

Northwestern School Corporation

2010 4<sup>th</sup> Grade Science

Course Outline

I. Life Science

A. Classifying Plants and Animals

1. What are the building blocks of life
2. How are living things grouped
3. How are plants classified
4. How are animals classified
5. How do animals adapt

B. Energy From Plants

1. Plant characteristics
2. Parts of plants
3. Plant reproduction
4. Life cycle of plants

C. Ecosystems

1. Parts of an ecosystem
2. Flow of energy in an ecosystem
3. Flow of matter in an ecosystem

D. Changes in Ecosystems

1. How are ecosystems balanced
2. Organism interaction
3. Changes in environment
4. How do people disturb the balance

## E. Systems of the Human Body

1. Skeletal and Muscular Systems
2. Respiratory and Circulatory Systems
3. Digestive and Nervous Systems
4. Body defense

## II. Earth Science

### A. Water Cycle and Weather

1. Earth's water
2. The affect of water and air on weather
3. Air Masses
4. Measuring and predicting weather

### B. Hurricanes and Tornadoes

1. Hurricanes
2. Tornadoes

### C. Minerals and Rocks

1. Minerals
2. Sedimentary Rocks
3. Igneous Rocks

### D. Changes to Earth's Surface

1. Wearing away of Earth's surface
2. Movement of weathered materials
3. Changes in the Earth's surface

### E. Using Natural Resources

1. Natural resources
2. Energy use of natural resources

### III. Physical Science

#### A. Properties of Matter

1. What is matter
2. Measuring matter
3. Mixing substances
4. Changing matter

#### B. Heat

1. Matter and energy
2. Movement of heat

#### C. Electricity and Magnetism

1. Charging matter
2. Flow of electric charges
3. Magnetic fields
4. Transforming electricity to magnetism
5. Transferring magnetism to electricity

#### D. Sound and Light

1. Sound energy
2. How is sound made
3. Light energy
4. Interaction of light and matter

#### E. Objects in Motion

1. What is motion
2. The affect of force on moving objects
3. Relationship of force, matter, and energy

## F. Simple Machines

1. What is a machine
2. Machines working together

## IV. Space and Technology

### A. Earth's Cycles

1. Earth movement
2. Patterns in the sky

### B. Inner and Outer Planets

1. The Universe
2. Inner Planets
3. Jupiter, Saturn, and Uranus
4. Neptune, Pluto and beyond

### C. Effects of Technology

1. Technology and our lives
2. Technology, communication, and transportation

### D. Computation & Estimation

1. Measurement
2. Purpose