

## KS4 Photosynthesis and Gas Exchange Classroom activity pack

This pack contains a series of activities for you to complete with your class both before and after your visit to Kew.

You may choose to do all of the activities or just select one. Post-visit activities are intended to build on the learning from the educational session at Kew. Many of the resources can be used on a whiteboard or can be printed.



## KS4 Photosynthesis and gas exchange

Thank you for booking the KS4 Photosynthesis and Gas Exchange education session at Kew.

You can use the pre-visit activity to support your pupils' learning.

Ahead of your visit, your pupils could answer the question below. They can tell us about their answers when they come to Kew.



### Question:

Kew scientists are working in the Arabian Peninsula to collect and bank endangered desert plant species before they die out.

What would the conditions be like in this area? Suggest how plants could be adapted to survive in these conditions.

Why might it be useful for scientists to collect seeds from plants growing in these conditions? Suggest how this project could affect your life in the UK.

You could discuss with your students:

- The importance of plant adaptations to hot and dry environments for our food security, especially as our climate changes.
- The importance of safeguarding genetic diversity.

You can find more information about this Kew project at:

<https://www.kew.org/read-and-watch/empty-quarter-arabia-disappearing-plants>



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What would the conditions be like in the Arabian Peninsula? Suggest how plants could be adapted to survive in these conditions.



Why might it be useful for scientists to collect seeds from plants growing in these conditions? Suggest how this project could affect your life in the UK.

