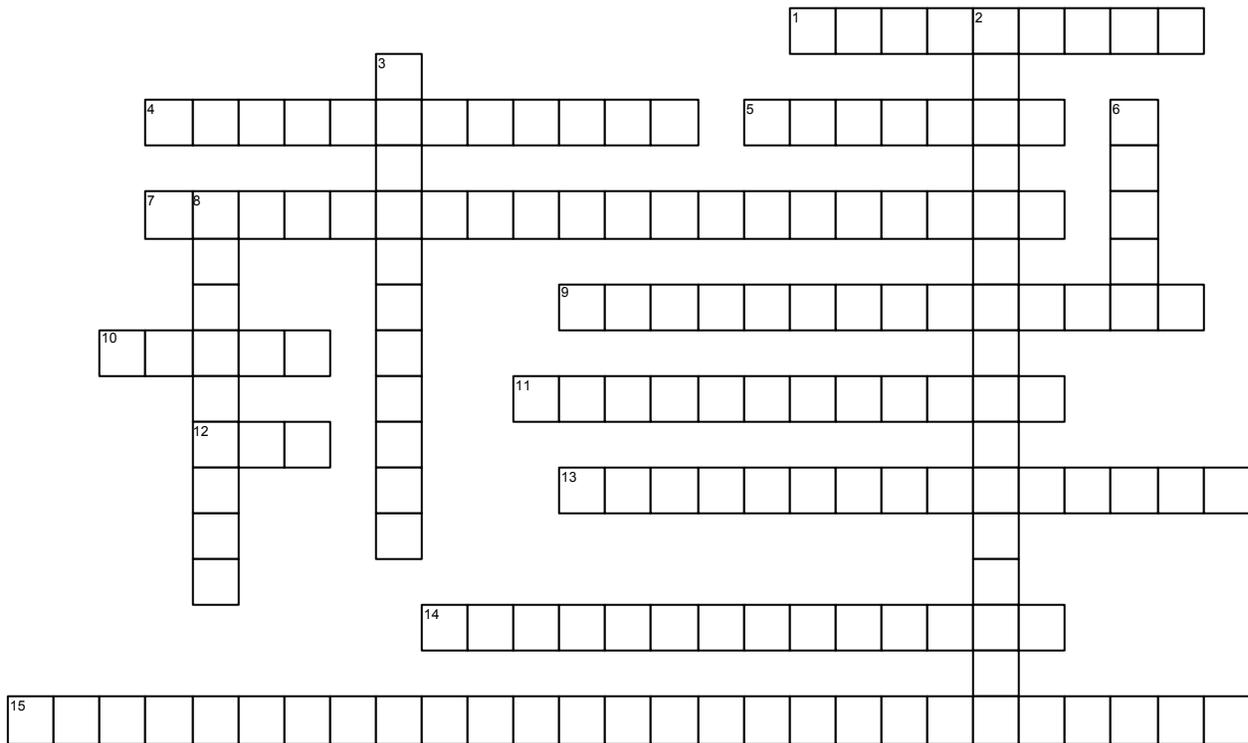


# Electric and Plug-In Hybrid Electric Vehicles

## Chapter 17



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### ACROSS

- 1 The higher the capacity of the \_\_\_\_\_, the further the vehicle can travel using electric power only but the longer it takes to be fully charged when plugged into a charger.
- 4 \_\_\_\_\_ is a feeling of many drivers' experience of running out of electric battery energy before they reach their destination.
- 5 \_\_\_\_\_ is a Japanese trade name of a quick charging method for level 3 charging using DC electricity at a high rate.
- 7 Electric vehicles that use battery power alone to propel the vehicle are called \_\_\_\_\_.
- 9 Level 3 chargers are often called a \_\_\_\_\_ and can often charge an EV battery to 80% capacity in as little as 30 minutes.
- 10 \_\_\_\_\_ uses a unique plug and also supplies adapters so the vehicle owner can plug into a SAE J1772 station or a 220-volt conventional outlet or even to a conventional 110-volt outlet.
- 11 A lower \_\_\_\_\_-\_\_\_\_\_ rated battery weighs less and is less expensive but the range that the vehicle can travel on battery power alone is limited.
- 12 After the battery pack has been discharged propelling the vehicle, the \_\_\_\_\_ is used to keep the battery charged enough to propel the vehicle, but it does not fully recharge the battery pack.
- 13 An \_\_\_\_\_ uses a high-voltage battery pack to supply electrical energy to an electric motor(s) to propel the vehicle under all driving conditions.
- 14 Batteries do not function well at high temperatures and, therefore, some type of \_\_\_\_\_ must be added to the vehicle to allow for maximum battery performance.
- 15 A \_\_\_\_\_ is a vehicle that is designed to be plugged into an electrical outlet at night to charge the batteries.

### DOWN

- 2 Batteries work best when they are kept within a \_\_\_\_\_ that is also the most comfortable for humans.
- 3 Past models of electric vehicles, such as the General Motors electric vehicle (EV1), were restricted to locations such as Arizona and southern California that had a warm climate.
- 6 How far an electric vehicle can travel on a full battery charge is called its \_\_\_\_\_.
- 8 The less the ICE is operating, the less fuel is consumed and the lower are the \_\_\_\_\_.