ACTIVITY ANSWER KEY

Chapter 12, Section 3

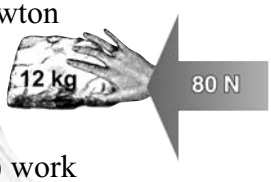
Check your answers from the Answer Key.
Correct all errors, then complete your next goal.

Lesson 11: *Energy*
Parallel Circuits

1. current
2. parallel
3. (b) none of the other bulbs
4. (b) parallel
5. resistance
6. (b) False
7. positive
8. resistance (or load)
9. (c) load
10. (a) $V_T = V_1 = V_2 = V_3$
11. current
12. sum
13. (a) $1/R_T = 1/R_1 + 1/R_2 + 1/R_3$
14. (a) *open*
15. parallel
16. (b) series
17. $I_T = I_1 = I_2 = I_3$
18. (d) sum
19. $V_T = V_1 + V_2 + V_3$
20. sum
21. $R_T = R_1 + R_2 + R_3$
22. $I_T = I_1 + I_2 + I_3$
23. resistance
24. (c) parallel
25. *"There never has been, and cannot be, a good life without self-control."*

Lesson 12: *Energy*
Current and Power

1. (a) less
2. voltage
3. liquids
4. (d) all of these
5. (b) different
6. (b) force times distance
7. (d) 600
8. work
9. newton
10. (a)



11. (d) work
12. (d) power
13. joule
14. watt
15. (c) *kilowatt-hour*
16. (a) work
17. (c) 1,000
18. (b) 25 cents
19. (b) False
20. *"Nothing in the world can take the place of persistence."*

Lesson 13: *Energy*
Keeping Electricity Safe

1. (b) False
2. fires
3. electrons
4. conduit
5. (d) provide a conduit to the ground
6. ground
7. (a) toaster
8. (b) low resistance short cut
9. (c) uses an electromagnet to open the circuit and stop the flow of electricity

10. (b) less than 1.0 amp
11. high
12. (a) True
13. (b) False
14. mechanical action (such as a electric motor)
15. (d) all of these
16. (a) low
17. (b) ultraviolet light
18. (d) electromagnet
19. (c) mechanical motion
20. (d) television
21. *"Giving a helping hand is often better than giving advice."*



Lesson 14: *Inventions & Discoveries*
Discovery by Design

1. (d) told them something about the size, shape and weight
2. (c) penny or iron washer
3. (d) steel tack or plastic paperclip
4. (b) use a magnet
5. was not
6. (d) steel thumbtack
7. radioactive
8. (c) naturally radioactive substances in Earth's crust
9. (b) outer space
10. (b) come together faster
11. (b) False
12. (b) False
13. (d) Robert Millikan
14. (b) gamma waves
15. (c) the North or South Poles
16. charge
17. (d) protons
18. (b) False
19. (a) True
20. positive
21. *"No one is useless in this world who lightens the burdens of another."*



Lesson 15: *Motion*
A Career in Physics May be for You

1. physical
2. matter, energy
3. (b) pure
4. (b) immediate
5. Acoustics
6. (a) by computer simulation
7. (d) a theory which is being researched
8. cold fusion
9. (b) very cold temperatures
10. (a) improves
11. (any order) transportation, communication, medicine
12. (a) use of light in electronics
13. heat
14. destructive
15. nondestructive
16. (c) high—physics teachers are in high demand
17. (b) False
18. citizen
19. (c) never ending curiosity and desire to discover secrets of life
20. *"It is not good to have zeal without knowledge, not to be hasty and miss the way."*

Ask for your QUIZ over Section 3.
Reminder: Students who score 85% or higher on the three section quizzes may be exempt from the chapter test!