

Unit 2 Test Study Guide

List and describe the four types of mechanical interactions

- 1.
- 2.
- 3.
- 4.

Draw an energy diagram for a boy pulling his sister in a wagon.

In an energy transfer, does the source or the receiver gain energy? Give an example.

In an energy transfer, does the source or the receiver lose energy? Give an example.

Draw an energy diagram of a baseball player hitting a ball with a bat.

What kind of evidence can you observe to show that an object is increasing in motion energy?

Draw an energy diagram for a parachute falling.

Draw an energy diagram for a baseball player sliding into second base.

Draw an energy diagram for a car slowing down on ice.

Draw an energy diagram for a boy diving into water.

What happens to the water around the diver in the previous question?

Give three examples of an elastic interaction.

- 1.
- 2.
- 3.

Give three examples of an applied interaction.

- 1.
- 2.
- 3.

Give three examples of a drag interaction

- 1.
- 2.
- 3.

Give three examples of a friction interaction

- 1.
- 2.
- 3.

Unit Review Questions:

What is the formula for calculating average speed? Include an example.

Describe the difference between a linear and a nonlinear relationship. Draw graphs as examples.

Define manipulated and responding variables. How can you identify each of them in an experiment?

How can you tell a good experiment design question from a bad one?