

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