

NAME: \_\_\_\_\_

## WHAT DO YOU KNOW ABOUT ENERGY?

This unit is all about energy. Share what you know about how energy works.

**1 What is potential energy?**

- A** How fast an object can move
- B** The force that makes an object move
- C** The unused energy stored in an unmoving object
- D** All of the above

**2 The potential energy of a car at the top of a ramp is affected by:**

- A** The car's shape.
- B** The height of the ramp.
- C** The car's speed.
- D** The length of the ramp

**3 The force of gravity \_\_\_\_\_**

- A** pushes objects away from Earth.
- B** slows objects down.
- C** causes objects to be pulled in two different directions.
- D** pulls objects downward toward Earth.

**4 True or false? Two objects with the same mass sitting at different heights have the same potential energy.**

- A** True
- B** False

**5 What is kinetic energy?**

- A** The energy of an object in motion
- B** The energy in machines
- C** The energy stored in unmoving objects
- D** None of the above

**6 True or false? You can influence an object's kinetic energy by changing its mass.**

- A** True
- B** False

**7 What are two factors in kinetic energy?**

- A** Height and gravity
- B** Gravity and speed
- C** Speed and mass
- D** Mass and height

**8 What is friction?**

- A** An oppositional force
- B** The resistance that one surface experiences when moving over another
- C** The pull of gravity
- D** Both A and B
- E** None of the above

**9 What type of energy is created when two surfaces rub against each other?**

- A** Light
- B** Heat
- C** Sound
- D** All of the above

**10 Why are the rules of energy important to racing?**

- A** Because potential and kinetic energy help determine how quickly a racecar will go
- B** Because potential and kinetic energy help determine how much fuel a racecar will need to complete a race
- C** Because adjusting the factors that contribute to potential and kinetic energy can help a racecar go faster
- D** All of the above