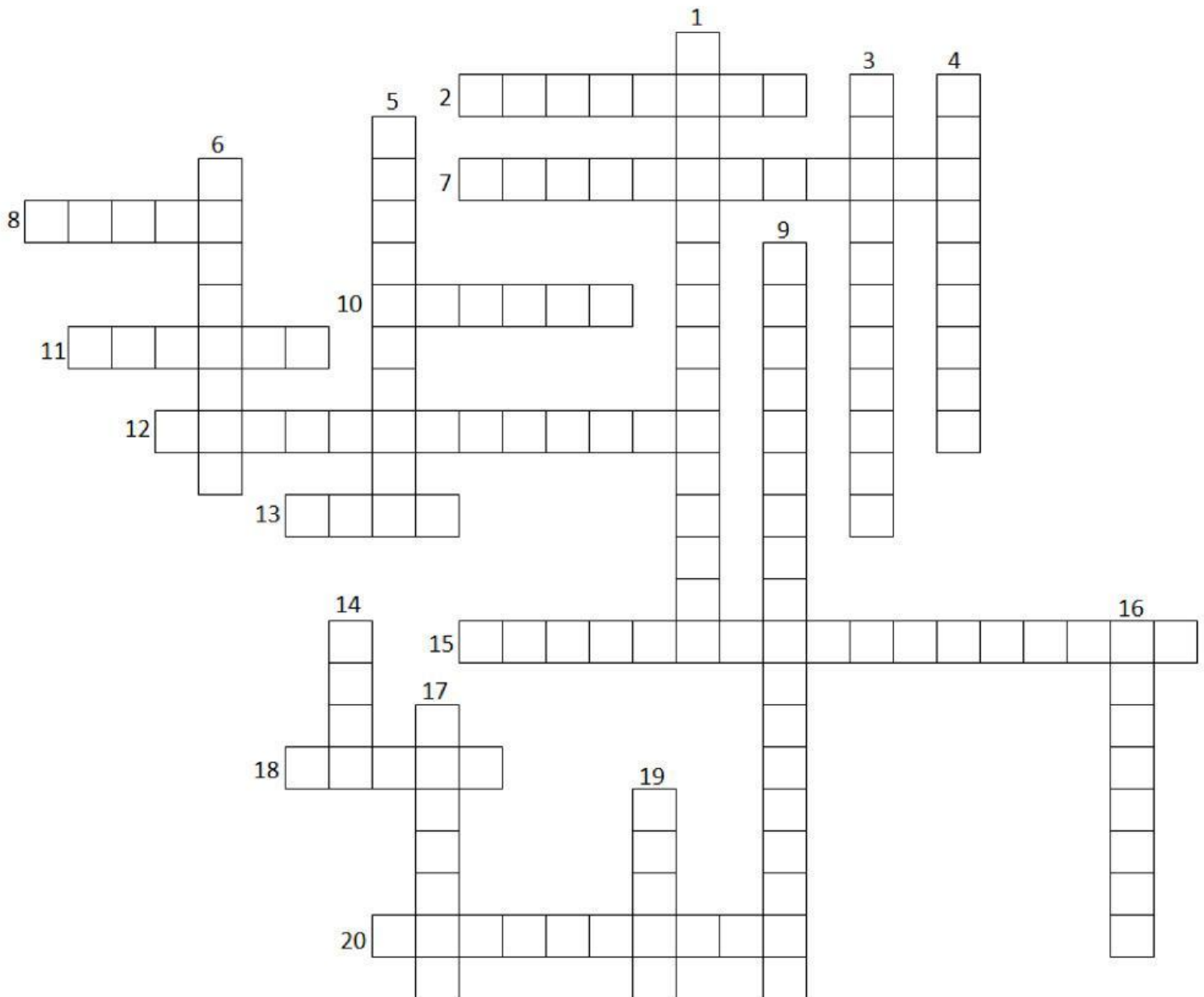


CRISS CROSS PUZZLE: ELECTRONIC COMPONENTS

Use the clues to complete the Criss Cross Puzzle about ELECTRONIC COMPONENTS.
Words can go across or down; letters are shared when the words intersect.

**Vocabulary:**

Battery; Breadboard; Capacitor; Diode; Electric Lamp; Fuse; Heat Sink; Inductor; Integrated Circuit; Light Emitting Diode; Microcontroller; Motor; Potentiometer; Relay; Resistor; Sensor; Switch; Transformer; Transistor; Wire

ACROSS →

- 2.** A passive cooling device that regulates the temperature of an electronic or mechanical device. Made of metal and with a large working surface, it dissipates excess heat.
- 7.** A component with a thin metal filament inside a transparent glass cover filled with inert gas. It emits light when current flows through it, heating the filament without melting it.
- 8.** A semiconductor electronic component with two electrodes at its terminals. It allows the flow of current in only one direction; it can also change alternating current (AC) into pulsating direct current (DC).
- 10.** A component used for opening and closing a circuit. It has a flexible moving mechanical part which can be controlled manually turning it ON or OFF.
- 11.** A component that senses a condition or effect, such as light, pressure or heat, and converts it into an electric signal.
- 12.** A component with a variable amount of electrical resistance. It is used for controlling electrical devices, for example volume controls on audio equipment.
- 13.** A long strand of metal, usually made of copper, which is used for conducting electric current.
- 15.** A small chip that can function as an amplifier, oscillator, timer, microprocessor, or even computer memory. It is a small wafer, usually made of silicon, that can hold anywhere from hundreds to millions of transistors, resistors, and capacitors.
- 18.** This component is similar to a switch. It has a flexible moving mechanical part which can be controlled with an electronic signal instead of manually turning it ON or OFF.
- 20.** A temporary, reusable work board for building and testing electronic circuits. It is a plastic board in a variety of sizes and a regular shape, which contains groups of electrically interconnected contact holes.

DOWN ↓

1. A small, programmable computer chip used for controlling electronic devices. It contains a processor, memory, and input/output (I/O) peripherals; it gathers input, processes this information, and outputs a certain action based on the information gathered. It is often used in Internet of Things (IoT).
3. This component converts a given power voltage to another power voltage, without changing frequency. It works on the principle of mutual induction.
4. A component with the property of storing electrical energy in an electric field, measured in Farads. It improves the efficiency and stability of electrical circuits.
5. A semiconductor electronic component that is used for switching and amplifying electrical signals. It has three terminals that carry electrical current and help make a connection to external circuits.
6. A component with a fixed amount of electrical resistance. It is used in electric and electronic circuits for protection, current flow control, and adjustment of signal levels.
9. A small semiconductor electronic component that emits light when current flows through it. You can find it in remote-control circuits of consumer electronics, traffic signals, general lighting, camera flashes, medical devices, etc...
14. It is a safety device that protects form overloading or short circuits. It has a low-resistance metal or wire that will melt (or “blow”) when too much current goes through it.
16. A component that stores energy in the form of a magnetic field. In its simplest form, it consists of a wire loop or coil.
17. It stores and converts chemical energy directly into electrical energy. It has one or more electrochemical cells with external connections for powering electrical devices.
19. A machine that uses electrical energy to produce mechanical energy (movement), usually through the interaction of magnetic fields and conductors.