Checkpoint 1- Scientific Method

1. If the parking lot has 23 silver cars, 20 black cars, 13 white cars, and 10 cars of other colors, what should my conclusion be if my hypothesis was that people in Harper Woods schools drive more black cars that any other color? My hypothesis was incorrect. The color silver is driven more.
2. An observation is something we _see_, _hear_, _smell_, _taste_, or _feel_ and is not an opinion in any way.
3. The group that does not get what is being tested in an experiment is called the _control_ group.

Checkpoint 2- Metric System

4. The metric prefixes in order from largest to smallest are: (Remember King Henry)
kilo, _hecto_, _deka_, _deci_, _centi_, _milli_

5. Basic unit of volume - _liter_
6. Basic unit of length - _meter_
7. Basic unit of temperature - _degrees Celsius_
8. Basic unit of mass - _gram_
9. Instrument used to measure mass - _triple beam balance_
10. Instrument used to measure volume - _graduated cylinder_

Checkpoint 3 – Big Bang Theory

11. The evidence that scientists use to determine if objects in the universe are moving away from us is called _red shift_.
12. A description of the movement in the universe right now would be _expanding_ and _accelerating_.
13. The Big Bang is a theory that describes what scientist think happened when the _universe_ was created.

Checkpoint 4 – Stars

14. What is the life cycle stages for an average star like our sun?
nebula, protostar, _main sequence_, _red giant_, _white dwarf_ and eventually black dwarf.
15. What will be the end results in the life of a very large mass star? It will _supernova_ and turn into either a _black hole_ or a _neutron star_.
16. Astronomers have noticed that some stars give off blue light. What does this tell us about their temperature? it is very hot.

Checkpoint 5 – The Sun

17. What are the forms of electromagnetic radiation released by the sun from lowest to highest frequency?
radio waves, microwaves, infrared, visible light, ultraviolet rays, x-rays, gamma rays

The following is true about the effect of our atmosphere on the Sun's radiation:

18. The ozone layer absorbs ultraviolet radiation
19. The upper atmosphere absorbs x- rays and gamma rays.
20. The atmosphere protects from solar winds.

The following variables affect the amount of solar radiation received by Earth:

21. solar flares, sunspot, Earth's position

Checkpoint 6 – Kepler's Laws

22. Kepler's first law states that the orbit of a planet around the sun is an ellipse.
23. What did Kepler say in his ~~last~~ third law about the velocity of objects in large orbits with more distance from the sun compared to smaller orbits and distances? planets further from the sun go around slower
24. The point in its orbit at which the planet is closest to the Sun and moving fastest is called the perihelion.
25. The point in its orbit where the planet is furthest from the Sun and is moving the slowest is the aphelion.

Capstone 2

26. Earth formed 4.6 billion years ago.
27. Radi0active decay is useful in dating rocks because it is constant, regardless of environment, temperature and other physical changes.
28. Why can't scientists rely on fossil evidence to study the Precambrian time period (prior to 600 million years ago)? there was no living things then
29. Earth's early atmosphere did not include nitrogen and oxygen, the two gases that make up most of our atmosphere today.
30. When Earth was molten, the densest materials sink while the less dense materials float, creating interior layers in the Earth.

Study Ideas – Nothing can be used on test

flashcards (quizlet)

rewrite notes

Put some information to song

have someone quiz you

slide show

quiz review games