

AQA Biology GCSE

RP8 - Plant responses

(Biology only)

Flashcards

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Describe how you would investigate the effect of light on the growth of newly germinated seedlings



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- Incubate seeds in 3 Petri dishes and allow them to germinate
- Place one dish in full sunlight, one in partial sunlight and one in complete darkness
- Measure the height of each seedling every day for a week and calculate the mean height for each day
- Plot graph of mean seedling height (y) against day (x)



Which group of seedlings would you expect to grow the most and why?



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The group in full sunlight - light is required for photosynthesis and these plants will not have light intensity as a limiting factor



What growth substance in plants is affected by light?



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Auxins - the distribution of auxins in seedling stems is affected by light. This impacts the seedling's direction of growth



Why is it necessary to find the mean height of the seedlings?



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Some seedlings may be much shorter/longer than others in the same dish - calculating a mean makes the values more representative and allows comparison between groups

