

Automotive Technology 7<sup>th</sup> Edition  
Chapter 90: EV and PHEV Charging  
Short Answer Quiz

Name:

Date:

1. What are the distinguishing features of a plug-in hybrid electric vehicle (PHEV) compared to a conventional or hybrid-electric vehicle (HEV)?
2. Describe the process and requirements for charging a vehicle using a Level 1 charging cable that comes with the vehicle.
3. What voltage and amperage are typically used to power a Level 2 charger at home, and what are the implications for electrical installation?
4. Explain the typical charging rates for Level 3 (DC Fast Charging) chargers and how they differ from Level 1 and Level 2 chargers.
5. List some smartphone apps that are useful for locating charging stations and provide a brief overview of their features.

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6. What type of connector is used by Level 3 chargers, and why is it different from the connectors used by Level 1 and Level 2 chargers?

7. Define destination charging and give examples of locations where this type of charging is commonly found.

8. Discuss the factors that affect the range of an electric vehicle and how each factor contributes to the overall driving range.

9. Explain the impact of cold weather on the efficiency and range of electric vehicles and the measures taken to mitigate these effects.

10. Describe the concerns associated with electric vehicles in hot weather and how these concerns are addressed to maintain battery performance and vehicle range.