

Solutions

Each answer shows the steps, then the **result**.

2.1

- A small, nonpolar molecule

2.2

- They are charged, so they cannot pass through the hydrophobic core

2.3

- Oxygen (or carbon dioxide)

3.1 C

- oxygen gas (small and nonpolar)

3.2

(a)

- Oxygen — it is small and nonpolar, so it crosses the hydrophobic core directly

(b)

- Glucose needs a transport protein

3.3

- The membrane lets some molecules (small, nonpolar) cross freely but controls or blocks others (large, polar, charged), so it selects what enters and leaves