|  |  |  |
| --- | --- | --- |
| **What will we be learning?**  **Year 12 Plant Transport** | **Why this? Why now?**  Previous Learning  Future Learning  Enquiry Processes  Analyse 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?**  Careers  Ecology Brewing Forensics Horticulture Biochemistry Agriculture Food Science Laboratory Work Teaching Pharmacology Biotechnology Environmental science  STE(A)M  https://highcliffe.sharepoint.com/sites/LearnSTEM | |
| **How will I be assessed?**  End of topic assessment | |