

## Phloem transport

1. Plants transport organic compounds, such as \_\_\_\_\_, the main sugar, from \_\_\_\_\_ to \_\_\_\_\_. It depends on the time of the year.
2. Water is \_\_\_\_\_, which allows it to possess a great deal of \_\_\_\_\_ pressure.
3. To move a molecule, such as \_\_\_\_\_ into the phloem, \_\_\_\_\_ transport is carried out. This means that it requires \_\_\_\_\_ and a \_\_\_\_\_ protein.
4. In the case of \_\_\_\_\_, it needs to be moved in with the help of \_\_\_\_\_ ions. These are also called \_\_\_\_\_. As both substances move together, this form of transport is called \_\_\_\_\_.
5. The process of uploading \_\_\_\_\_ into the phloem \_\_\_\_\_ tubes is as follows:
  - a) At the source, \_\_\_\_\_ are pumped outside the phloem, creating a \_\_\_\_\_ gradient.
  - b) The \_\_\_\_\_ then move down their concentration \_\_\_\_\_, through a \_\_\_\_\_. This simultaneously allows \_\_\_\_\_ to enter.
  - c) Once \_\_\_\_\_ has entered the phloem \_\_\_\_\_ tube, \_\_\_\_\_ passively moves in too, by the process of \_\_\_\_\_.
  - d) This creates \_\_\_\_\_ pressure and moves the sap towards the \_\_\_\_\_. There, the \_\_\_\_\_ is being actively \_\_\_\_\_ from the \_\_\_\_\_ tubes, which lowers the pressure by the sink, as \_\_\_\_\_ will also leave.

6. Draw a cross-section of a root and a stem, showing the locations of xylem and phloem: