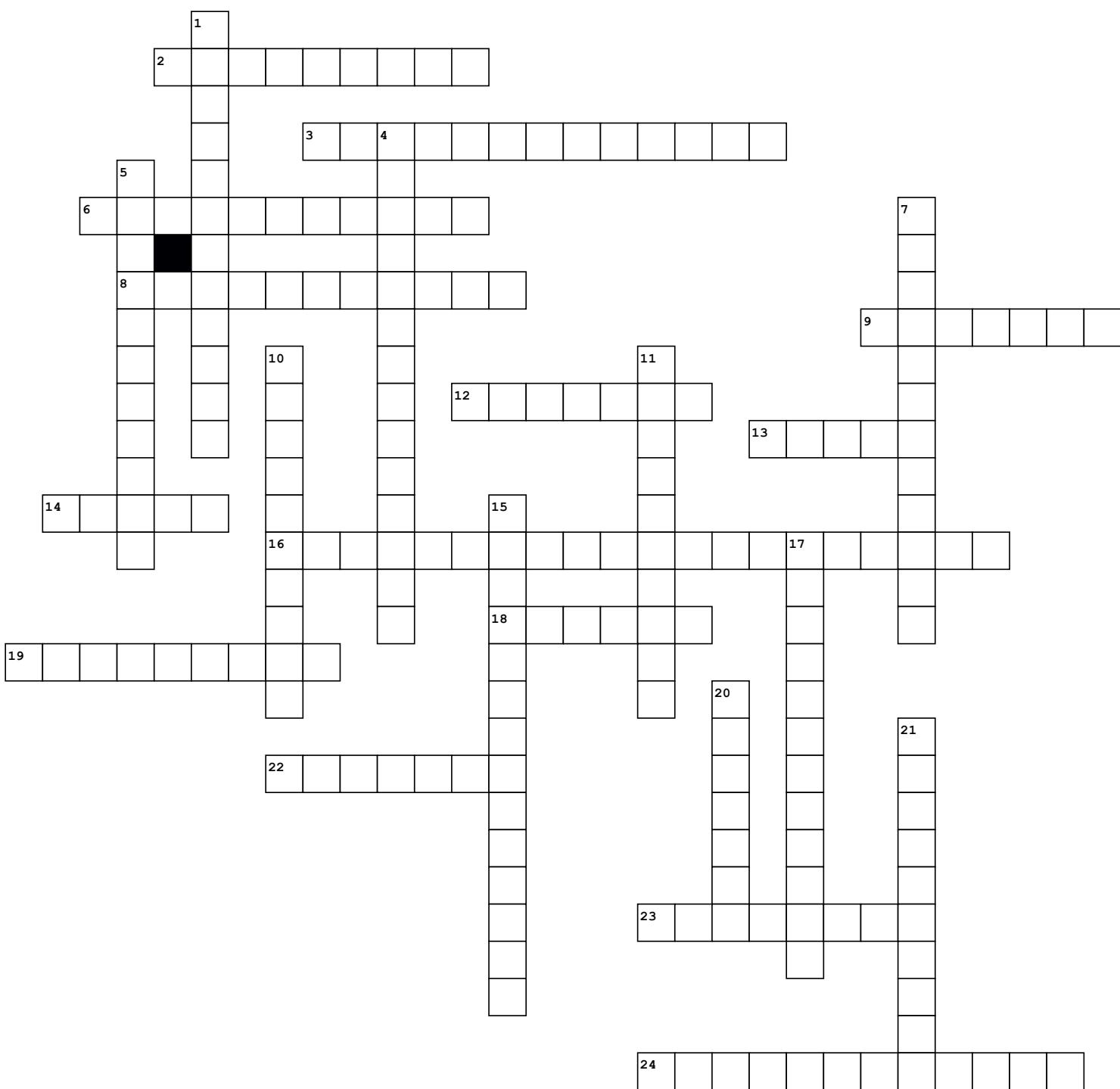


Review: Chloroplasts and Photosynthesis (HL)



Across

2. A structure within the chloroplast in which the light dependent reactions take place.
3. The molecule that provides a source of carbon atoms during photosynthesis.
6. The organelle in which photosynthesis occurs.

Down

1. The movement of protons against their concentration gradient and then back down, through ATP synthase.
4. A specialized chlorophyll molecule that accepts excited electrons.

8. The limiting factor of photosynthesis that does not result in a flat maximum rate of reaction.

9. The colours represented by wavelengths 700nm and 400nm.

12. A molecule that absorbs and/or reflects light.

13. The reactant of photosynthesis that provides a source of protons and electrons.

14. The colour most reflected by plants and the chlorophyll pigment.

16. The addition of a phosphate group to ADP using energy from light.

18. The molecular by-product (waste) of photosynthesis.

19. The "second" phase of the Calvin cycle, involving the oxidation of NADPH.

22. The enzyme responsible for the fixation of carbon.

23. The form of energy in which light energy is converted during photosynthesis.

24. The structural array associated with the reduction of NADP⁺.

5. An array of photosynthetic pigments.

7. The "final" phase of the Calvin cycle, in which ATP is used to rebuild RuBP.

10. This spectrum almost exactly matches the action spectrum of photosynthesis.

11. The E of FACE experiments, investigating the affect of changing CO₂ levels on photosynthesis.

15. A process used to separate pigments.

17. The light dependent reactions are a _____ pathway, while the Calvin cycle is a _____ pathway.

20. The primary sugar produced during photosynthesis.

21. The separation of water into protons and electrons.