

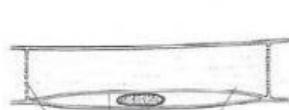


### Transport in Plants

1. Complete the table comparing xylem and phloem. Use the words in **UPPERCASE** to answer. Only ONE word should go on each line.

FEATURE	XYLEM	PHLOEM
Cells <b>LIVING</b> or <b>DEAD</b>	_____	_____
Lignin <b>PRESENT</b> or <b>ABSENT</b>	_____	_____
End walls broken down <b>PARTIALLY</b> or <b>COMPLETELY</b>	_____	_____
<b>ONE</b> or <b>TWO</b> types of cells	_____	_____
Companion cells <b>PRESENT</b> or <b>ABSENT</b>	_____	_____
Are substances transported <b>DOWN</b> or <b>UP</b>	_____	_____

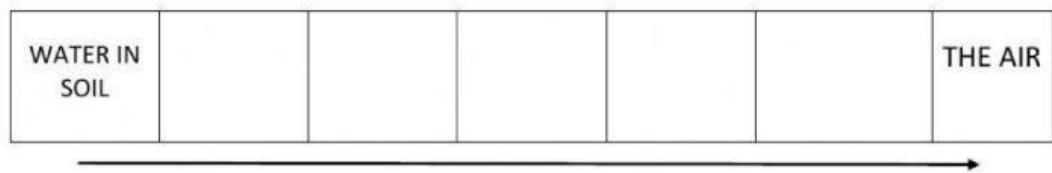
2. Beneath each diagram, type **XYLEM** or **PHLOEM**.





3. What is the pathway of water from soil, into the plant and to the atmosphere? Drag the following phrases into place in the correct order.

Up the xylem in the stem	Evaporation of water from the stomata of the leaves	Movement across root cortex by osmosis	Movement of water across leaf cells	Into roots by osmosis
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4. Type T for True or F for False after each statement.

- a. Xylem is responsible for transporting water and minerals from the roots to the leaves in a plant.
- b. Phloem transports water and minerals from the leaves to other parts of the plant.
- c. Xylem vessels are composed of living cells.
- d. Phloem tubes are composed of dead cells.
- e. Phloem transport can occur in both directions within a plant.
- f. The movement of sugars in phloem is called translocation.
- g. Xylem is responsible for the upward movement of water and minerals in a plant.
- h. Xylem cells are reinforced with lignin, providing structural support to the plant.
- i. Xylem is primarily found in the outermost layer of a plant's stem.
- j. Xylem vessels are impermeable to water and nutrients.
- k. Vascular tissues in the roots are located nearer to the edge of the root.