The Study of Life

In your textbook, read about the science of biology.

Answer the following questions.

1. What is the primary focus of all biological studies?

2. What is meant by the statement, “Living things do not exist in isolation”?

In your textbook, read about why biologist study the diversity of life.

For each of the statements below, write true or false.

3. People study biology only if they are planning to become biologists.

4. By studying biology, you can better appreciate the great diversity of species on Earth and the way each species fits into the dynamic pattern of life on the planet.

5. The study of biology includes the investigation of interactions among species.

In your textbook, read about the characteristics of living things.

Complete each statement.

6. To be considered __________________, something must exhibit all of the __________________ of life.

7. __________________ is another word for “living thing.”

8. Every living thing, from simple, single-celled organisms to complex, multicellular plants and animals, is made up of parts that function together in an orderly living __________________.

Read each of the following statements. If it describes the process of reproduction, write yes. If not, write no.


10. An amoeba divides in half.

11. A bean plant produces seeds in long pods.

12. Pollen grains are released from a flower.

13. A starfish produces a new arm after losing one to a predator.
Circle the letter of the choice that best completes the statement.

14. A species is defined as a group of similar-looking organisms that
   a. undergo similar developmental changes.           b. can interbreed.
   c. can interbreed and produce fertile offspring.    d. reproduce in the same way.

15. Every organism begins life as a(n)
   a. embryo.            b. single cell.            c. nucleus.        d. fertilized egg.

16. A corn plant producing ears of corn is an example of
   a. growth.           b. reproduction.          c. development.   d. all of these.

17. If members of a species fail to reproduce successfully, the species
   a. will eventually become extinct.                   b. will not develop normally.
   c. will evolve into a new species.                  d. will remain unchanged.

Complete the table below by checking the correct column for each example.

<table>
<thead>
<tr>
<th>Example</th>
<th>Stimulus</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>18. The recess bell ringing at an elementary school</td>
<td></td>
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<tr>
<td>19. Your mouth watering at the sight of food on a plate</td>
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<td>20. A sudden drop in air temperature</td>
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<td>21. A flu virus entering your body</td>
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<tr>
<td>22. Getting butterflies in your stomach before giving a speech</td>
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</tbody>
</table>

Answer the following questions.

23. Explain the concept of homeostasis.

   ____________________________________________________________
   ____________________________________________________________
   ____________________________________________________________

24. What is an adaptation?

   ____________________________________________________________
   ____________________________________________________________
   ____________________________________________________________

25. What is evolution?

   ____________________________________________________________
   ____________________________________________________________
   ____________________________________________________________