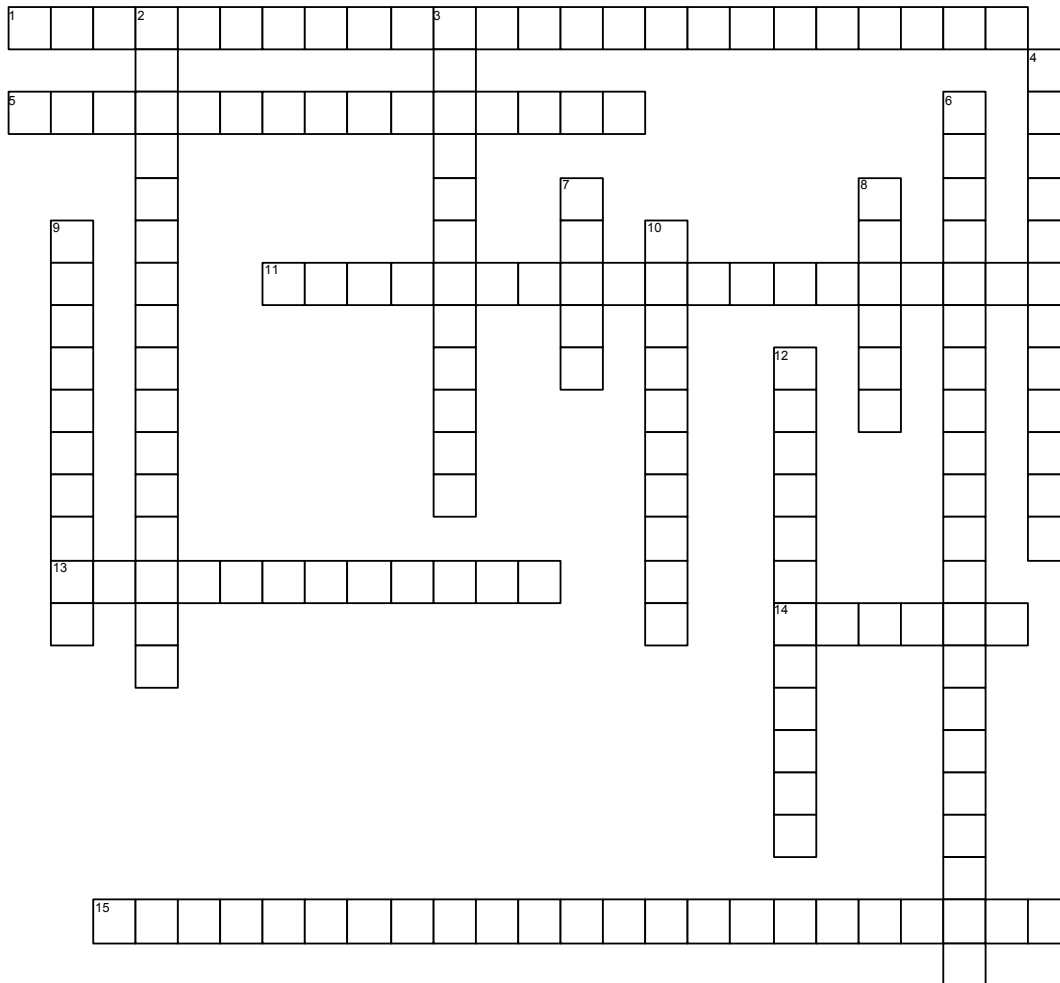


# Hybrid Electric Vehicles

## Chapter 43



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### ACROSS

- 1 The \_\_\_\_\_ used in a hybrid vehicle can be either gasoline or diesel, although only gasoline-powered engines are currently used in hybrid vehicles.
- 5 The \_\_\_\_\_ enables the vehicle to use a smaller, more fuel-efficient engine without giving up vehicle performance.
- 11 When decelerating, the braking system captures the energy from the vehicle's inertia and converts it to electrical energy, which is stored in the battery or other device for later use, this is called \_\_\_\_\_.
- 13 The \_\_\_\_\_ turns off the engine when the vehicle is stopped.

- 14 Different vehicle manufacturers use various \_\_\_\_\_ technologies.
- 15 Early electric vehicles were also called \_\_\_\_\_.

### DOWN

- 2 Early \_\_\_\_\_ used lead-acid batteries, an electric motor, and a mechanical controller.
- 3 When the electric motor propels the vehicle at lower speeds, this mode is often called \_\_\_\_\_.
- 4 Another name for a full hybrid is a \_\_\_\_\_.
- 6 A \_\_\_\_\_ uses both an internal combustion engine and an electric motor to propel the vehicle.
- 7 The vehicle is shut off when the \_\_\_\_\_ indicator is off.
- 8 The presence of \_\_\_\_\_ cables under the hood would identify the vehicle as an HEV.
- 9 A \_\_\_\_\_ uses idle stop regenerative braking, and is able to propel the vehicle using the electric motor alone.
- 10 A \_\_\_\_\_ will incorporate idle stop and regenerative braking but is not capable of using the electric motor to propel the vehicle on its own without help from the internal combustion engine.
- 12 A \_\_\_\_\_ uses 144- to 158-volt batteries that provide for engine stop/start, regenerative braking, and power assist.