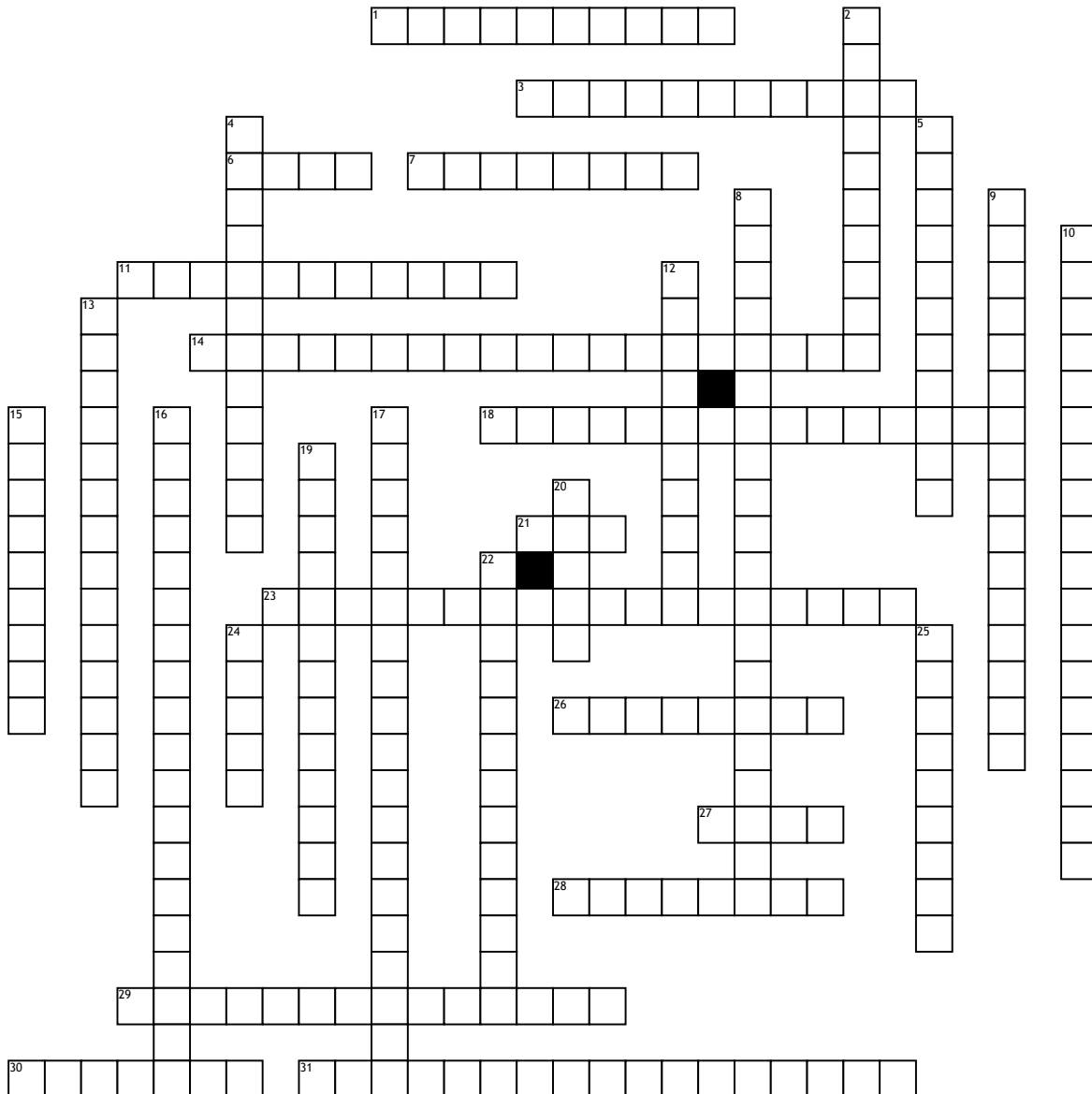


B2.3



Across

1. What happens to sugar at the sink? (3, 7)
3. Is capillarity more relevant in small plants or large trees? (5, 6)
6. Does the substomal chamber have a high or low water potential? (4)
7. The degree to which two molecules are attracted to each other. (8)
11. Which is the fastest pathway water can take across the root? (3, 8)
14. What are the end walls of sieve tubes like? (10, 4, 5)
18. Blood from capillaries collect at ___ which turn into ___ (7, 3, 5)
21. Haemoglobin dissociates oxygen when partial pressure is ___ (3)
23. What do arteries and veins do? (9, 9)
26. What does water travel in up through the stem to the leaves? (3, 5)
27. Haemoglobin picks up oxygen when the partial pressure is ___ (4)

28. Will more water be lost on a dry, windy day, or a humid, still day? (3, 5)
 29. An area of the heart muscle in the right atrium that initiates a wave of electrical excitation across the atria. (4, 6, 4)
 30. Water passes down a water potential gradient, form a high water potential to a low water potential by which process? (7)
 31. The blood moves through the heart once in its passage around the body. (6, 11)
- Down**
2. What do arteries branch into? (10)
 4. What happens to the rate of transpiration in relation to the rate of water absorption if the cells of the plant are fully turgid? (4, 3, 5)
 5. What do arterioles branch into? (11)
 8. This circulation serves the lungs - the right side of the heart pumps deoxygenated blood to the lungs. Oxygenated blood returns from the lungs to the left side of the heart. (9, 11)
 9. What does the cuticle do? (7, 5, 4)
 10. Do fish have a single or double circulatory system? (1, 6, 11)

12. The movement of the oxygen dissociation curve to the right at a higher partial pressure of carbon dioxide, because at a given oxygen partial pressure, haemoglobin has a lower affinity for oxygen. (4, 6)
13. What does haemoglobin become when it picks up oxygen? (14)
15. What joins the source to the sink? (3, 6)
16. What are the two main types of cells in xylem? (7, 3, 9)
17. The heartbeat is initiated within the muscle cells themselves, and not dependent on nervous or hormonal stimulation. (8, 11)
19. The diffusion of Cl⁻ ions into the red blood cell to maintain its electrochemical neutrality. (8, 5)
20. Water is drawn up from the soil through the what? (5)
22. What is the function of red blood cells? (2, 5, 6)
24. The walls of the spongy mesophyll are saturated with what? (5)
25. How are the xylem arranged in roots? (9)