

1 – 1 What is life science?

Key Term

specialization – studying or working on only one part of a subject.

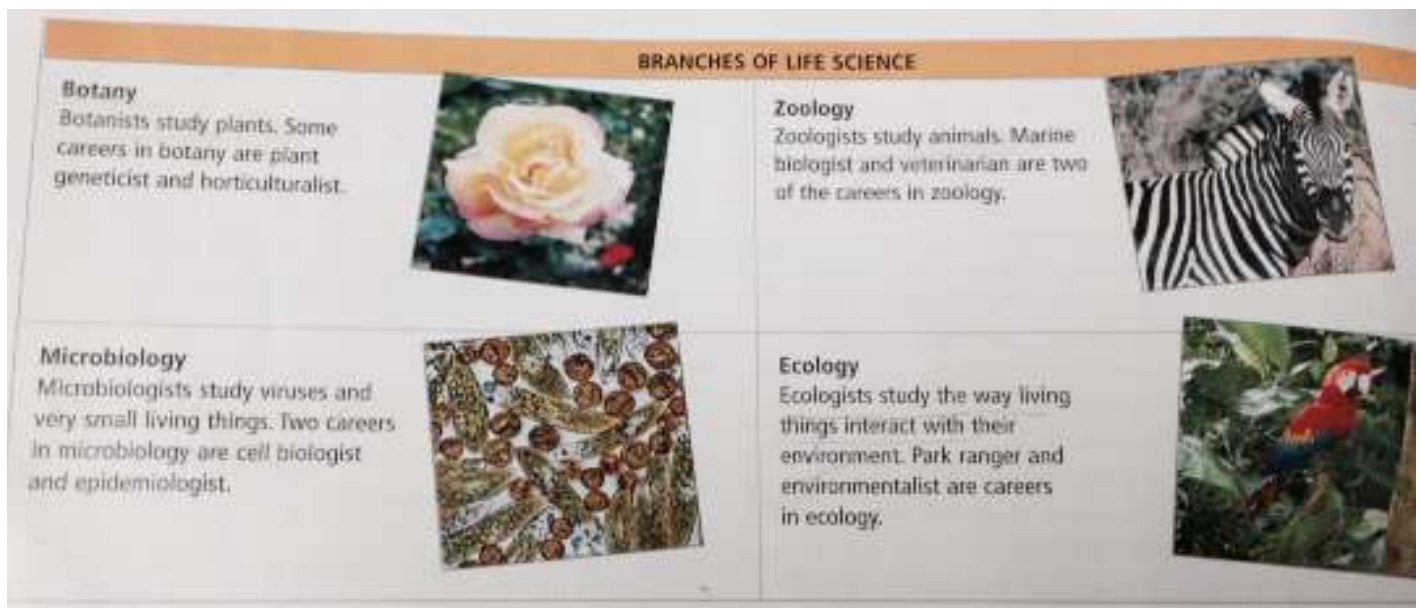
Studying Life Science Science is an organized collection of knowledge about the world. It is a way of finding out why things happen as they do. Scientists try to solve problems by testing possible answers to see if they work. Science knowledge is based on testing and observations.

The scientific study of the areas of science that deals with living things is called life science. Life science is divided into many different branches. One branch is anatomy, or the study of the parts of the body. Another branch is physiology, or the study of the whole body functions. Some of the other branches of life science are described in Figure 1-2.

Specialization As more and more is learned about the world, people can choose specific subjects to study. This is called **specialization**. A person who studies or works in one part of a subject is a specialist. There are many life science specialists. For example, some zoologists study only one group of animals. Some scientists study diseases that affect only animals. Other scientists study diseases in plants.

Importance of Life Science The study of living things affects your life in many ways. The medicine you might use for acne was developed through scientific study. The causes and warning signs of cancer were learned from scientific research. Doctors can perform operations because they know about the parts of the human body and how they work.

Some of the foods you eat were grown by using information about plants. The making of some food also uses knowledge of life science. Many cheeses could not be made without molds. Yogurt could not be made without bacteria. People had to learn about bacteria and molds to use them to make these foods.



1-1 What is life science?

Lesson Review

Complete the following.

1. What is life science? _____

2. What is anatomy? _____
3. What is specialization? _____
4. Give two examples of how life science affects your life. _____

5. Name three branches of life science and describe what is studied in each. _____

Skill Challenge

Skills: *applying definitions, inferring*

Complete the table by finding careers that relate to each branch of life science. You may use a dictionary if necessary.

BRANCHES OF LIFE SCIENCE		
Branch	What Is Studied?	Related Careers
Anatomy (uh-NAT-uh-mee)	parts that make up living things	
Physiology (fiz-ee-AHL-uh-jee)	how the parts of living things work	
Botany (BAHT-uhn-ee)	plants	
Zoology (zoh-AHL-uh-jee)	animals	
Microbiology (my-kroh-by-AHL-uh-jee)	microscopic living things	
Ecology (ee-KAHL-uh-jee)	interaction of living things and their surroundings	

CHECKING CONCEPTS 1-1

1. The knowledge of science is based on _____.
2. Life science is made up of many different _____.
3. Anatomy and _____ are branches of life science.
4. A scientist who studies only one small branch of life science is a
_____.
5. Ecology is the study of the way living things interact with their
_____.