

WJEC Wales Biology GCSE

2.5 (n) - Plant Responses

Flashcards

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What are plant tropisms?



What are plant tropisms?

The growth response of a plant to a stimulus



What is positive tropism?



What is positive tropism?

The growth of a plant towards a stimulus



What is negative tropism?



What is negative tropism?

The growth of a plant away from a stimulus



What are the two main types of plant tropism?



What are the two main types of plant tropism?

Phototropism

Gravitropism



Define phototropism



Define phototropism

A plant's growth response to light



Are plant shoots positively or negatively phototropic? How does this affect shoot growth?



Are plant shoots positively or negatively phototropic?
How does this affect shoot growth?

- Positively phototropic
- Plant shoots grow towards the light



Are plant roots positively or negatively phototropic? How does this affect root growth?



Are plant roots positively or negatively phototropic?
How does this affect root growth?

- Negatively phototropic
- Plant roots grow away from the light



Define gravitropism



Define gravitropism

A plant's growth response to gravity



Are plant roots positively or negatively gravitropic? How does this affect root growth?



Are plant roots positively or negatively gravitropic?
How does this affect root growth?

- Positively gravitropic
- Plant roots grow downwards, towards gravity



Are plant shoots positively or negatively gravitropic? How does this affect shoot growth?



Are plant shoots positively or negatively gravitropic?
How does this affect shoot growth?

- Negatively gravitropic
- Plant shoots grow upwards, away from gravity



What are auxins?



What are auxins?

- A group of plant hormones involved in plant tropisms
- Control growth in plant roots and shoot tips



Where are auxins produced?



Where are auxins produced?

Root and shoot tips



How do auxins affect plant shoots?



How do auxins affect plant shoots?

They stimulate growth in plant shoots



How do auxins affect plant roots?



How do auxins affect plant roots?

They inhibit growth in plant roots



Explain how plant tropisms increase the chance of survival



Explain how plant tropisms increase the chance of survival

- They enable plants to respond to their environment
- Shoot growth towards the light maximises light absorption
- Root growth downwards increases the uptake of water and minerals from the soil and enables anchorage of the plant body to the ground

