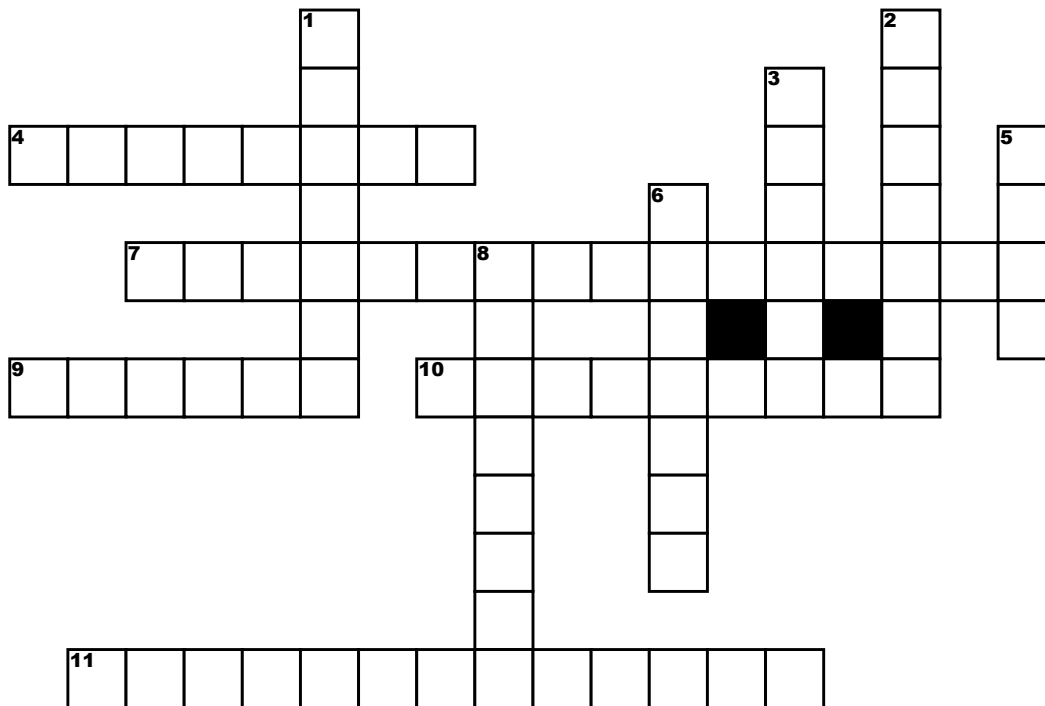


# Matter & Energy



**Across**

- 4.** a substance that is formed as the result of a chemical reaction
- 7.** electron that is associated with an atom, and that can participate in the formation of a chemical bond
- 9.** a subatomic particle of about the same mass as a proton but without an electric charge, present in all atomic nuclei except those of ordinary hydrogen
- 10.** a substance that takes part in and undergoes change during a reaction
- 11.** electrons are when they go around the nucleus of an atom

**Down**

- 1.** the central and most important part of an object, movement, or group, forming the basis for its activity and growth

- 2.** one of the horizontal rows, all of whose elements have the same number of electron shells
- 3.** a stable subatomic particle occurring in all atomic nuclei, with a positive electric charge equal in magnitude to that of an electron, but of opposite sign
- 5.** a coherent, typically large body of matter with no definite shape
- 6.** a subatomic particle of about the same mass as a proton but without an electric charge, present in all atomic nuclei except those of ordinary hydrogen
- 8.** a stable subatomic particle with a charge of negative electricity, found in all atoms and acting as the primary carrier of electricity in solids