



Middle School (6-8) Scope and Sequence for Science

Grade 6		
Unit One	Unit Two	Unit Three
<p>Topics:</p> <ul style="list-style-type: none"> Chemistry I: Properties of Matter Physics I: Simple Machines <p>Lessons:</p> <ul style="list-style-type: none"> Laboratory Safety Conducting an Experiment States of Matter Properties of Matter Changes in Properties of matter Effects of Force Friction Energy Simple Machines 	<p>Topics:</p> <ul style="list-style-type: none"> Weather and Climate Seasons and Cycles Heating and Cooling Events <p>Lessons:</p> <ul style="list-style-type: none"> The Scientific Method Earth's Atmosphere Climate Clouds Ground/Surface Water Ocean Systems Seasons Impact of the Sun's Energy 	<p>Topics:</p> <ul style="list-style-type: none"> Food Chains and Food Webs Interdependence <p>Lessons:</p> <ul style="list-style-type: none"> Using a Microscope Organisms and their Environment Physiological Needs Ecosystems and Habitats Ecosystem Energy Chain Producers, Consumers and Decomposers Photosynthesis
Grade 7		
Unit One	Unit Two	Unit Three
<p>Topics:</p> <ul style="list-style-type: none"> Interior Structure of the Earth Minerals and Rocks Fossils and Earth's History Plate Tectonics <p>Lessons:</p> <ul style="list-style-type: none"> Land Formation Weathering and Erosion The Rock Cycle Rock Types Soil Composition Plate Motion The Water Cycle Extinction Natural Hazards 	<p>Topics:</p> <ul style="list-style-type: none"> Chemistry II: Chemical Reactions Physics II: Energy <p>Lessons:</p> <ul style="list-style-type: none"> Elements and the Periodic Table Mixtures Structure of Atoms Properties of an Atom Chemical reactions Compounds Heat from Reactions Work and Energy Waves Light Rays 	<p>Topics:</p> <ul style="list-style-type: none"> Dynamic Equilibrium The Parts of Plants, Animals and One-celled Organisms The Human Body <p>Lessons:</p> <ul style="list-style-type: none"> Cells Multicellular Organisms Response to Stimuli Response to Stimuli II Characteristics of Living Things Classification The Human Body Human Body Systems Body Feedback Mechanisms Diet Exercise Health
Grade 8		
Unit One	Unit Two	Unit Three
<p>Topics:</p> <ul style="list-style-type: none"> Sexual and Asexual Reproduction Patterns of Development Heredity Evolution <p>Lessons:</p> <ul style="list-style-type: none"> Reproduction Genetics Heredity Traits I Heredity Traits II Biological Adaptations Biological Diversity 	<p>Topics:</p> <ul style="list-style-type: none"> Newton's Laws Solar System <p>Lessons:</p> <ul style="list-style-type: none"> Speed and Velocity Newton's Laws of Motion Acceleration Gravity Solar System The Moon and Asteroids The Universe 	<p>Topics:</p> <ul style="list-style-type: none"> Human Impact: Environmental Energy Technology <p>Lessons:</p> <ul style="list-style-type: none"> Populations, Resources and the Environment Science in our World Oil Pollution Ecosystems II Renewable, Non-renewable Energy History of Science Innovation Design and Problem Solving Contributors to Science and Technology

NYC/Exploring Science - Curriculum Topic Selector



Sixth Grade

Unit One

- Laboratory Safety
- Conducting an Experiment
- States of Matter
- Properties of Matter**
- * **Changes in Properties of Matter**
- Effects of Force**
- Friction**
- Energy**
- Simple Machines**

Unit Two

- The Scientific Method**
- Earths Atmosphere
- Ground/Surface Water
- Climate
- Clouds**
- Ocean Systems
- Seasons**
- Impact of the Sun's Energy**
- Laboratory Weather Monitoring Station**

Unit Three

- Using a Microscope**
- Organisms and their Environment
- Physiological Needs
- Ecosystems and Habitats
- Ecosystem Energy Chain
- Producers, Consumers and Decomposers
- * **Photosynthesis**

Seventh Grade

Unit One

- Land Formation
- Weathering and Erosion
- The Rock Cycle
- Rock Types**
- Soil Composition**
- Plate Motion
- The Water Cycle**
- Natural Hazards
- Extinction

Unit Two

- Elements and the Periodic Table
- * **Mixtures**
- Structure of Atoms
- * **Properties of an Atom**
- * **Chemical Reactions**
- * **Compounds**
- * **Heat from Reactions**
- Work and Energy**
- Waves**
- Light Rays**

Unit Three

- Cells
- MultiCellular Organisms
- Response to Stimuli I
- Response to Stimuli II**
- Characteristics of Living Things
- Classification
- The Human Body**
- Human Body Systems
- Body Feedback Mechanisms
- Diet
- Exercise**
- Health

Eighth Grade

Unit One

- Reproduction
- Genetics
- Heredity Traits I
- Heredity Traits II
- Biological Adaptations
- Biological Diversity

Unit Two

- Speed and Velocity**
- Newton's Laws of Motion**
- Acceleration**
- Gravity
- Solar System
- The Moon and Asteroids
- The Universe
- Transportation/Space Exploration

Unit Three

- Populations, Resources and the Environment
- Science in our World
- Oil Pollution**
- Renewable, Non-renewable Energy
- Ecosystems II
- History of Science Innovation
- Design and Problem Solving**
- Contributors to Science and Technology

Items in bold include apparatus for hands-on experiments

* *Requires Chemistry Kit*