

AQA Biology GCSE

5.4 - Plant Hormones

Flashcards

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What is a tropism?

(biology only)



What is a tropism? (biology only)

A tropism is the response of a plant to a specific stimulus.



What is phototropism? (biology only)



What is phototropism? (biology only)

Phototropism is the response of a plant's shoot or root to light.



What is gravitropism? (biology only)



What is gravitropism? (biology only)

Gravitropism is the response of a plant's shoot or root to gravity.



What is auxin? (biology only)



What is auxin? (biology only)

Auxin is a hormone which controls the growth of a plant's shoots and roots. When auxin is unevenly distributed in a growing plant, the rate of growth will also be unequal.



How do plant shoots show positive phototropism? (biology only)



How do plant shoots show positive phototropism?

(biology only)

- One side of the shoot is in the light, causing auxin to move to the shaded side.
- At the shaded side, the cells are stimulated to grow - the shoot bends towards the light.
- As a result, photosynthesis can occur at a faster rate.



How do plant shoots show negative gravitropism?



How do plant shoots show negative gravitropism?

- In a horizontal shoot, auxin accumulates in the lower side due to gravity.
- Cells on the lower side of shoot grow more, causing the shoot to bend away from the direction of gravity.
- As a result, more light is usually available for photosynthesis.



How do plant roots show positive gravitropism?



How do plant roots show positive gravitropism?

- In a horizontal root, auxin accumulates in the lower side, causing cells to grow less.
- The root bends in the direction of gravity
- As a result, more water and nutrients are available to the plant roots.



What are gibberellins?



What are gibberellins?

Gibberellins are a type of plant hormone involved in seed germination.



What is ethene?



What is ethene?

Ethene is a type of plant hormone involved in cell division and ripening.



What are the uses of auxins?



What are the uses of auxins?

- Weedkillers - auxin causes cells to grow at a rapid rate, causing plant death.
- Rooting powder - auxin causes new plant to grow very quickly.
- Tissue culture - auxin promotes growth of roots and shoots.



What are the uses of ethene?



What are the uses of ethene?

- Control of food ripening in the food industry - allows fruit to be ripened just before they are sold.



What are the uses of gibberellins?



What are the uses of gibberellins?

- Termination of seed dormancy
- Promotion of flowering
- Increase of fruit size

