

Full Higher Separate content. ★ = Higher Tier. ◆ = Separate Science only.

**Q1. Describe the mechanism of inhalation.**

**[3 marks]**

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**Q2. Explain how O<sub>2</sub> is transferred from alveoli to the blood.**

**[2 marks]**

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**Total: 5 marks**

**Q1 (3 marks)**

*Describe the mechanism of inhalation.*

- Diaphragm contracts → moves down [1]
- Intercostal muscles contract → ribcage moves up and out [1]
- Lung volume increases → pressure decreases → air flows in [1]

**Q2 (2 marks)**

*Explain how O<sub>2</sub> is transferred from alveoli to the blood.*

- O<sub>2</sub> concentration is higher in alveoli than in blood [1]
- O<sub>2</sub> diffuses down concentration gradient from alveoli into capillary blood [1]