ACTIVITY ANSWER KEY

Chapter 10, Section 3

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



Lesson 11: *Energy*

Albert Einstein and Nuclear Weapons

1. Albert Einstein
2. (c) the ***Kinetic Theory of Heat***
3. random
4. (b) blue
5. (a) brightness of the light has to be increased
6. (b) particle
7. Relativity
8. (a) is a constant in a vacuum
9. (b) greater than when it is at rest
10. fission
11. fusion
12. mass defect
13. (d) have its path curved
14. eclipse
15. (b) False
16. (b) had become the best-known scientist in the world
17. (b) nuclear fuel, such as plutonium-239
18. (d) Japan
19. (b) False
20. *"When I look at the mysteries of the universe, I cannot help but put myself in the class of deeply religious men."*



Lesson 12: *Inventions & Discoveries*

Particle Accelerators and Detectors

1. accelerator
2. (b) particle accelerator
3. electron
4. (c) ***linear accelerator***
5. (d) are bent in a circular path by magnets
6. (d) electron
7. synchrotron
8. (b) 1.25 miles
9. radioactive
10. ionization
11. (d) sheets of photographic film stacked together
12. zinc sulfide
13. (a) True
14. (b) False
15. radiation
16. Charles T. Wilson
17. (a) a condensation trail
18. (a) alpha particles
19. trail
20. *"Handle them carefully, for words have more power than atom bombs."*



Lesson 13: *Scientific Laws*

Conservation Laws

1. (a) True
2. (a) negative
3. (b) False
4. (b) are
5. (c) more
6. (a) True
7. 4.0330
8. 4.0026
9. (d) the mass defect
10. (a) moist air
11. bubbles
12. Hispanic

13. (d) the B-29 bomber that carried the atom bomb to Hiroshima
14. (a) used a camera to photograph them
15. physics
16. (d) the impact of a giant meteorite
17. (b) False
18. (a) more
19. nuclear
20. *"Thoughts hidden in the heart eventually find expression in life, revealing who we really are."*



Lesson 14: *Energy*
The Risks and Benefits of Nuclear Energy

1. computer
2. (b) fusion
3. (d) fission reaction
4. (d) fusion bomb
5. (b) False
6. (a) 0
7. England
8. Sweden
9. billion
10. (b) 35 to 45 years
11. (c) disposal of radioactive material
12. (a) the Chernobyl reactor in the Soviet Union
13. (a) during a safety test
14. containment
15. graphite (or carbon)
16. (a) True
17. (b) *cold fusion*
18. helium
19. fusion
20. *" . . . it is possible to discern enough of the universe's underlying order to tap energy so powerful that it can destroy its discoverers . . ."*



Lesson 15: *Elements*
Benefits of Radioactivity and Completion of the Periodic Table

1. less
2. Nuclear
3. (b) as a volunteer
4. insulin
5. RIA
6. isotope
7. (b) naturally occurring radioactive elements
8. (b) False
9. unstable
10. (c) Curie Institute in Paris, France
11. (d) France
12. (b) Prometheus
13. (d) are ***synthetic***
14. neutrons
15. plutonium
16. Pluto
17. (b) False
18. 118
19. *Uuo*
20. *"Always hold firmly to the thought that each one of us can do something to bring some portion of misery to an end."*

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!