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| **What will we be learning?****Year 12 Plant Transport** | **Why this? Why now?**Previous Learning Future Learning Enquiry ProcessesAnalyse Patterns, Draw conclusions, Present data, Justify opinions, Collect data, Present data, Plan variables | **Key Words:****Cohesion-tension theory****Companion cell****Evaporation****Guard cells****Humidity****Lignin****Mass flow****Mesophyll** **Palisade cells** **Phloem****Potometer****Sieve-tube element****Sink cells****Source cells****Stoma (plural stomata)** **Tension****Translocation****Transpiration****Xerophyte****Xylem** |
| **What will we learn?*** About the need for transport systems in multicellular plants
* About the structure and function of the vascular system in the roots, stems and leaves of herbaceous dicotyledonous plants
* How to examine and draw stained sections of plant tissue to show the distribution of xylem and phloem
* About the process of transpiration and how environmental factors affect transpiration rate
* How to estimate transpiration rates using practical investigations
* How water is transported into the plant, through the plant and to the air surrounding the leaves
* About adaptations of plants to the availability of water in their environment

**Misconceptions in this topic** |
| **What opportunities are there for wider study?**CareersEcology Brewing Forensics Horticulture Biochemistry Agriculture Food Science Laboratory Work Teaching Pharmacology Biotechnology Environmental scienceSTE(A)M https://highcliffe.sharepoint.com/sites/LearnSTEM |
| **How will I be assessed?**End of topic assessment  |