

## Grades 6-8

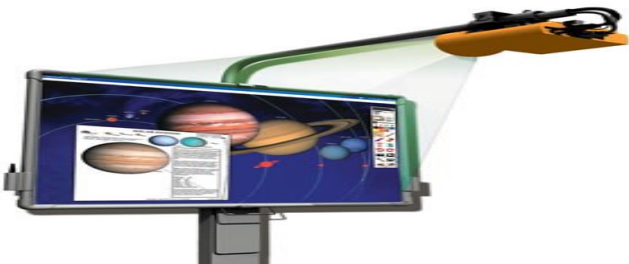
### Next Generation

#### Sunshine State Standards

1. The Practice of Science
2. The Characteristics of Scientific Knowledge
3. The Role of Theories, Laws, Hypotheses & Models
4. Science and Society
5. Earth in Space and Time
6. Earth Structures
7. Earth Systems and Patterns
8. Properties of Matter
9. Changes in Matter
10. Forms of Energy
11. Energy Transfer and Transformations
12. Motion of Objects
13. Forces and Changes in Motion
14. Organization and Development of Living Organisms
15. Diversity and Evolution of Living Organisms
16. Heredity and Reproduction
17. Interdependence
18. Matter and Energy Transformations

#### Science Activities

- In Class Hands on Labs/Activities
- STEM Competition
- Special Guest Speakers
- Field Trips (IMAX)
- Technologically Advanced Classrooms



### Montford Science Department

Christy Hanna

Ruby Gregory

Cheryl Vigue

Heather Huggins

Kelly Emerson

Karissa Davidson

Michael Sprayberry

Alex Swart

Jeffrey Velez

#### 6th, 7th, & 8th Grade Courses

General Science \*Reading Levels \*1 & 2  
Advanced \*3 & 4  
Gifted \*5 & teacher rec.

7/8th Earth/Space-Teacher Recommendation  
Co/Prerequisite of Algebra I  
8th Biology-Teacher Recommendation  
Prerequisite Algebra I

#### Textbooks

Pearson Course 1, 2 & 3 Elevate Science

Discovery Earth/Space Science

Pearson Florida Biology

# Montford Middle School Science Grades 6-8

Welcome to the Curriculum Fair

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The goal of the Montford Middle School Science Department is to promote enthusiasm and a love for science evidenced by the students and modeled by the teachers. The science experience at Montford will optimize traditional learning and hands on activities, media and technology to entice all learners and enhance student understanding.

## Grade 6

### Earth Structures

- Weathering and Erosion
- Florida landform examples

### Earth Systems & Patterns

- Radiation, Conduction and Convection
- Water Cycle
- Weather and Climate
- Natural Disasters in Florida
- The Atmosphere and Flow of Energy

### Motion of Objects/Forces & Changes in Motion

- Motions of Objects
- Relationship of Distance, Time and Motion
- Types of Forces

### Organization of Living Organisms

- Cell Theory
- Organization of Organisms
- Organelles in Plants/ Animals
- Major Systems in the Human Body
- Infectious Agents



## Grade 7

### Earth Structures

- Layers of the Earth
- Rock Cycle
- Plate Tectonics
- Geologic Time

### Forms of Energy

- Electromagnetic Spectrum
- Properties of Light, Sound, & Water Waves



### Energy Transfer & Transformations

- Forms of Energy
- Thermal Energy & Energy Transformations
- Law of Conservation of Energy

### Heredity & Reproduction

- DNA
- Genotype vs. Phenotype
- Punnett Squares
- Meiosis vs. Mitosis
- Biotechnology

### Interdependence

- Ecosystems
- Food/Energy Webs
- Role of Humans on Ecosystems

### Diversity & Evolution of Living Organisms

- Theory of Evolution
- Natural Selection & Diversity of Organisms

## Grade 8

### Science & Societal Issues

- Political Issues that Science can Impact
- Explain how Political, Social, and Economic Concerns can Affect Science

### Space

- Units of Distance in Space
- Size of Space and Objects within it
- Law of Universal Gravitation
- Properties of Stars
- Models of Solar System
- Technology used in Space Exploration

### Matter

- Physical and Chemical Properties/Changes
- Mass vs. Weight, Density
- Elements and Atoms/Periodic Table
- Atomic Theory
- Properties of Compounds, Acids, Bases, and Salts
- Mixtures vs. Pure Substances
- Law of Conservation of Mass

### Life Processes

- Basic needs for Life: Carbon Cycle, Photosynthesis, and Cellular Respiration

## \*\*High School Credit Courses\*\*

### Earth and Space Science

- History, Composition and Dynamics of Earth
- Atmospheric Forces & Oceans
- Space

### Biology

- Ecology, Cells and Genetics
- Bio. Diversity, Bacteria, Viruses, Protists & Fungi
- Plant, Invertebrates, Vertebrates & Human Body

Laboratory investigations which include the use of scientific inquiry, research, measurement, problem solving, laboratory apparatus and technologies, experimental procedures, and safety procedures are an integral part of these courses.