**CHAPTER 1**

**A Growing and Changing Body**

**Directions**
- Use lesson vocabulary in the Word Bank to complete each **Summary**.
- Read the directions provided to complete each **Lesson Details**.

**Word Bank**
- abstract thinking
- environment
- hormones
- neurons
- system
- cell
- growth spurt
- joint
- organs
- tendons
- concrete thinking
- heredity
- ligaments
- prenatal
- tissues

**Lesson 1** pp. 4–9

**Summary** The basic unit of structure of all living things is the _____________.

Cells that look alike and work together make up the _____________ that form body parts. A group of _____________ form a body _____________.

**Lesson Details** Use pages 4–9 to complete the graphic organizer.

![Diagram of cells and transport systems]

**Lesson 2** pp. 10–13

**Summary** Two or more bones fit together at a _____________. There, _____________, which are strong bands of tissue, attach bones together. Muscles are attached to bones by _____________. _____________ send and receive messages to all parts of the body.

**Lesson Details** Use page 13 to explain what happens during a reflex action.

__________

__________
Lesson 3  pp. 14-19

Summary  The passing of traits from parents to children is called _______________.

Some traits and the way you grow are influenced by your _______________.

Chemicals called _______________, produced by your endocrine system, also influence growth.

Lesson Details  Look at pages 18–19. Use another sheet of paper to explain why physical activity and proper nutrition are important as you grow.

Lesson 4  pp. 20-24

Summary  The time before birth is called the _______________ stage. During this stage you experienced your first period of rapid growth, called a _______________.

Lesson Details  Use the chart on page 21 to match the phrases to the stage of life. Each stage has two phrases that match.

____ and ____  1. prenatal
                   a. slow, constant growth
                   b. birth until two years
                   c. nine months before birth until birth
                   d. develop the systems needed to support life
                   e. two years until about ten years
                   f. learn to sit up, crawl, walk, and talk

____ and ____  2. infancy

____ and ____  3. childhood

Lesson 5  pp. 26-29

Summary  Solving problems involving real objects that you can see and touch is called _______________. Being able to imagine different solutions to problems is called _______________.

Lesson Details  Use the “Problem Solving Steps” on page 27 to put the list in its proper order.

____ Choose the best solution.

____ Brainstorm many possible solutions.

____ Test the solution. Think about what might happen if you try it.

____ Identify the problem. State it to yourself.
Sequence

Delivery Deluxe!

Blood delivers oxygen, materials from food, and hormones throughout the body. It also carries special cells that fight infections. Blood picks up carbon dioxide and other wastes from the cells and carries them to the lungs, kidneys, or skin, where they can leave the body. Blood is carried in one direction from the heart to the body and back to the heart. The blood is enclosed within blood vessels all the way.

How does blood pick up and deliver materials if it never leaves a blood vessel? It does this right through the vessel walls. Oxygen and other materials can move through the very tiny capillary walls, but blood cells cannot. When you accidentally cut your skin, you bleed because you have cut capillaries.

Blood travels first to the lungs, where it flows into capillaries, picks up oxygen, and leaves carbon dioxide. It then goes back to the heart, which pumps it out in arteries that branch into capillaries in every part of the body. The blood delivers the oxygen and other materials to the cells and picks up carbon dioxide and other wastes. Then it travels into capillaries that widen and join into veins. The veins join into one large vein that takes the blood back to the heart, where the process starts all over again. Blood picks up and delivers necessary materials all along the way.

Fill in the graphic organizer to show the sequence of blood flow through the body.
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Fill in the graphic organizer to show the sequence of blood flow through the body.
Use Word Meanings

A. Underline the word in parentheses that will make the statement correct.
1. The basic unit of structure of all living things is the (organ, cell).
2. Cells that look alike and work together make up a (tissue, system).
3. At the ends of the smallest air tube branches in the lungs are (capillaries, alveoli).
4. As blood passes through the kidneys, (nephrons, neurons) filter wastes from it.
5. Two or more bones fit together at a (joint, ligament).

B. Complete the puzzle.

Clues

Across
1. Passing of traits from parents to children
3. Personal cleanliness
5. Chemical messengers
6. The way you think you look
7. Before birth
8. A kind of thinking based on real things
9. Period of rapid development
10. Bands that attach muscles to bones

Down
2. Everything around you
4. An automatic nerve response
7. The period of change to adolescence