Section 1–3 Studying Life (pages 16–22)

This section describes the characteristics of living things. It also explains how life can be studied at different levels.

Introduction (page 16)
1. What is biology?

Characteristics of Living Things (pages 16–20)
2. What is a cell?

3. Circle the letter of each sentence that is true about cells.
   a. A cell is the smallest unit of an organism that can be considered alive.
   b. A multicellular organism may contain trillions of cells.
   c. A living thing that consists of a single cell is a multicellular organism.
   d. Organisms are made up of cells.

4. What are two types of asexual reproduction?
   a. __________________________________________
   b. __________________________________________

5. Living things are based on a universal ____________________

6. Circle the letter of each sentence that is true about living things.
   a. The life cycle of many organisms involves development.
   b. For bacteria, growth is mostly a simple increase in size.
   c. Each type of organism has a distinctive life cycle.
   d. Cells may change in number but never differentiate.

7. Why does an organism need energy and a constant supply of materials?

8. What is metabolism?

   __________________________________________
   __________________________________________
9. Is the following sentence true or false? All organisms respond to the environment in exactly the same ways. ________________

10. What is homeostasis? ____________________________________________________________________

11. A group of organisms that changes over time is said to ________________.

Branches of Biology (pages 20–21)

Match the different kinds of biologists with the focus of their study.

<table>
<thead>
<tr>
<th>Kinds of Biologists</th>
<th>Focus of Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>12. Zoologist</td>
<td>a. Plants</td>
</tr>
<tr>
<td>13. Botanist</td>
<td>b. Ancient life</td>
</tr>
<tr>
<td>14. Paleontologist</td>
<td>c. Animals</td>
</tr>
</tbody>
</table>

15. Label each of the illustrations below according to the level of study represented.

16. The largest level of biological study is the ________________.

Biology in Everyday Life (page 22)

17. What kinds of information can the study of biology provide about matters affecting human society? ____________________________________________________________________

________________________________________________________________________________________