

Conservation of Energy Concepts

A. What are the two key ideas in the Law of Conservation of Energy?

B. Give an example of each of the following types of energy:

kinetic energy

gravitational potential energy

chemical potential energy

elastic potential energy

magnetic potential energy

electric potential energy

thermal energy

C. What type(s) of energy are in each of the following:

an explosion

a moving ball

a battery

an orange

gasoline

a lightbulb (on)

Applications

For each of the following situations, explain the energy transformations that take place.

1. What does a generator do?
2. You plug in your phone all night.
3. You use your phone all day.
4. You use a flashlight.
5. You use the brakes to stop your normal car.
6. You slow down in your hybrid car.
7. What does a car engine do?
8. What does photosynthesis do?
9. You rub your hands together.
10. Some dynamite explodes.