“Diversity of Living Things Book”

Vocabulary- Chapter One

cell microorganism kingdom binary fission virus bacteria

archaea producer decomposer parasite harmful helpful

host cells attachment injection production assembly release

DNA cell wall cell membrane algea plankton protozoa

plant-like animal-like fungi-like unicellular asexual reproduction

Focus questions

* ***What is life?***
* ***What are the characteristics of microscopic life?***

**Diversity of Living Things**

**Text Reference**: Chapter 1 section 1, 2, 3, and 4 **pages 6-35**

Getting Ready to Learn, page 8

**Scientist Notebook**

**Diversity of Living Things Book**

Activity: Where can you find microscopic life? pages 6 and 7

Activity: How quickly do bacteria multiply? page 7

Activity: Math in Science-Graphing Growth page 15

Activity; How do infections spread? page 25

Activity: What lives in pond water? page 31

**Cells and Heredity Book**

Explore: Organisms p. 9

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| --- |
| ***Big Ideas***   * Any free-living thing is an organism. * All living organisms exhibit common characteristics: they grow, consume nutrients, exchange gases, respond to stimuli, reproduce, need water, and eliminate waste. * Bacteria and protists have the characteristics of living things while viruses are not alive.   “Diversity of Living Things Book”  Vocabulary- Chapter Two  tissue organ sexual reproduction meiosis fertilization  multicellular stimulus response adaptation photosynthesis  autotroph cellular respiration deciduous consumer heterotroph  behavior predator prey migration hibernation  hyphae spore lichen |
|  |

Focus questions

* *How does an organism get energy and material from its environment?*
* *How do multicellular organisms meet their needs?*
* *In what form does a plant store energy?*
* *How do animals respond to their environment?*
* *What are decomposers?*

**Diversity of Living Things Text Reference**:

Chapter 2.0 **pages 40-71**

Getting Ready to Learn, page 42

Text Reference: Chapter 2.1, pages 43-50

Text Reference: Chapter 2.2 pages 51-57

Text Reference: Chapter 2.3 pages 58-64

Text Reference: Chapter 2 .4 pages 66-71

**Scientist Notebook**

Diversity of Living Things

Activity: How can a multicellular organism reproduce on its own? page 41

Activity: What are some advantages of specialization?

Activity: Where does it come from? page 41

Activity: What does an owl eat and how well does it digest its food? page 60

Activity: What does a mushroom cap contain? page 66

Activity: What do yeast cells use for energy?

***Big Ideas***

* Multi-cellular organisms meet their needs in different ways.
* Plants are producers.
* Animals are consumers.
* Most fungi are decomposers.

“Cells and Heredity Book”

Vocabulary for - Chapter One

Cell genetic material multicellular unicellular

Microscope bacteria nonliving organization

cell membrane cytoplasm nucleus eukaryotic cell

prokaryotic cell cell wall organelle vacuole

specialization chloroplast mitochondria tissue

organ organ system

Focus questions

* *What are cells?*
* *How did the invention of the microscope change the study of biology?*
* *What is the structure and function of cells?*

**Cells and Heredity Text Reference**;

Chapter 1.0, pp. 6-8

Getting Ready to Learn

Text Reference; Chapter 1 pages 9-15

Text Reference; Chapter 1.2pages 18-24

Text Reference; Chapter 1.3pages 26-32

**Project- Cell Model**

**Scientist Notebook**

Activity: How do animal and plant cells compare? page 21

Activity: How do roots differ from leaves? page 26

Activity: What are some of the limitations of using a cell model to represent a cell? page 31

Cells and Spacesuits, page 33

Text Reference; Chapter 2.1-2.3page 41-63

Activity: Internet-Photosynthesis, page 39

Elodea and B.T.B. Lab

***Big Ideas***

* The cell is the basic unit of life.
* All living things share common characteristics.
* All living things are made up of cells.
* The microscope is a scientific instrument which allows us to see the inside of a cell.
* Cells have the same needs and perform the same functions as more complex organisms.
* All cells need energy and materials for life processes.

**“Cells and Heredity Book”**

**Vocabulary for - Chapter 2**

chemical reaction carbohydrate chemical energy nucleic acid lipid

glucose photosynthesis cellular respiration fermentation chlorophyll

mitochondria products raw materials carbon dioxide protein

diffusion passive transport osmosis active transport

**Vocabulary for Diversity of Living Things - Chapter 3**

vascular system transpiration seed embryo germination pollen

gymnosperm fertilization sperm cells egg cells angiosperm flower

fruit pollination meiosis reproduction

Focus questions

How do cells capture and release energy?

How are plants alike/ different?

How do plants grow?

What are the parts of a flower?

How do plants reproduce?

How do organisms adapt in order to survive?

**Cells and Heredity Text Reference**;

Chapter 2.1-2.3pages 41-63

**Diversity of Living Things Tex Reference**

Chapter 3.1 pages 82-91

Chapter 3.3 pages 98-103

Chapter 5.1 – 5.4 pages 157 - 187

**Scientist Notebook**

Activity: How can you tell if fermentation releases

***Big Ideas***

Cells have defining structures, such as membranes, cell walls, nuclei, chloroplasts, ribosomes, mitochondria, and cytoplasm.

Materials move across the cells membranes

Focus questions

**Scientist Notebook**

***Big Ideas***