Section: Characteristics of Living Things

LIVING THINGS HAVE CELLS

1. The smallest unit that can perform all life processes is called a(n) _____________.

2. All living things are composed of one or more _________________.

3. What covers a cell?

4. What does a cell contain?

5. Describe how the contents of a cell are protected from the cell's environment.

6. In an organism containing many cells, how is the work of the cell performed?

LIVING THINGS SENSE AND RESPOND TO CHANGE

7. Anything in the environment that causes a reaction or change in an organism is called a(n) _________________.

Name ______________________  Class _______________  Date _______________
8. What are three examples of stimuli given in the text?

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

9. When an organism’s outside environment changes, through what process does the organism maintain a stable internal state?

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10. Why must an organism maintain stable internal conditions?

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11. What is your body trying to do when you are either shivering or sweating?

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12. How do some animals control their body temperatures?

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________________________________________________________________________
LIVING THINGS REPRODUCE
13. Two parents produce offspring that share their characteristics through reproduction.
14. A single parent produces offspring identical to the parent through reproduction.
15. Most single-celled organisms reproduce through reproduction.
16. Most animals and plants reproduce through reproduction.

LIVING THINGS HAVE DNA
17. What does DNA (deoxyribonucleic acid) do?
   a. DNA controls the structure and function of cells.
   b. DNA breaks down food in cells.
   c. DNA acts as a stimulus in the environment.
   d. DNA acts as a preservative in foods.

18. What do organisms pass on to their offspring?
   a. their cells
   b. their DNA
   c. copies of their DNA
   d. copies of their cells

19. The passing of traits from parents to offspring is called .
LIVING THINGS USE ENERGY
20. What are three examples of activities of life carried out by all organisms?

21. The total of all chemical activities that an organism performs is an organism's _________________.

LIVING THINGS GROW AND DEVELOP
22. How does a single-celled organism grow?

23. How do organisms with many cells grow?

24. In addition to getting larger, what other things might happen as living things grow?
### Answer Key

**Directed Reading A**

**SECTION: CHARACTERISTICS OF LIVING THINGS**

1. cell
2. cells
3. membrane
4. Answers will vary. Sample answer: A cell contains all of the materials necessary for life.
5. Answers will vary. Sample answer: The cell’s membrane separates the contents of a cell from the surrounding environment.
6. Different kinds of cells perform specialized functions.
7. stimulus
8. Answers will vary. Sample answer: should include three of the following: chemicals, gravity, light sounds, hunger, touch, anything that causes a response
9. homeostasis
10. Answers will vary. Sample answer: Many chemical reactions that keep an organism alive can take place only when conditions are just right, so the organism’s internal conditions must stay stable.
11. It’s trying to return itself to its normal temperature.
12. Answers will vary. Sample answer: Animals control their temperatures by changing their environments. When they get too hot they move to the shade. When they get too cold, they move into the sunlight.
13. sexual
14. asexual
15. asexual
16. sexual
17. A
18. C
19. heredity
20. Answers will vary. Sample answer: should include three of the following: making food, breaking down food, moving materials into and out of cells, building cells

21. metabolism
22. The cell gets larger and divides, which makes other organisms.
23. The number of cells increases, and the organism gets bigger.
24. Answers will vary. Sample answer: As they grow, living things may develop and change, passing through different stages on their way to adulthood.

**SECTION: THE NECESSITIES OF LIFE**

1. water, air, a place to live, food
2. D
3. C
4. three days
5. B
6. A
7. D
8. photosynthesis
9. Answers will vary. Sample answer: All organisms need all the things they need to survive in the place where they live.
10. Answers will vary. Sample answer: They compete for food, water, and other necessities.
12. Answers will vary. Sample answer: Organisms use nutrients to replace cells and to build body parts.
13. C
14. D
15. C
16. P
17. P
18. D
19. Answers will vary. Sample answer: Organisms break down food in order to use the nutrients in it.
20. molecules
21. compounds
22. proteins, carbohydrates, lipids, ATP, nucleic acids
23. C
24. A
25. D
26. B