

Name _____

2018 Earth Science Midterm Exam Study Guide

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 than any other color?
2. An observation is something we _____, _____, _____, _____, or _____ 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 _____ group.

Checkpoint 2- Metric System

4. The metric prefixes in order from largest to smallest are: (Remember King Henry)
_____, _____, _____, _____, _____, _____
5. Basic unit of volume - _____
6. Basic unit of length - _____
7. Basic unit of temperature - _____
8. Basic unit of mass - _____
9. Instrument used to measure mass - _____
10. Instrument used to measure volume - _____

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 _____.
12. A description of the movement in the universe right now would be _____ and _____.
13. The Big Bang is a theory that describes what scientists think happened when the _____ was created.

Checkpoint 4 – Stars

14. What are the life cycle stages for an average star like our sun?
_____, protostar, _____, _____, _____ and eventually black dwarf.
15. What will be the end results in the life of a very large mass star? It will _____ and turn into either a _____ or a _____.
16. Astronomers have noticed that some stars give off blue light. What does this tell us about their temperature?

Checkpoint 5 – The Sun

17. What are the forms of electromagnetic radiation released by the sun from lowest to highest frequency?

_____, _____, _____, _____,
_____, _____, _____

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

18. The _____ layer absorbs _____ radiation

19. The upper atmosphere absorbs _____ rays and _____ rays.

20. The atmosphere protects from _____ winds.

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

21. _____, _____, _____

Checkpoint 6 – Kepler's Laws

22. Kepler's first law states that the orbit of a planet around the sun is an _____.

23. What did Kepler say in his their law about the velocity of objects in large orbits with more distance from the sun compared to smaller orbits and distances?

24. The point in its orbit at which the planet is closest to the Sun and moving fastest is called the _____.

25. The point in its orbit where the planet is furthest from the Sun and is moving the slowest is the _____.

Capstone 2

26. Earth formed _____ ago.

27. Radi0active decay is useful in dating rocks because it is _____, 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)?

29. Earth's early atmosphere did not include _____ and _____, the two gases that make up most of our atmosphere today.

30. When Earth was molten, the densest materials _____ while the less dense materials _____, creating interior layers in the Earth.