

Name \_\_\_\_\_

### What Do You Already Know about Earth Science?

Directions: Answer these questions to the best of your ability. You will not be graded on this, but it will give you some idea of what we study in Earth Science. Put a box around any words whose meaning you do not understand.

1) Circle the pair of hemispheres where you live:

Eastern, Northern    Eastern, Southern    Western, Northern    Western, Southern

2) Identify the likelihood of each of the following hazards to you here in Englewood by writing "1" next to the most likely down to "5" next to the least likely:

\_\_\_\_\_ earthquake  
\_\_\_\_\_ hurricane  
\_\_\_\_\_ severe winter storm  
\_\_\_\_\_ thunderstorm  
\_\_\_\_\_ tornado

3) Where does the water in your home and school come from?  
(Trace it back as far as you can.)

4) How long does it take Earth to make one "rotation"?

One "revolution"?

5) How long does it take the Moon to make one revolution around Earth?

How long does it take the Moon to make one rotation?

What is an interesting fact that results from this?

6) Name six "weather elements".

7) Name two modern weather observation methods that make forecasting accurate about 90% of the time.

8) Name six common minerals.

9) What are the three basic groups of rocks?

10) What two kinds of rocks form the bedrock of Englewood? How did they form?

11) What two imaginary lines form the basis for measuring latitude and longitude?

12) To the nearest degree, what is Englewood's latitude \_\_\_\_\_ ° \_\_\_\_\_ and longitude \_\_\_\_\_ ° \_\_\_\_\_?

13) In which time zone do you live?

14) On what layer of earth do we live?

Name the layer that is above us

15) Name the three layers of the Earth beneath us, in order downward to the center.

Which is molten and probably the cause of Earth's magnetic field?

16) What object in space is closest to us?

17) Name the planets in order outward from the Sun. Circle the planet that is closest to us.

18) What creates the Sun's energy?

19) Which is older: ocean floors or continental cratons? Approximately how old are the oldest rocks in each?

20) What two conditions are most likely to preserve an organism as a fossil?

21) How long ago did glaciers cover what became Englewood?

22) What was "Glacial Lake Hackensack?"

23) What is the "greenhouse effect?"

24) Name three important "greenhouse gases." Which has been measured to show a rapid increase during the past century?

25. Match each event in Earth's history with its estimated date by placing the letter next to the event:

- |  |                                 |
|--|---------------------------------|
| _____ abundant fossils of many phyla, including trilobites | (1) 1.6 mya (million years ago) |
| _____ age of the Universe                                  | (2) 65 mya                      |
| _____ age of the Solar System, including Earth             | (3) 65 – 130 mya                |
| _____ dinosaurs dominant lifeforms on land and sea         | (4) 195 mya                     |
| _____ earliest human-like organisms                        | (5) 400 - 560 mya               |
| _____ extinction of dinosaurs and rise of mammals          | (6) 2,000 mya (2 bya)           |
| _____ first photosynthetic plants                          | (7) 3,400 mya (3.4 bya)         |
| _____ oldest known rocks                                   | (8) 3,900 mya (3.9 bya)         |
| _____ oldest known fossils                                 | (9) 4,600 mya (4.6 bya)         |
| _____ rocks in Englewood formed                            | (10) 13.7 bya                   |