Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Parent signature\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2nd 9 weeks Benchmark Study Guide answer sheet

**Science Benchmark is on Wednesday, December 14th**

1. Folding and faulting are caused by \_\_\_\_\_\_\_\_Pressure\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
2. The peaks of a young mountain are \_\_\_\_Sharp, Tall and Jagged\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
3. A volcanic cone made up of rock particles, dust, and ash is a \_\_\_\_Cinder Cone\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
4. An instrument that detects and measures earthquakes is a \_\_\_\_\_Seismograph\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
5. Earthquake waves that travel along Earth's surface are \_ L\_\_\_\_-waves.
6. Magma that reaches the earth's surface is called \_\_\_\_\_\_Lava\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
7. One example of a landform on Earth's surface is \_\_\_\_\_\_\_Mountains\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
8. A volcanic cone with layers of lava and rock particles is a \_\_\_\_\_Composite\_\_\_\_\_\_\_\_\_\_\_\_\_\_ cone.
9. The second seismic waves to be recorded by a seismograph are \_S\_\_\_-waves.
10. An upward fold in a mountain is called a \_\_\_Anticline\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ while a downward fold is a \_\_\_\_\_Syncline\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
11. The smallest part of a compound that has all of the properties of that substance is a(n) \_\_\_\_\_Molecule\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
12. An acid test is used to test minerals for \_\_\_\_Calcium Carbonate\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
13. The formula for density is \_\_\_\_\_Mass / Volume\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
14. Bodies of water often contain minerals that are \_\_\_\_dissolved\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
15. The softest mineral on Moh's hardness scale is \_\_\_\_\_\_\_\_talc\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
16. The luster of pyrite can be described as \_\_metallic\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
17. Scientists study the crystal structure of minerals using \_\_\_\_\_\_x-rays\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
18. A substance that is not formed from living things or the remains of living things is \_\_\_\_

\_\_inorganic or clastic\_\_\_\_\_\_\_.

1. One molecule of CO2 has \_\_\_1\_\_\_\_ atom of carbon and \_\_\_2\_\_\_ atoms of oxygen.
2. A mineral with \_\_\_\_fracture\_\_\_\_\_\_\_\_\_\_\_\_ breaks into pieces with uneven edges.
3. All materials in Earth's crust are made up of \_\_\_oxygen\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_Silicon\_\_\_\_\_\_\_\_\_\_\_\_\_.
4. All rocks are made up of one or more \_\_\_\_\_\_\_\_\_Minerals\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
5. Rocks formed from once-living things are usually classified as \_\_\_\_\_\_\_\_\_Non-Clastic Sedimentary\_\_\_\_\_\_\_\_\_\_ rocks.
6. The only kind of rock that can form directly from magma is \_\_\_\_\_\_\_Igneous\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
7. Silt and sand are examples of \_\_\_\_\_\_\_\_sediments\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
8. Crystal size in an igneous rock is determined by the rate at which magma in the rock \_\_\_\_\_cools\_\_\_\_\_\_\_\_\_\_\_\_.
9. A rock formed when an existing rock is changed by heat and pressure is a \_\_\_\_\_\_\_metamorphic\_\_\_\_\_\_\_\_\_\_\_\_\_ rock.
10. The texture of a metamorphic rock that does not have minerals arranged in bands is described as \_\_\_\_\_\_\_\_\_\_\_non-foliated\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
11. Limestone is formed from dissolved \_\_\_shells\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
12. The process by which rocks slowly change from one kind of rock to another is called

\_\_Rock Cycle\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

1. The process by which a gas changes to a liquid is called \_\_\_\_\_\_\_condensation\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
2. In dry weather, the level of the water table \_\_\_drops\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
3. Old Faithful is a \_\_\_\_\_\_geyser\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
4. The valley of an old river is \_\_u-shaped and wide\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
5. About \_\_\_23\_\_\_\_% of earth's freshwater is stored as \_\_\_\_groundwater\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
6. Water that evaporates from earth and is changed to a gas is called \_\_\_\_\_\_\_\_\_evaporation\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
7. A cloud is a collection of \_\_\_water droplets and ice crystals\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
8. The pipe for a well should be \_\_\_\_\_\_\_lower\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ than the lowest level of the water table.
9. Artificial lakes are called \_\_\_\_\_\_\_reservoirs\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
10. A pump is usually used to get water from a \_\_\_\_well\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
11. Hydrolysis, carbonation, and oxidation are kinds of \_\_\_\_\_\_chemical\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ weathering.
12. Mechanical weathering does not change the \_\_\_\_\_\_chemical\_\_\_\_\_\_\_\_\_\_\_\_\_\_ composition of rocks.
13. Root action and ice wedging are kinds of \_\_\_\_\_mechanical\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ weathering.
14. Potholes in streets are caused by \_\_\_\_\_ice wedging\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
15. Carbon dioxide can dissolve in rain to form \_\_\_\_carbonic acid\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
16. \_\_\_\_carbonation\_\_\_\_\_\_\_\_ is a chemical reaction that occurs when carbonic acid reacts with certain minerals.
17. \_\_\_\_hydrolysis\_\_\_\_\_\_\_\_\_\_\_\_ is a chemical reaction that occurs when minerals with little water content react with water.
18. \_\_\_\_\_oxidation\_\_\_\_\_\_\_\_\_\_\_\_ is a chemical change that occurs when oxygen reacts with another substance.
19. During the day, rocks will usually warm up and \_\_\_\_\_expand\_\_\_\_\_\_\_\_\_\_\_\_\_\_; at night the rock will cool down and \_\_\_contract\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. This will cause pieces of the rock to break off.
20. The leaves of certain plants, such as lichen, that wear away a rock is an example of \_\_\_chemical\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ weathering.

Fill in the missing parts of the rock cycle diagram below:

