Date _____

The Parts of the Earth

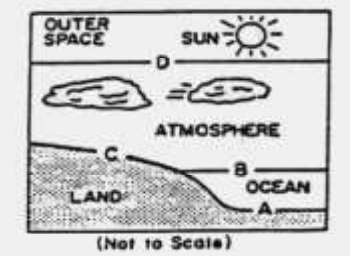
1. The lithosphere is the
   1 solid outer part of the Earth
   2 liquid part of the Earth
   3 gaseous part of the Earth
   4 solid and liquid parts of the Earth

2. Which statement most accurately describes the Earth's atmosphere?
   1 The atmosphere is layered, with each layer possessing distinct characteristics.
   2 The atmosphere is the gas that surrounds some of the Earth.
   3 The atmosphere's altitude is less than the depth of the ocean.
   4 The atmosphere is more dense than the hydrosphere but less dense than the lithosphere.

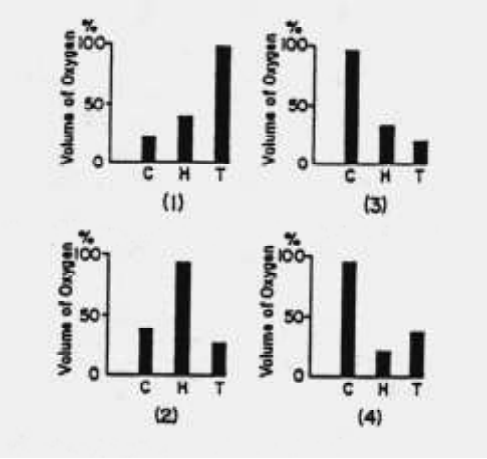
3. Which two elements listed below are most abundant by mass in the Earth's crust?
   1 silicon and oxygen
   2 hydrogen and iron
   3 oxygen and magnesium
   4 hydrogen and calcium

4. Which line best identifies the boundary between the lithosphere and the troposphere?

   1 line A
   2 line B
   3 line C
   4 line D



5. According to the *Earth Science Reference Tables*, which graph best represents the percent of oxygen, by volume, found in the Earth's crust (C), hydrosphere (H), and troposphere (T)?



6. In which group are the spheres of the Earth listed in order of increasing density? (Remember … you know what each of these are made up of …)
   1 atmosphere, hydrosphere, lithosphere
   2 hydrosphere, lithosphere, atmosphere
   3 lithosphere, hydrosphere, atmosphere
   4 lithosphere, atmosphere, hydrosphere

7. Ozone gas in the Earth's atmosphere helps to protect life on the Earth. This protection is due to the ability of ozone to absorb
   1 radio waves
   2 ultraviolet radiation
   3 gamma radiation
   4 visible radiation

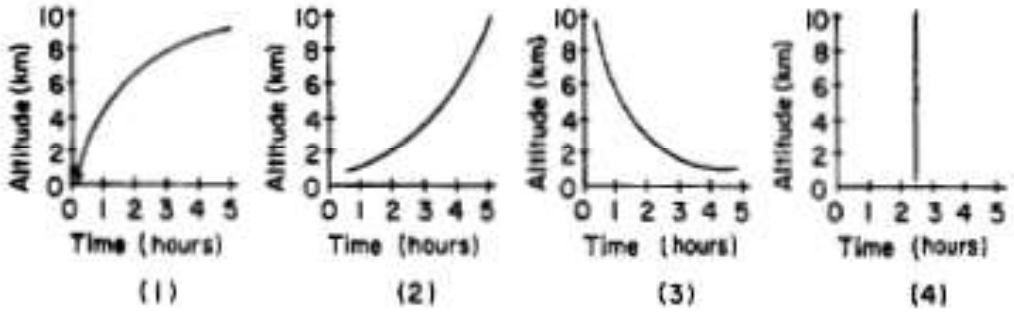
Base your answers to **questions 8-12** on the *Earth Science Reference Tables*, the information and the chart below, and your knowledge of Earth Science. The data were recorded by weather instruments carried into the atmosphere by a gas-filled balloon.

8. As the altitude of the balloon increased, the air pressure
   1 increased, only
   2 decreased, only
   3 remained the same
   4 increased and then decreased

9. What kind of relationship exists between altitude and air pressure?
   1 direct
   2 inverse
   3 cyclical
   4 unaffected

Elapsed Time (min) (Time After Balloon is Released)	Altitude of Balloon Above Ground Level (km)	Atmospheric Pressure Recorded (mb)
30	2.00	800
60	3.75	630
90	5.25	530
120	6.50	450
150	7.50	380
180	8.25	350
210	8.75	330
240	9.00	300
270	9.12	290
300	9.20	282

10. Which graph best represents the relationship between elapsed time and the altitude of the balloon?



11. What is the most abundant element in the atmosphere surrounding this balloon?
   1 hydrogen
   2 nitrogen
   3 carbon dioxide
   4 oxygen

12. How did the water vapor content and the air temperature change as the balloon's altitude increased? (Use the *Earth Science Reference Tables*)
   1 water vapor content and air temperature both decreased
   2 water vapor content and air temperature both increased
   3 water vapor content increased and air temperature decreased
   4 water vapor content decreased and air temperature increased

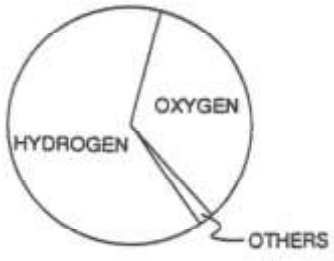
13. The element oxygen is found in the Earth's
    1 troposphere, only
    2 hydrosphere, only
    3 troposphere and hydrosphere, only
    4 troposphere, hydrosphere, and crust

14. Which substance released by humans into the atmosphere has contributed to ozone depletion?
    1 carbon dioxide
    2 chlorofluorocarbons
    3 sulfur
    4 carbon monoxide

15. In which group are the layers of the Earth's atmosphere listed in order of increasing thickness?
    1 troposphere, mesosphere, stratosphere, thermosphere
    2 troposphere, stratosphere, mesosphere, thermosphere
    3 thermosphere, mesosphere, stratosphere, troposphere
    4 troposphere, thermosphere, stratosphere, mesosphere

16. The graph to the right represents the percentage of elements by volume.

    This graph best represents the elements of the Earth's
    1 lithosphere
    2 hydrosphere
    3 troposphere
    4 stratosphere



17. What is the approximate temperature at the tropopause?
    1 0°C
    2 55°C
    3 15°C
    4 -55°C

18. As the altitude in the stratosphere increases, the air temperature in the stratosphere
    1 increases
    2 decreases
    3 remains the same

19. The ozone layer is located in the
    1 troposphere
    2 stratosphere
    3 hydrosphere
    4 thermosphere

20. The solid rock material that directly underlies sediments on the ocean floor is part of the Earth's
    1 lithosphere
    2 hydrosphere
    3 troposphere
    4 outer core