

3. How does the respiratory surface in rabbits compare with the respiratory surface of insects? (3 marks)

Rabbits → lungs → folds on epithelium create large surface area.
Insects → tracheal system
↳ tubes create large surface area

4. Explain the mechanics of inhalation. Be sure to include information about the diaphragm, rib cage, volume, pressure, and direction of air. (5 marks)

- Air comes rushing in.
- Diaphragm contracts and moves down.
- Rib cage moves up and out.
- volume ↑
- pressure ↓

5. Identify and define the three volumes of air that make up an individual's vital capacity. (3 marks)

Tidal Volume - volume of air inhaled and exhaled while body is at rest.

Expiratory Reserve Volume - maximum amount of air that can be exhaled beyond normal exhalation.

Inspiratory Reserve Volume - additional volume of air that can be inhaled beyond normal inhalation.

6. Why does bronchitis affect a person's ability to breathe? (2 marks)

- Bronchioles become inflamed.
- Difficulty breathing.