Name _____ Date _____ Class _____

SECTION 1 Study Guide

Work and Power

Chapter 4

Directions: *Give an example of how you could apply a force to do work. Describe the necessary condition for the force to do work.*

1. _____

_____

Directions: *Give an example of how you could apply a force and not do work. Explain why the applied force is not doing work.*

2. _____

_____

Directions: *Write formulas to fill in the following chart.*

	Write a Formula to Calculate	Data That Is Needed	Formula
3.	Work		
4.	Power		

Directions: *Decide what each situation describes and write the term in the blank. You may use terms from the bank more than once or not at all.*

distance **force** **kinetic energy** **power**
energy **heat** **potential energy** **work**

_____ 5. what is done when a baseball is lifted 0.7 m

_____ 6. the form of energy you give a chair by pushing it across the floor

_____ 7. the form of energy a book has that decreases as it tumbles from a library shelf

_____ 8. what a dog did as he pushed his food bowl across the room with his nose

_____ 9. measured in newtons

_____ 10. something that can not be created nor destroyed

_____ 11. measured in watts

_____ 12. the form of energy a baseball has that increases when it is lifted 0.7 m

_____ 13. a baseball is carried 7 m

_____ 14. the rate at which work is done

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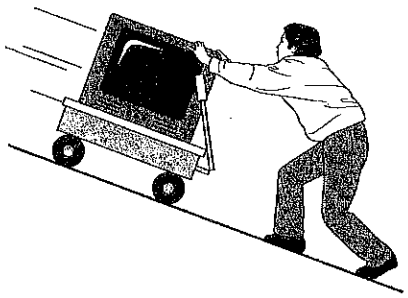
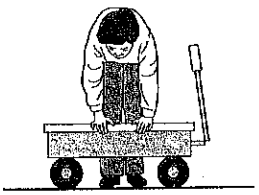
Name _____ Date _____ Class _____

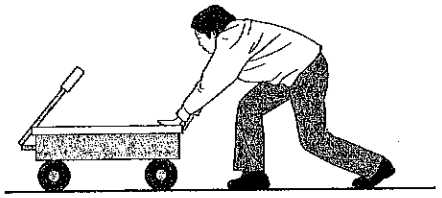
SECTION 1 Reinforcement

Work and Power

Directions: *Describe the work in each situation as* **work** *or* **no work**.







1. _____ 2. _____ 3. _____

Directions: *Name two situations in which no work is done to an object.*

4. _____

5. _____

Directions: *Answer the following questions on the lines provided.*

6. If you push an object at an angle so that the object moves along the ground, how much of your push counts as work?

_____

7. How is work measured? _____

_____

8. What is power? _____

_____

9. How is power measured? _____

_____

10. Can only engines have power? Explain.

_____

_____

Directions: *Use the formula,* power = work/time, *to calculate the power required in the following problem.*

11. A weightlifter lifts a 1,250-N barbell 2 m in 3 s. How much power was used to lift the barbell?

_____

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