

Intermediate Science 8
Unit 4: Cells, Tissues, Organs and Structures



1. Know the following terms:

Living	Nonliving	Dead
Growth	Movement	Stimulus
Reproduction	Organelles	Cell
Cell Wall	Cell Membrane	Mitochondria
Vacuoles	Chloroplast	Cytoplasm
Nucleus	Mitosis	

Know the following questions:

- Be able to label the different parts of a microscope (p392)**
 - eyepiece
 - objective lenses
 - stage
 - coarse adjustment knob
 - fine adjustment knob
 - light source/lamp
 - iris diaphragm
 - base
 - barrel (or tube)
 - arm
 - revolving nosepiece
- Describe the proper way to carry a microscope.**
- Distinguish between living, non-living things and dead.**
- Describe four characteristics common to living things. Include:**
 - Growth
 - Movement
 - Response to stimuli
 - reproduction
- Examine, explain the role of the following organelles: (Page 405)**
 - cell wall
 - cell membrane
 - chloroplast
 - cytoplasm
 - nucleus
 - vacuole
 - mitochondria
- Label organelles on diagrams of typical plant and animal cells. (Page 405)**
- Distinguish between typical plant and animal cells.**
- List three differences between plant and animal cells. Include:**
 - plant cells have chloroplasts
 - plant cells have cell walls, therefore they have a regular shape
 - plant cells have fewer, and larger, vacuoles
- Know the Cell Theory**
- Understand that growth and reproduction depend on cell division.**
- Explain that mitosis is the process by which cells divide to produce more, identical cells**

12. Describe the levels of organization found in living things. Include:

- (i) cells**
- (ii) tissues**
- (iii) organs**
- (iv) organ systems**
- (v) organisms**

13. Recognize that cells and organisms require the same basic necessities of life. Include:

- (i) oxygen**
- (ii) nutrients**
- (iii) waste removal**

14. Identify the main function of the following organ systems in keeping organisms alive:

- (i) Circulatory**
- (ii) Respiratory**
- (iii) Digestive**
- (iv) Excretory**
- (v) Nervous**
- (vi) Muscular**

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