

DATE:

NAME:

Key

CLASS:

TOPICS 1-3

BLM 3-6

ASSESSMENT

Topics 1-3 Quiz

Goal • Demonstrate your understanding of the concepts presented in Topics 1-3.

What to Do

Read each question carefully before answering in the space provided. If you work at a steady pace, you should have enough time to finish.

Definitions

Define each term. Use full sentences.

1. nutrient any chemical substance used by cells for energy, growth, reproduction and repair.
2. biological magnification The process by which chemical substances that are difficult to break down accumulate: increase in ^{concentration} in higher trophic levels.
3. pesticide chemical substances used to control the growth, reproduction, or likelihood of survival of a pest species.
4. indicator chemical substances that change colour in a chemical reaction with an acid or base.
5. leaching the process in which soluble chemical substances are dissolved from soils and carried away.

Matching

Match each description in column A with the correct term in column B.

- | A | B |
|----------------------------------------------------------------------------------------------------|-----------------|
| 6. A mineral need in amounts greater than 100 mg per day.
<u>macromineral</u> | litmus |
| 7. The process in which chemicals collect in the tissues of an organism.
<u>bioaccumulation</u> | scrubber |
| 8. A mixture of plant compounds extracted from certain lichens.
<u>litmus</u> | toxins |
| 9. Chemicals that cause serious illness or death depending on the dose amount.
<u>toxins</u> | macromineral |
| 10. A device that removes gases from industrial exhausts.
<u>scrubber</u> | bioaccumulation |

Short Answers

11. Why is a balanced diet important?

It ensures that you are taking in correct chemical substances in amounts adequate to maintain health.

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Topics 1-3 Quiz (continued)

12. What important role do plants serve in providing us with the materials essential to continued health?

Plants accumulate certain minerals from the soil that we need for health. Also, they synthesize many of the organic compounds we require.

13. What characteristics would be important for a safe and effective pesticide?

The pesticide would biodegrade in a short amount of time and be toxic only to certain species.

14. What is the difference between a toxin and a poison?

Both can cause illness or death. A toxin produces an immune response and a poison will not.

15. List two characteristic differences between an acidic substance and a basic substance.

Acids taste sour; Bases taste bitter
Acids turn litmus blue; Bases turn litmus red.
Acids $\text{pH} < 7$; Bases $\text{pH} > 7$.

16. Describe the process by which acid precipitation occurs.

Oxides of carbon, nitrogen and sulphur are released into the atmosphere and get "trapped" by clouds. They react with water vapour to produce acids. As the clouds produce precipitation the acid in the snow/water etc falls to Earth.