

# Gas exchange

1. The plant hormone that triggers potassium ion withdrawal from guard cells
  - acetic acid
  - amino acid
  - abscissic acid
  - ascorbic acid
2. Withdrawing potassium ions from guard cells:
  - closes the stoma
  - reduces water potential
  - has no effect on the stoma
  - opens the stoma
3. The effect of adding potassium ions on the water potential in guard cells is:
  - the water potential is exactly zero
  - the water potential is unaltered
  - the water potential decreases
  - the water potential increases
4. Water flows in and out of the guard cells by the process of:
  - diffusion
  - electrolysis
  - osmosis
  - hydrolysis
5. Gases flow in and out of leaves by the process of:
  - diffusion
  - electrolysis
  - osmosis
  - hydrolysis
6. The ions transported into guard cells to close the stomata are:
  - $K^+$
  - $Cl^-$
  - $OH^-$
  - $Na^+$
7. Stomata close when guard cells:
  - contain no water
  - are not turgid
  - contain no potassium ions
  - are turgid
8. Stomata are situated in the gaps between:
  - xylem cells
  - phloem cells
  - palisade cells
  - guard cells
9. The inner walls of stomata are held rigid by:
  - sclerenchyma
  - palisade mesophylls
  - spongy mesophylls
  - cellulose microfibrils
10. When guard cells fill up with water they are said to become:
  - turgid
  - traumatized
  - turbid
  - turbulent