ACTIVITY ANSWER KEY

Chapter 12, Section 1

Check your answers from the Answer Key.
Correct all errors, then complete your next goal.



Lesson 1: *Motion*

Speed, Distance and Time

1. distance
2. (d) meter
3. (a) distance
4. metal alloy
5. (a) meter
6. 1,000
7. (c) second
8. (b) speed
9. (c) change in distance/change in time
10. 64 mi/hr (speed = distance/time = 256 mi / 4 hr = 64 mi/hr)
11. (a) average
12. (b) False
13. Instantaneous
14. 1,000
15. (b) *instantaneous speed*
16. (b) direction
17. (b) False
18. (wording may vary) the flag will move in a southeasterly direction as a result of the wind
19. resultant velocity
20. *"A dream without action remains a daydream."*



Lesson 2: *Energy*

Energy

1. glucose or sugar
2. chemical
3. Mechanical, kinetic, potential
4. motion
5. (b) heat
6. (b) liquid hydrocarbons
7. heat
8. (b) False
9. chemical
10. potential
11. (a) atoms and molecules
12. heat
13. (c) heat
14. Chemical
    Heat
    Electrical
    Mechanical
    Kinetic
    Potential
15. (d) energy output/energy input
16. (b) 25
17. heat loss
18. (d) 50 percent
19. seven
20. (a) True
21. 75
22. *"Unless you try to do something beyond what you have already mastered, you will never grow."*



Lesson 3: *Energy*

Force and Simple Machines

1. machine
2. (a) True
3. simple machine
4. (a) simple machine
5. force, force
6. load force/effort force (or effort distance/load distance)

7. (c) more than one
8. 6 (M.A. = effort distance/load distance = 18 ft / 3 ft = 6)
9. (wording may vary) To give the person in the wheelchair an advantage of using less effort.
10. (a) inclined planes
11. effort arm/load arm
12. (b) levers
13. (d) less than one
14. (a) True
15. wheel and axle
16. (d) wheel and axle
17. (a) greater than one
18. lever
19. (b) complex
20. *"We are not here to merely make a living. We are here to enrich the world, and we impoverish ourselves if we forget this errand."*



Lesson 4: *Motion*
Laws of Motion

1. slow or stop
2. An object at rest will remain at rest and an object in motion will continue in straight-line motion at constant speed unless acted upon by an outside force
3. net force
4. velocity
5. (b) is traveling at a constant speed
6. (b) an acceleration of 5 mi/hr per sec
7. (a) acceleration
8. acceleration
9. Acceleration is directly proportional to the force acting upon it and inversely proportional to the mass of the object
10. (a) $a = F/m$
11. (a) mass of a body
12. (c) poorer
13. Two objects that act upon one another exert equal forces, but in opposite directions
14. (a) First Law of Motion
15. (b) False
16. (c) lighter
17. (b) the Sun and the Earth
18. masses
19. distance
20. *"By removing friction from our relationships, we can usually see our positive options plainly."*



Lesson 5: *Energy*
Heat

1. (d) radiant energy
2. (b) False
3. (b) bird
4. float, feathers
5. (c) radiant energy of sunlight
6. (d) Peru
7. (b) ancient Inca city
8. Archaeologists
9. (d) radiant sunlight
10. flour
11. electromagnetic
12. vacuum
13. (a) True
14. (c) by currents in fluids such as water or air
15. conduction, walls
16. (b) *convection*
17. (b) False
18. (b) convection
19. (d) radiation
20. (a) conduction
21. radiant
22. *"Wealth brings many friends, but a poor man's friends desert him."*

Ask for your QUIZ over Section 1. **Reminder:** Students who score 85% or higher on the three section quizzes may be exempt from the chapter test!