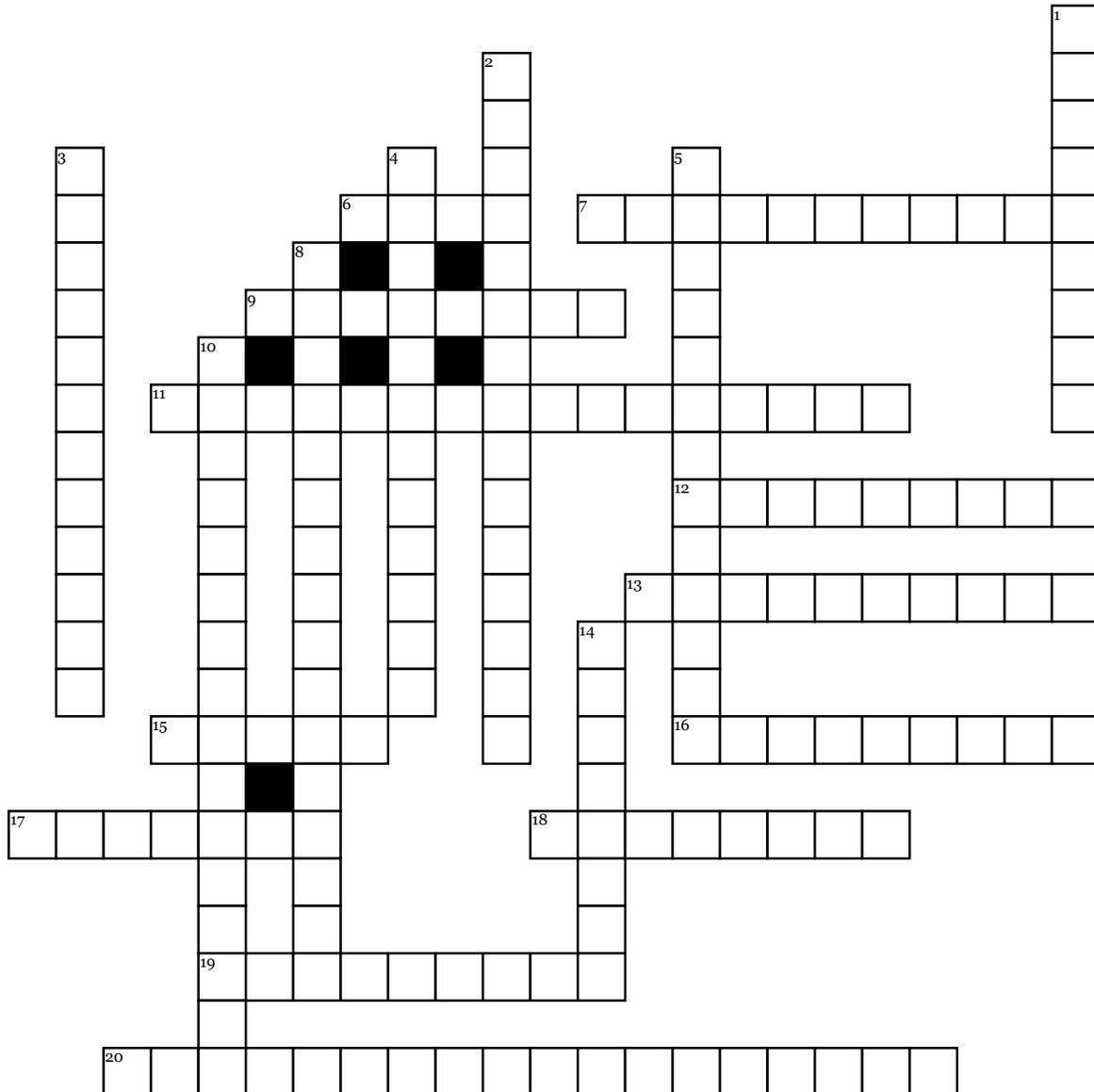


# The Amazing Elements



**Across**

- 6. the smallest piece of an element that still represents that element
- 7. A number placed in front of an element symbol or a chemical formula in a equation
- 9. The simplest form of a pure substances that cannot be broken down into any other substances by chemical means
- 11. Characteristics of a chemical and how the molecules that make up the substance can be rearranged or combined with other substances
- 12. A type of chemical reaction in which two or more substances combine and form one compound
- 13. The mass of an atom of a chemical element expressed in atomic mass units. It is approximately equivalent to the number of protons and neutrons in the atom

- 15. Shiny, high melting point, good conductors, ductile
- 16. Dull, brittle, non conductors, and low melting point
- 17. A substance produced by a chemical reaction
- 18. Two or more atoms that are held together by covalent bonds and act as a unit
- 19. The attraction between positively and negatively charged ions in an ionic compound
- 20. A principle stating that the total momentum of a group of objects stays the same unless outside forces act on objects

**Down**

- 1. A starting substance in a chemical in a chemical reaction

- 2. A group of chemical symbols and numbers that represents the elements and the number of atoms of each element that makes up a compound
- 3. A chemical bond formed when two atoms share one or more pairs of valence electrons
- 4. The number of protons in the nucleus of an atom, which determines the chemical properties of an element and its place in the periodic table
- 5. A type of chemical reaction in which one compound breaks down and forms two or one elements
- 8. A process in which atoms of one or more substances rearranged to form one or more new substances
- 10. A description of a reaction using element symbols and chemical formulas
- 14. Pure substances that are chemical unions of positive elements