ACTIVITY ANSWER KEY

Chapter 4, Section 3

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

Lesson 11: *Astronomy*

Stars

1. constellation
2. (b) False
3. (d) boundaries
4. (c) constellations were becoming too numerous
5. (b) False
6. light-year
7. 300,000; 186,000
8. 5,865,696,000,000
9. (b) 9 trillion, 460 billion, 800 million
10. (b) 6
11. (b) 4.3
12. (b) in 4.3 years
13. (a) True
14. (b) They are at different distances.
15. larger, smaller
16. hotter
17. (c) distance, size, temperature
18. (d) its temperature
19. _c_ very hot star
20. _e_ cool star
21. _a_ ***spectrum***
22. _d_ ***prism***
23. _b_ ***spectroscope***
24. (c) gas and chemical composition
25. North Star
26. (b) Sirius
27. (a) True
28. Sirius, Sun
29. (a) nowhere
30. (c) kidnapped
31. *"Aim for the Moon. If you miss, you'll land among the stars."*

Lesson 12: *Astronomy*

Uranus

1. seventh
2. spins on its side
3. backwards
4. (c) retrograde
5. (d) star
6. Georgium Sidus (or Star of George)
7. (d) 19th century
8. (a) rings
9. (a) True
10. Saturn
11. (a) sideways
12. (b) retrograde
13. (a) mostly hydrogen and helium with traces of methane
14. (c) bluish-green with a faint green circumference
15. Earth
16. Uranus
17. 17 hours, 14 minutes
18. 6.81 km/s
19. Earth
20. (c) important information
21. *"The more you learn about things that seem strange, the less strange they seem."*

Lesson 13: *Astronomy*

Neptune

1. (b) something was affecting the orbit of Uranus
2. 1846
3. twins, atmospheres
4. (b) False

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5. (a) rock and metal
6. (a) True
7. (c) Pluto's orbit is so elliptical that it crosses Neptune's orbit.
8. (c) storms
9. (c) 1,500 mph
10. (b) highest of all
11. orbit
12. Triton
13. (d) Both were ferocious guard dogs.
14. *"One event, decision or thing usually affects another."*
15. 49,528 km
16. Uranus
17. Neptune
18. 14.54
19. 17.23
20. Earth
21. Neptune
22. Neptune



Lesson* 14: *Astronomy

Pluto

1. (a) True
2. (b) False
3. (b) They were surprised by its size.
4. (b) Earth's Moon is larger.
5. (a) their orbits cross
6. (b) It is inclined the most.
7. (c) all molecules stop vibrating
8. coldest
9. (a) True
10. (b) False
11. double planet
12. (a) nitrogen ice and methane ice
13. (a) True
14. (b) False
15. Quaoar
16. (d) an Indian god of creation
17. (c) Dog Star
18. *"Do not overlook the little things in life. They may lead to something important!"*
19. Pluto
20. Mercury
21. Jupiter
22. (any order)Venus (and) Earth; Uranus (and) Neptune
23. 2,290 km
24. 6 days, 9 hours, 17 minutes
25. 248.53 years
26. Earth



Lesson* 15: *Physics

In the Beginning

1. truth
2. empirical
3. process (or research)
4. (any order) observation, classifying, measuring, experimenting, inferring, predicting, forming models, interpreting data
5. correctly
6. open
7. (a) True
8. chance, created
9. (a) the universe may be the result of intelligent design
10. (any order) scientific data, theories, suppositions, conjectures
11. (b) creationists
12. (first 3 any order) scientific data, theories, suppositions; ancient documents
13. (a) the universe is far too complex to have happened by chance over eons of time
14. _X_ scientific laws
    _X_ scientific method
    ___ ancient documents
    ___ evolutionary suppositions
15. (a) True
16. (c) a cosmic egg
17. (c) it exploded
18. (c) red
19. (d) the universe is expanding

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20. (b) Where did the matter in the cosmic egg originate?
21. (a) If systems left to themselves become disorderly, how did the universe become more complex?
22. (a) If radial motion cannot give rise to orbital motion, what made the planets start revolving around the Sun?
23. (a) mass and distance
24. (a) the gravitational pull becomes less
25. (b) Their compositions should be the same.
26. (a) True
27. all, true
28. scientific methods, true science
29. data, laws, process
30. (d) encourage the man to think in terms of scientific laws and empirical evidence
31. (b) False
32. (any order, wording may vary) life is very complex (or not as simple as circumstances may appear), one thing often leads to another, do not jump to conclusions, be observant of your surroundings, little things are important
33. *"Truth will always be truth, regardless of lack of understanding, disbelief or ignorance."*

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!

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