

Main Ideas, Key Points, Questions:

After watching the video segment, write down key points, main ideas, and big questions.

Objective(s):

- Calculate the amount of work performed by a force on an object.
- Differentiate between positive work, negative work, and zero work.
- Relate the amount of work done to an object by the change in its energy.

Notes:

During the video segment, use words, phrases, or drawings to take notes.

Summary:

After watching the video segment, write at least three sentences explaining what you learned. You may ask yourself: "If I was going to explain this to someone else, what would I say?"

Answer the following.

1. Define the physics quantity of work in your own words.

2. Is there net work done on an object at rest or moving at a constant velocity?

3. Work is measured in what unit? What base units make up this unit?

4. How does a force do positive work on an object?

5. How does a force do negative work on an object?

6. When a forklift raises an object, is it doing positive or negative work on the object? Which type of work is the force of gravity doing on the object? Explain your answers.

Answer the following.

7. Does kinetic friction speed up or slow down an object? Therefore, which type of work is done by kinetic friction? What can you conclude about the change in an object's speed relative to the type of work done on that object?

8. How is the amount of work done on an object relative to its change in energy?

9. Define energy in your own words.

10. What happens to the energy in a closed system?
