B3.2 Transport in plants

What the Cell · DP Biology · note-taking sheet · plant statements B3.2.7–10

Name _____ **Date** _____

How to use this sheet: go through the slides and videos with it, then close them and write from memory. Use your own words and add page numbers from the book where you want more detail.

B3.2.7 How transpiration moves water from roots to leaves

Textbook pp. 303–307

Write the steps in order, starting with evaporation in the leaf. Use **capillary action**, **tension** and **cohesion**.

	What it is	What it does in water transport
Cohesion		
Adhesion		

Give one piece of evidence that water in xylem is under tension.

B3.2.8 How xylem vessels are adapted

Textbook p. 308

Draw a section of a xylem vessel, and annotate the features below with their functions.

Feature	Why it helps
No cell contents	
Incomplete or absent end walls	
Lignified walls	
Pits	

B3.2.9 Tissues in a dicot stem

Textbook pp. 308–309

Draw a plan diagram from a micrograph. Label and annotate the **epidermis**, **cortex**, **vascular bundles**, **xylem** and **phloem**.

B3.2.10 Tissues in a dicot root

Textbook p. 310

Draw a plan diagram from a microscope image. Label the **epidermis**, **cortex**, **xylem** and **phloem**.

State two differences between your stem and root diagrams.

Before you finish

Tick the ones you can explain without notes. Circle anything to ask about.

- ☐ How tension is generated
- ☐ Cohesion and adhesion
- ☐ Why no ATP is used by the plant
- ☐ Four adaptations of xylem
- ☐ Tissues in a stem
- ☐ Tissues in a root
- ☐ How to draw a plan diagram
- ☐ Comparing plant and animal transport