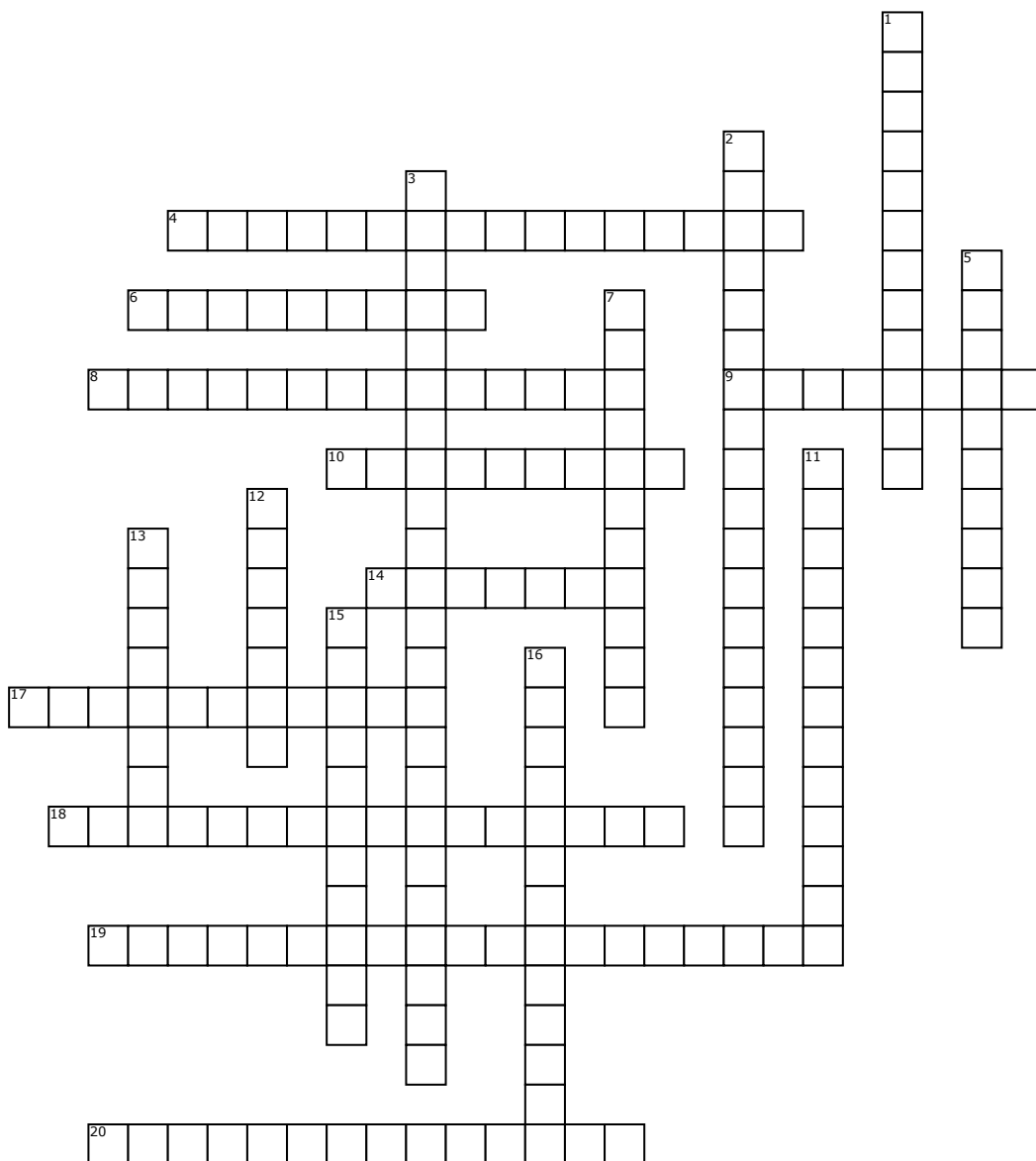


# Chemical Reactions



## **Across**

**4.** a way to show a chemical reaction, using symbols instead of words

**6.** A material that decreases the rate of a reaction

**8.** A change in a substance that does not involve a change in the identity of the substance

**9.** substances that undergo the chemical changes

**10.** when two or more elements or compounds combine to make a more complex substance

**14.** a substance that forms in a chemical reaction

**17.** When one element replaces another in a compound, or when two elements in different compounds trade places

**18.** the minimum amount of energy required to start a chemical reaction

**19.** more energy is required to break the bonds of the reactants than is released by the formation of the products

**20.** A change in matter that produces one or more new substances

## **Down**

**1.** matter is not allowed to enter or leave

**2.** the energy released as the products form is greater than the energy required to break the bonds of the reactants

**3.** Matter is neither created nor destroyed

**5.** matter can enter from or escape to the surroundings

**7.** a solid that forms from liquids during a chemical reaction precipitate the energy released as the products form is greater than the energy required to break the bonds of the reactants

**11.** A chemical reaction that breaks down compounds into simpler products.

**12.** A type of protein that speeds up a chemical reaction in a living thing

**13.** increases the reaction rate by lowering the activation energy needed catalyst A type of protein that speeds up a chemical reaction in a living th

**15.** A number placed in front of a chemical formula in an equation

**16.** the amount of a substance in a given volume