

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