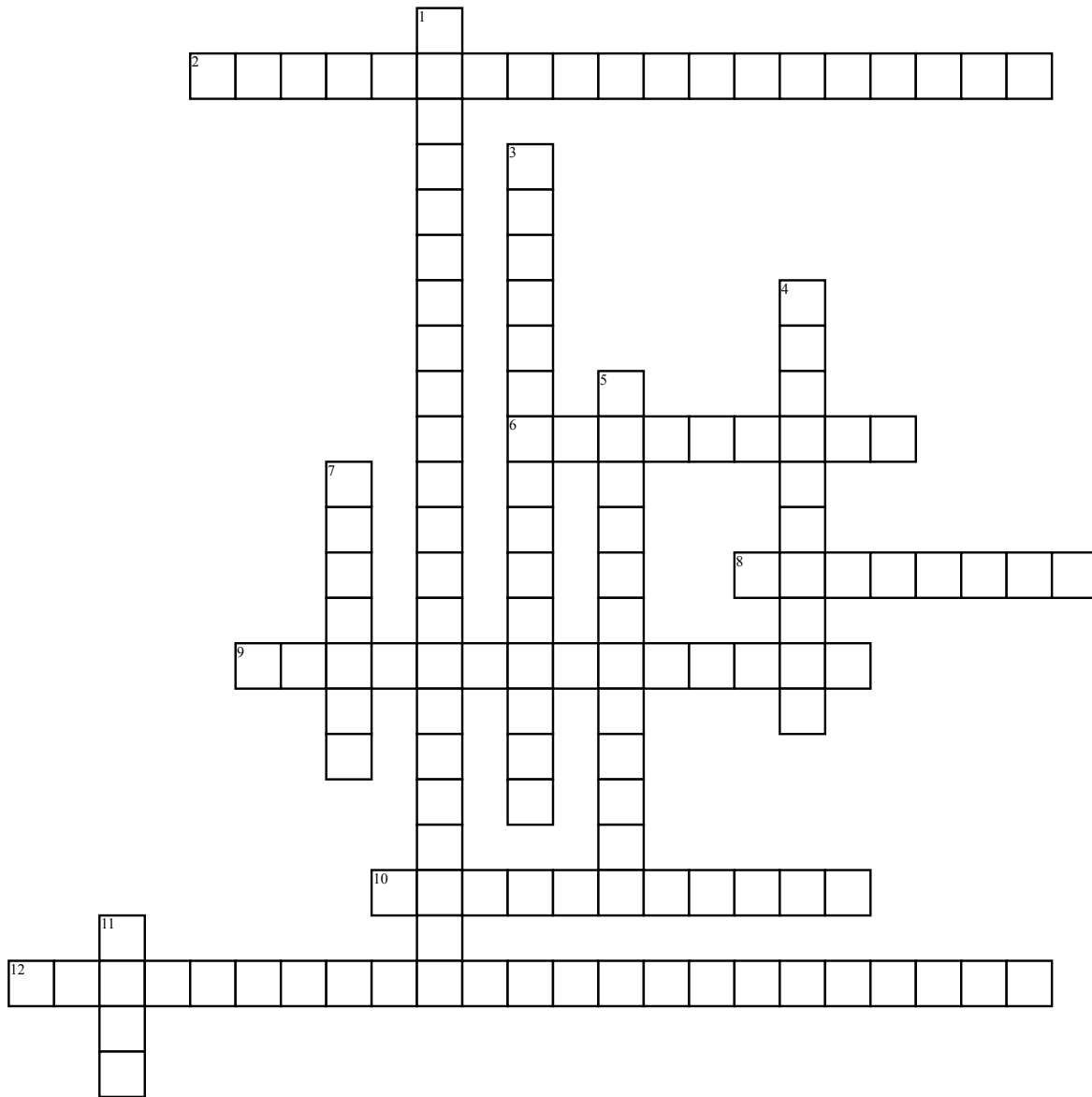


# Cellular Respiration and Photosynthesis



## Across

**2.** A process to convert sugars into energy.

**6.** This molecule is created by oxidizing pyruvate and is used in the Citric Acid Cycle.

**8.** Two of this molecule is produced in Glycolysis that can either be used for anaerobic or aerobic respiration.

**9.** This is a process mainly used in plants to convert sugar to energy and has the equation  $6\text{CO}_2 + 6\text{H}_2\text{O} \rightarrow \text{C}_6\text{H}_{12}\text{O}_6 + 6\text{O}_2$ .

**10.** Part of Photosynthesis, this process occurs in the Chloroplast and requires three  $\text{CO}_2$ , nine ATP, and six NADPH to produce one G3P (considered a light-independent reaction).

**12.** Part of the Photosynthesis process uses light energy and  $\text{H}_2\text{O}$  to produce  $\text{O}_2$ , ATP, and NADPH.

## Down

**1.** This process occurs in the Mitochondrial Cristae and produces 26-28 ATP.

**3.** A aerobic respiration process that uses Acetyl CoA and produces four  $\text{CO}_2$ , two  $\text{FADH}_2$ , and two ATP.

**4.** This process occurs in the Cytoplasm and breaks down Glucose resulting in a net gain of two NADH and four ATP.

**5.** An anaerobic process that produces Lactic acid and Ethanol.

**7.** The starting sugar for Cellular Respiration.

**11.** The product required to make one molecule of glucose through the Calvin Cycle. It uses six  $\text{CO}_2$ , eighteen ATP, and twelve NADPH.