Science 9 Demonstration – Limestone and the carbon cycle

Directions: After the demonstration fill in the blanks below. Refer to the answers on the following page. All the words are listed for each question, but the order is mixed up. Write the words in the correct order.

1. Limestone is a __________________ rock made from ________________ of the compound ___________ _______________. The formula for this is _________________.
2. ________________ _______________ is a gas found in very small concentrations in the _________________. It ________________ very easily in water to become ________________ acid.
3. Carbonic acid has the formula _______________. The ________________ ion, ________, will attach onto a calcium ion in the water producing ________________ _______________.
4. ________________ _______________ is not ________________ in ________________ and so it settles to the bottom of the water body as a _________________.
5. ________________ such as ________________ and ________________ also use calcium carbonate to produce their hard ________________ ________________.
6. The ________________ together with the ________________ _______________ build up on the bottom over ________________ and become _________________.
7. These ________________ can be ________________ of meters thick. The great ________________ causes the material to chemically ________________ together forming the rock _________________.
8. If the ________________ is ________________ deep into the earth and ________________ under great ________________ it becomes _________________.
9. Through plate ________________ the buried ________________ can be brought to the ________________ of the earth, such as what we see in the ________________ Mountains. Here we find huge limestone _________________.
10. The limestone and marble deposits are both ________________ _______________ of _______________. These occur both in the ocean and on _________________.
11. Man accesses these ________________ on ________________ by _________________. He uses the ________________ to produce both ________________ and carbon dioxide.
12. The formula for ________________ is _________________. It is used in making ________________, for ________________, and in some _________________.


13. The _______________ ________________ is driven off the limestone by heating it to a very high ________________. It is used to in industry to make ________________ and used to make ________________.

14. Processing _______________ causes a tremendous amount of ________________ ________________ to be released into the _________________. It is partly to blame for global _________________.

15. Carbon dioxide also ________________ in ________________ water producing ______________ rain. This destroys many ________________ _________________.

16. With the ________________ becoming more ________________ many ________________ organisms are being ________________ affected, and some are ________________.

17. _______________ must learn to ________________ the ________________ with more ________________ or he will be next organism to become _________________.

Words used:

1. CaCO₃ sedimentary sediments calcium carbonate
2. atmosphere carbonic carbon dissolves dioxide
3. calcium carbonate carbonate H₂CO₃ CO₃²⁻
4. sediment carbonate water soluable calcium
5. clams invertebrates protective coral shells
6. time sediments shells CaCO₃ compressed
7. deposits limestone bond pressure hundreds
8. marble subducted pressure heated limestone
9. limestone tectonics Rocky surface deposits
10. stores term long carbon land
11. limestone stores lime land mining
12. industries cement yards CaO lime
13. carbonates dioxide temperature soda-pop carbon
14. dioxide carbon limestone warming atmosphere
15. dissolves acid aquatic rain habitats
16. oceans acidified dying adversely marine
17. treat environment man extinct respect