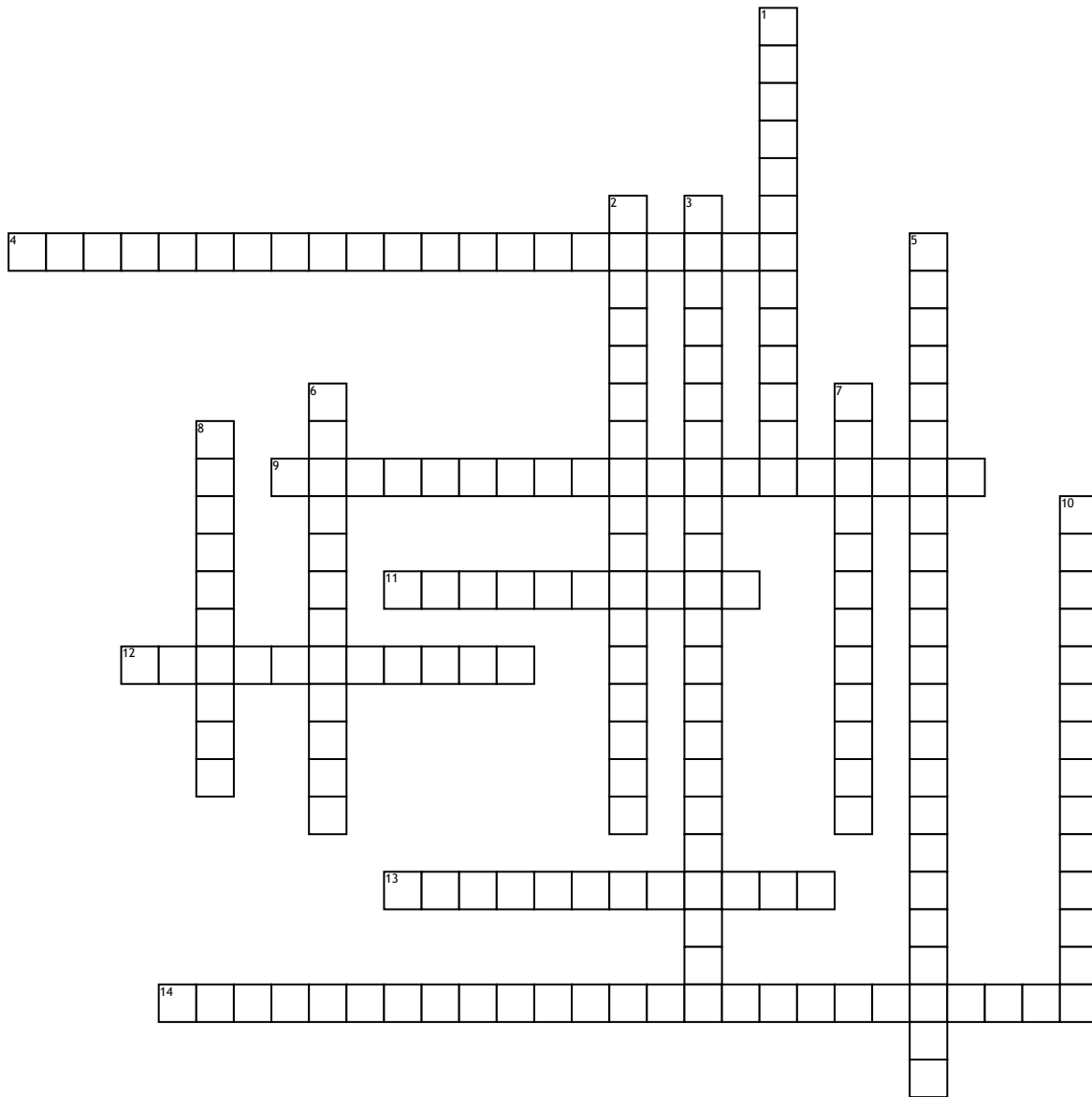


# Biology Bonus



## Across

- 4.** is the conversion process of inorganic carbon to organic compounds by living organisms
- 9.** is a set of metabolic reactions and processes that take place in the cells of organisms to convert biochemical energy from nutrients into adenosine triphosphate (ATP),
- 11.** each of a number of flattened sacs inside a chloroplast, bounded by pigmented membranes on which the light reactions of photosynthesis take place, and arranged in stacks or grana
- 12.** a plastid that contains chlorophyll and in which photosynthesis takes place
- 13.** a biochemical mechanism in plants by which chlorophyll absorbs light energy for photosynthesis

**14.** are chemical reactions that convert carbon dioxide and other compounds into glucose

## Down

- 1.** the capability of compounds such as NADH and NADPH of donating hydrogen and electrons in reduction reactions in cells
- 2.** a cycle of biochemical reactions taking place in the chloroplasts plants during photosynthesis in which carbon dioxide is fixed and six-carbon sugar formed
- 3.** The series of biochemical reactions in photosynthesis that require light energy
- 5.** is a series of complexes that transfer electrons

- 6.** is the movement of ions across a semipermeable membrane, down their electrochemical gradient
- 7.** an organelle found in large numbers in most cells, in which the biochemical processes of respiration and energy production occur
- 8.** the chemical processes that occur within a living organism in order to maintain life. Origin late 19th century: from Greek metabolē 'change' (from metaballein 'to change') + -ism. Translate metabolism to
- 10.** is a process by which plants, algae, and certain microorganisms transform light energy from the sun into the chemical energy of food