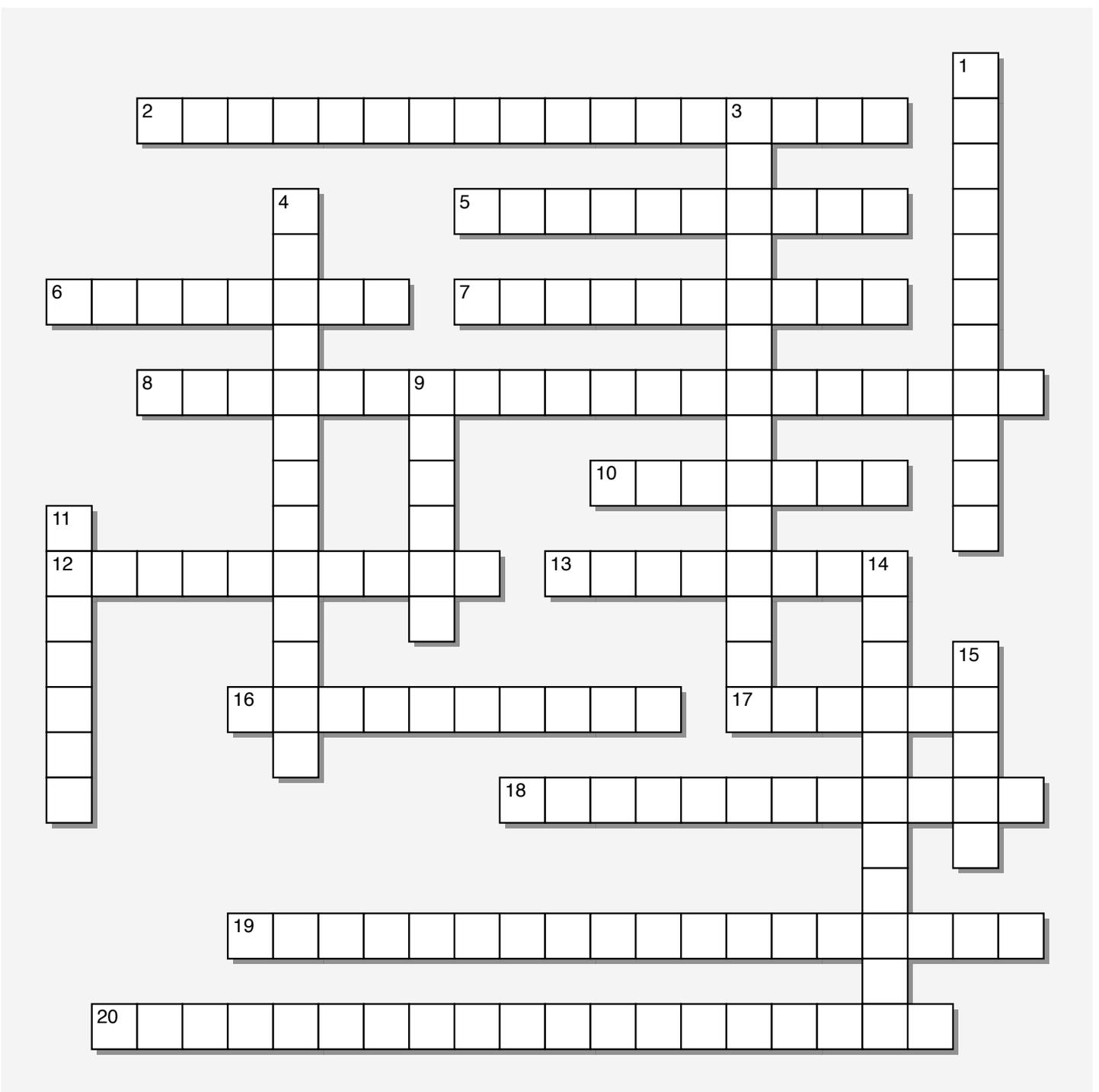


# Photosynthesis Crossword Name \_\_\_\_\_



## Across

2. Pink or purple protein made by Archaea; this moves hydrogen protons across cell membranes in response to light

## Down

1. Membrane-bound enzymes that transport electrons along ETCs and pump hydrogen through membranes  
3. Two part process used by photoautotrophs to capture light energy and then use that energy to fix carbon

## Across

5. Accepts electrons from chlorophylls of PSI in algae and cyanobacteria and passes them to NADP
6. The proton-motive force causes hydrogen protons to flow through ATP \_\_\_\_\_, providing the energy needed to make ATP
7. Inner folded membranes of chloroplasts; these carry pigment molecules, cytochromes and ATP-synthase
8. ATP synthesis involving light as the energy source
10. Packets of light energy; can cause electrons to move
12. Electron acceptor used by anoxygenic phototrophs during non-cyclic photophosphorylation
13. Organisms that form molecular oxygen by splitting water molecules
16. Organisms that cannot produce molecular oxygen, but can split hydrogen sulfide to form elemental sulfur
17. Inner fluid portion of chloroplasts; where the Calvin-Benson cycle occurs in algae and green plants
18. Inclusions containing high concentrations of RuBisCO; found in prokaryotic autotrophs
19. Electron acceptor used by anoxygenic phototrophs during cyclic photophosphorylation
20. Light trapping pigment of anoxygenic phototrophic bacteria (a, b, c, d and e)

## Down

4. Accepts electrons from chlorophylls of PSII in algae and cyanobacteria and passes them to cytochromes
9. Organisms dependent on photoautotrophs for both food and molecular oxygen
11. First enzyme in Calvin-Benson-Bassham cycle; this binds carbon dioxide to ribulose biphosphate
14. Light trapping pigment made by algae and cyanobacteria (a, b and c)
15. Can pass electrons and hydrogen protons to chlorophylls of PSII; this results in the formation of molecular oxygen