### CLASS 1 What is Astronomy?

- 1. It gives us an opportunity to be amazed at God's creation and how it works.
- 2. Star, Law
- 3. a, b, c, e.
- 4. False
- 5. b, c, e
- 6. c
- 7. False
- 8. True
- 9. This is an opinion question that I encourage the parent/teacher to discuss with the student.

### CLASS 2 History of Astronomy: Part 1

- 1. We cannot fully understand the present state of astronomy without knowing its past.
- 2. The Bible
- 3. Moses
- BC is Before Christ; AD is in the year of our Lord; BCE is Before Common Era; and, CE is Common Era
- 5. e
- 6. England
- Because there are no records of exactly why it was built or what it was used for, so while reasonable suggestions can be made, it's impossible to know exactly why it was built.
- 8. 1600 BC
- 9. The Seven Sisters
- 10.1400 BC
- 11.c, e
- 12.720 BC
- 13. False
- 14.1200 BC

#### PUZZLE

**Stonehenge**—Made up of stones that can weight 32 tons and are oriented to the sunrise and sunset of the winter and summer solstice.

**Nebra Sky Disc**—Bronze plate with gold foil that depicts a half moon and a full moon or the sun.

### Venus Tablet of Ammisaduqa—

Found at the library at Nineveh and describes observations in the stars.

**Vedanga Jyotisha**—Indian text that describes the winter solstice.

#### Homer's Iliad and Odyssey—The

constellations Orion, Ursa Major, Sirius, and the Pleiades are mentioned.

## CLASS 3 History of Astronomy: Part 2

- 1. Philosophers
- 2. Aristotle
- 3. False
- It means that he taught that the sun and other planets revolved around the earth (or that the earth is the center of the solar system).
- 5. He is a Greek astronomer who lived in the second century BC and was the first person known to have described a heliocentric solar system model.
- 6. Ptolemy
- 7. True
- 8. b
- 9. Sun, middle (or center)
- 10. In a heliocentric model, the sun is at the center of the solar system and the planets orbit around the sun, whereas in a geocentric model, Earth is at the center of the solar system and the sun and planets orbit it.
- 11. Copernicus
- 12. True

### CLASS 4 History of Astronomy: Part 3

- 1. False
- 2. a, c, d, f
- 3. Astrophysics
- 4. True
- 5. False
- 6. b, c, e
- 7. True
- 8. Albert Einstein
- 9. Edwin Hubble

# CLASS 5 Astronomical Measurements

- 1. True
- Space is way too big for those measurements to have any meaning or be helpful
- 3. b, d, f
- 4. a
- 5. A light year is the distance light travels in one year and is equal to 5.88 trillion miles
- 6. 10AU, 10 light years, 10 parsec
- 7. False
- 8. False
- 9. True
- 10. Parallax and arcsecond
- 11.3.25

# CLASS 6 Parallax Explained

## 1. False

- As the landscape passes by, objects in the foreground (near) appear to move faster/ more than objects in the background (far away). Or, objects in the background (far away) appear to move slower/less than objects in the foreground (near).
- Objects that are far away appear to move less compared to closer objects AND Objects that are close appear to move more compared to farther objects.
- 4. True
- 5. False
- 6. True
- 7. More
- 8. The earth is moving.
- 9. Tangent

## **REVIEW: CLASSES 1–6**

#### Across

- 2. Astrology
- 4. Galileo
- 6. Nomos
- 7. Bible
- 9. Stonehenge
- 13. Venus Tablet of Ammisaduqa
- 15. William Herschel
- 17. Annie Jump Cannon
- 18. Aristarchus

### Solar System: CLASS 7 Introduction and Planets

- 1. d
- 2. 39.5 times farther ("about 40" would be OK)
- 3. An elliptical orbit
- The solar system is so large and the spaces between the planets so great that nothing would be visible if drawn to scale. Everything would be too small to see, except maybe the sun would be a tiny yellow dot on a piece of 8x11 paper.
- 5. 5.88 trillion miles. 1 light year. About 1/3, or 0.3, parsec.
- 6. 33.72 years
- 7. False
- 8. a, b, c, d
- 9. The sun
- 10. Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus. Neptune
- 11.b, c, f
- 12. Mercury, Jupiter
- 13.True

11. Parsec 12. Parallax

8. Light Year 10. Copernicus

5. Astronomical Unit

- 14. Astronomy
- 16.Law

Down

1. Principia

3. Logos