

**CARTERVILLE SCHOOL DISTRICT**  
**BIOLOGY CURRICULUM**  
**HIGH SCHOOL**  
*Revised 2009*

**FIRST QUARTER**

**The Science of Life**

- The World of Biology
- Themes in Biology
- The Study of Biology
- Tools and Techniques

**Chemistry of Life**

- Composition of Matter
- Energy
- Water and Solutions

**Biochemistry**

- Carbon Compounds
- Molecules of Life

**Cell Structure and Function**

- The History of Cell Biology
- Introduction to Cells
- Cell Organelles and Features
- Unique Features of Plant Cells

**SECOND QUARTER**

**Homeostasis and Cell Transport**

- Passive Transport
- Active Transport

## **Photosynthesis**

- The Light Reaction
- The Calvin Cycle

## **Cellular Respiration**

- Glycolysis and Fermentation
- Aerobic Respiration

## **Cell Reproduction**

- Chromosomes
- Cell Division
- Meiosis

## **THIRD QUARTER**

### **Fundamentals of Genetics**

- Mendel's Legacy
- Genetic Crosses

### **DNA, RNA, and Protein Synthesis**

- Discovery of DNA
- DNA Structure
- DNA Replication
- Protein Synthesis

### **Inheritance Patterns and Human Genetics**

- Chromosomes and Inheritance
- Human Genetics

### **History of Life**

- Biogenesis
- Earth's History
- The First Life Forms

## **Theory of Evolution**

- History of Evolutionary Thought
- Evidence of Evolution
- Evolution in Action

## **FOURTH QUARTER**

### **Classification of Organisms**

- Biodiversity
- Modern Classification

### **Introduction to Ecology**

- Introduction to Ecology
- Ecology of Organisms
- Energy Transfer
- Ecosystem Recycling

### **Community Ecology**

- Species Interaction
- Primary and Secondary Succession

### **Ecosystems**

- Terrestrial Biomes
- Aquatic Ecosystems
- Humans and the Environment

### **The Importance of Plants**

- Plants and People
- Plants and the Environment
- Plant Structure and Function
- Plant Reproduction