

Name \_\_\_\_\_

## The Sparkling Secrets of Electric Vehicle Battery Degradation

### Open-Ended Response Answer Key

1. Electric vehicle batteries store electrical energy in lithium-ion cells and release it to power the vehicle's electric motor when needed. When charged, chemical reactions occur inside the cells, storing energy that can be used later.
2. Cycling refers to the process of charging and discharging the battery. More cycles can lead to faster battery degradation, reducing its capacity to hold a charge.
3. High temperatures can accelerate chemical reactions and reduce battery life, while low temperatures slow down reactions and decrease battery efficiency.
4. Practical tips include avoiding frequent deep discharges, keeping the battery within a certain charge range, and avoiding extreme temperatures.

