIC respiration:

- **Requires NO oxygen (O_2)**



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ANAEROBIC respiration:

- Requires NO oxygen (O_2)

- Also called "fermentation"

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- **(ex. Yeast – alcohol)**

3. Diffusion

- Movement from higher to lower concentration levels

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- **Requires NO energy input**

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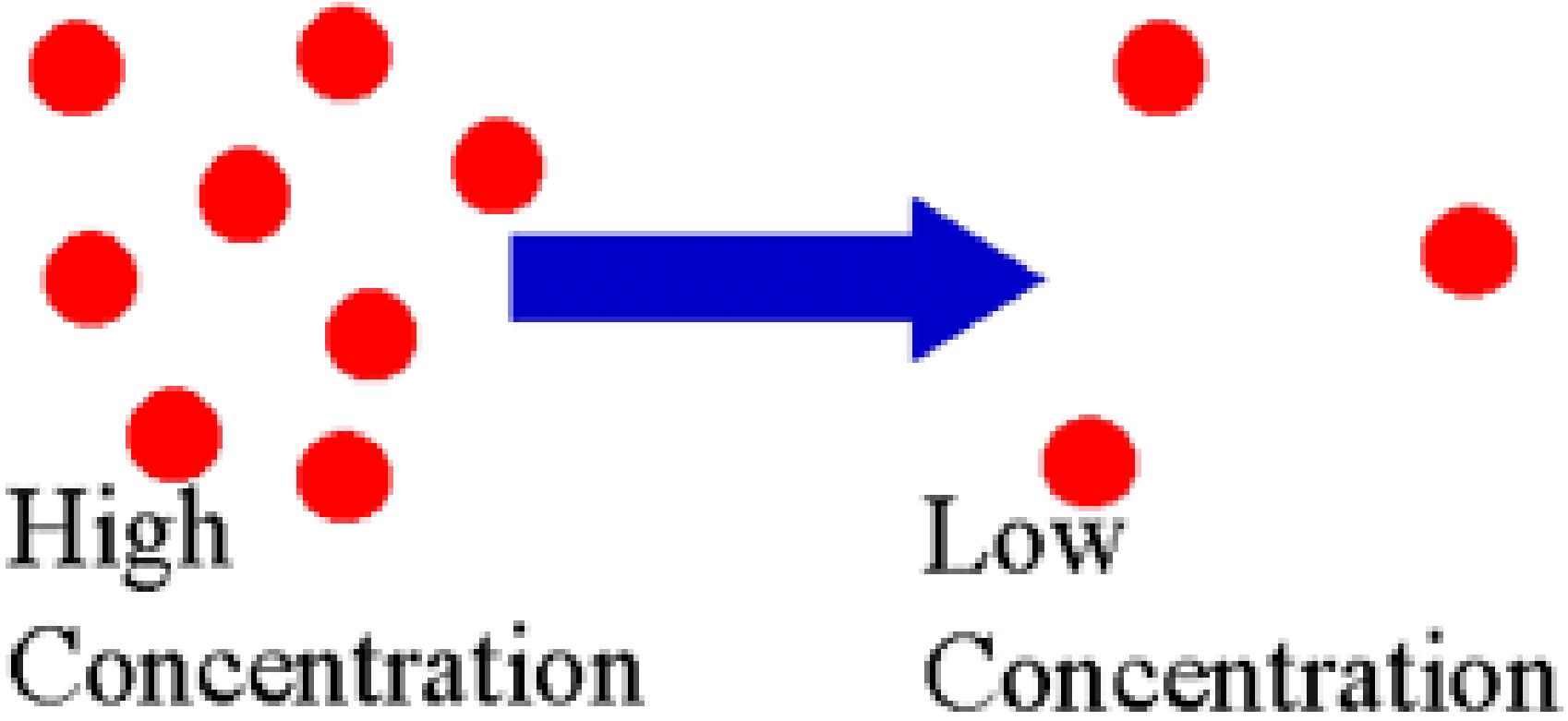
- Requires NO energy input
- **(ex. Odors, liquids, etc.)**

3. Diffusion



4. Osmosis

- Diffusion of water into or out of a cell

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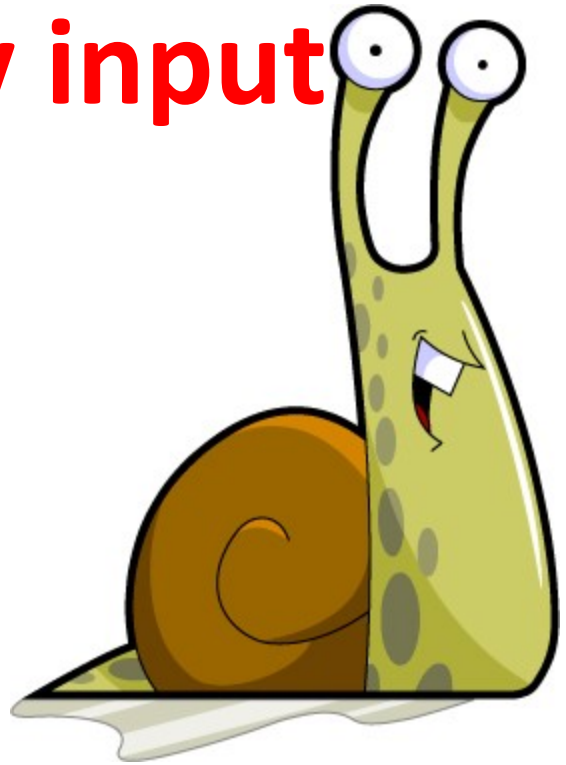
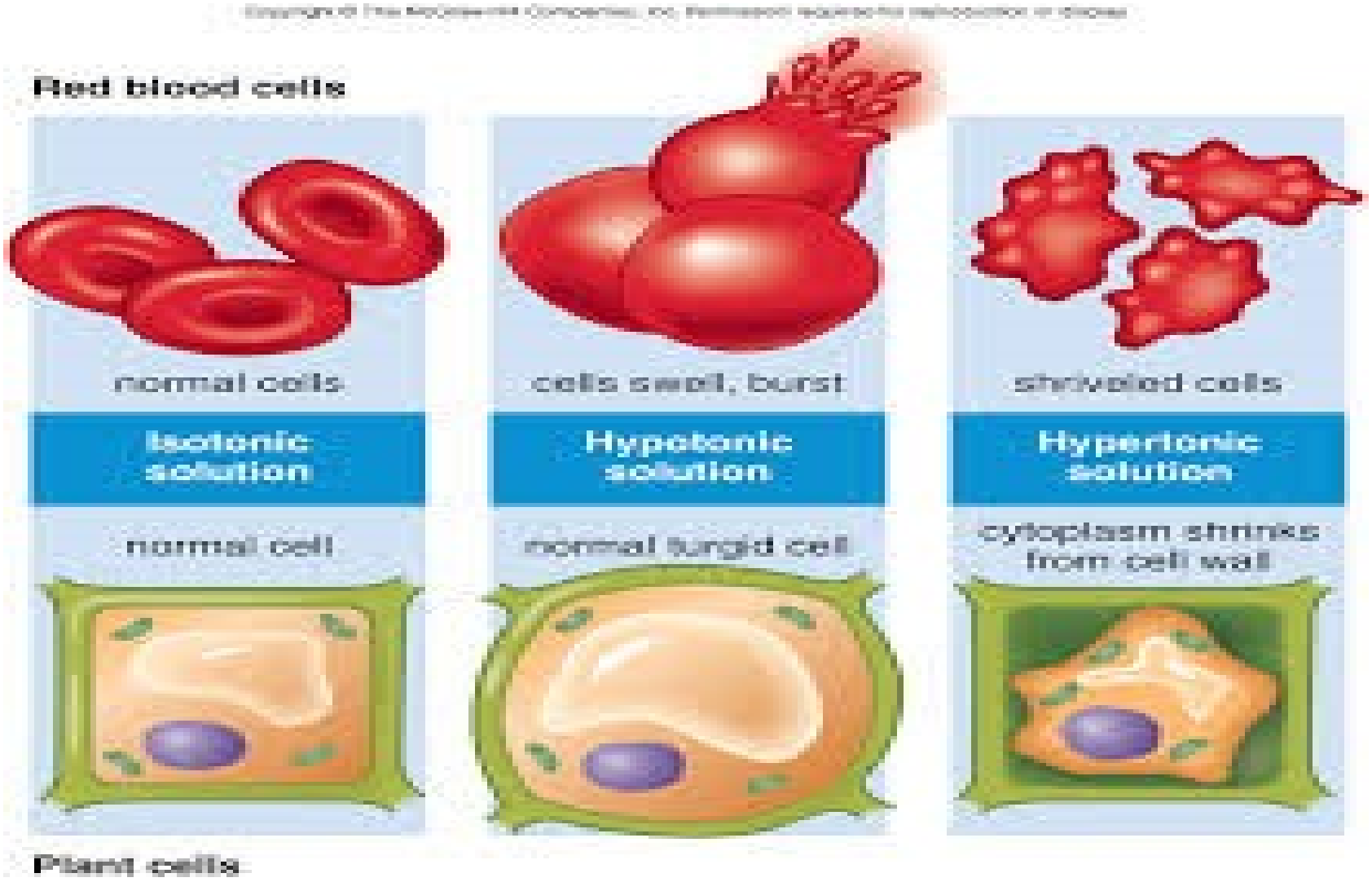
- **Requires NO energy input**



4. Osmosis


Red blood cells
normal cells
cells swell, burst
shriveled cells
Isotonic solution
Hypotonic solution
Hypertonic solution
normal cell
normal turgid cell
cytoplasm shrinks from cell wall
Plant cells

5. Active Transport

- **Movement of materials into or out of a cell (waste)**

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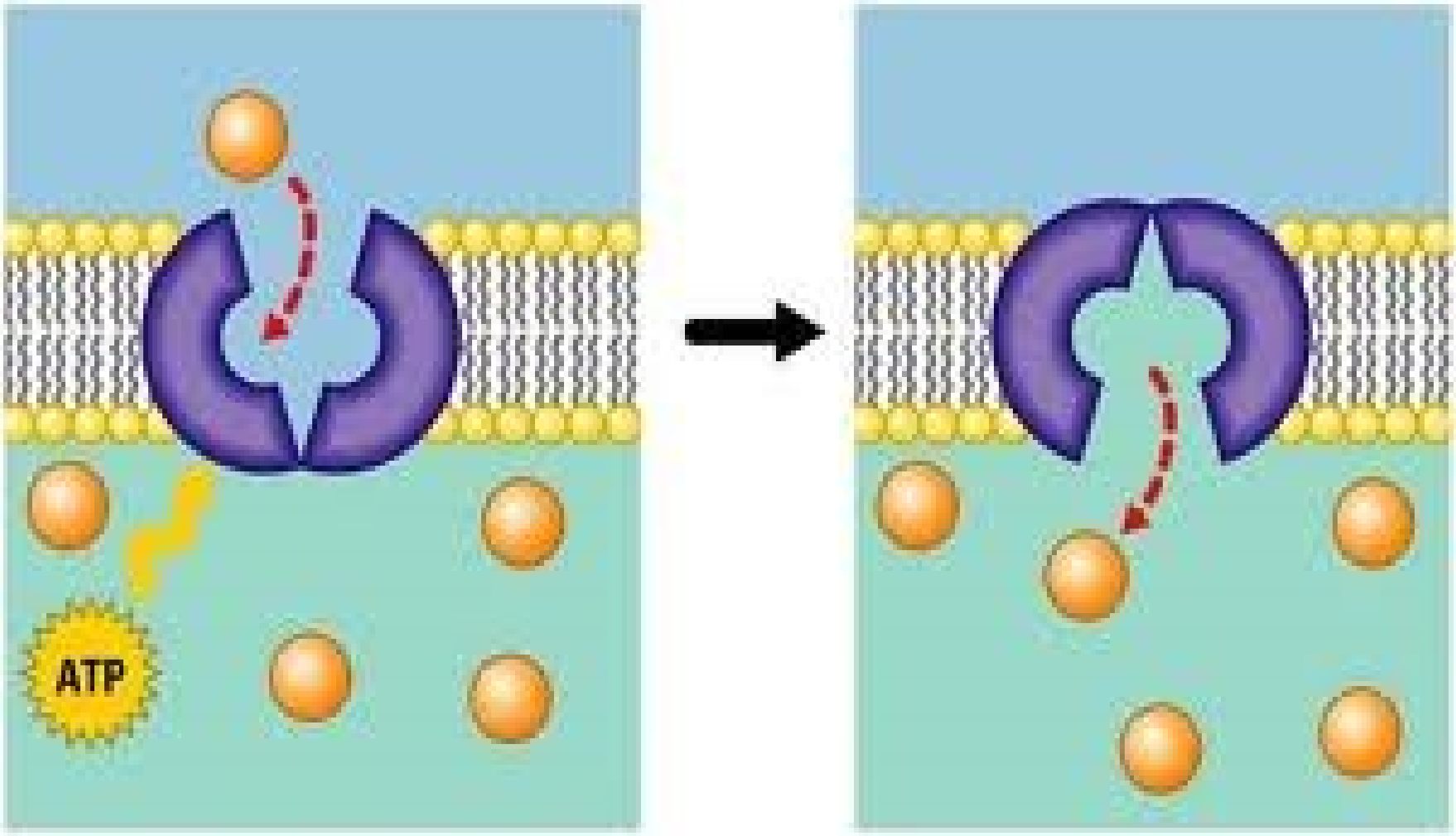
- **Requires energy**

5. Active Transport



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