

## PLANNED COURSE STATEMENT

<b>Course Title:</b> 7th Science	<b>Grade Level:</b> 7
<b>Length of Course:</b> 2 Semesters	<b>Credit Area or Type:</b> Core (GPA)

### **Prerequisite:**

**Adopted/Supplemental Materials:** STEM Scopes

### **Course Description:**

Students will learn a variety of integrated science topics. Students will continue to learn and practice Scientific Inquiry. Scopes include: Competition in Ecosystems, Organism Interactions in Ecosystems, Human Dependence on Natural Resources, Structure of Matter, Changes in Energy on the Molecular Level, Heat and Matter Characteristics of Chemical Reactions, Physical and Chemical Properties, Modeling Conservation of Mass, Thermal Energy in Chemical Reactions, Introduction to Photosynthesis, Energy Flow in Organisms, Earth Materials Relationship in Ecosystems, Flow of Energy in Ecosystems, Plate Tectonics, Seafloor Spreading, Organism Interactions in Ecosystems, Competition in Ecosystems, Human Dependence on Natural Resources, Characteristics of Chemical Reactions, Modeling Conservation of Mass Dynamic Nature of Ecosystems, Ecosystem Biodiversity, Geoscience Processes, Weathering and Erosion, Natural Hazard Predictions, and Synthetic Materials

### **Course Goals:**

Students will:

1. Understand Organisms and Nonliving Things are Made of Atoms.
2. Understand that Matter Cycles and Energy Flows through Organisms and Rocks
3. Understand Natural Processes and Human Activities Shape Earth's Resources and Ecosystems.
4. Understand Biodiversity and how to Sustain it as well as the Ecosystem Services in a Changing World
5. Formulate and express scientific questions and hypotheses to be investigated.
6. Design scientific investigations to address and explain questions and hypotheses.
7. Conduct procedures to collect, organize, and display scientific data.
8. Analyze scientific information to develop and present conclusions.

### **Assessment Strategies:**

Formal, informal, and performance assessments including: tests and quizzes (with varied formats as needed, objective and open ended), individual and group projects and reports, inquiry activities including lab and field investigations whenever possible (scored with state scoring guides), daily class activities (e.g. science notebooks), and teacher observation. Performance assessments will allow flexibility in final products (e.g. written report, short skit, demonstration, poster or display, song etc.) It is critical that these assessment opportunities flexibly address the diversity of student abilities and learning styles (see accommodations and modifications below).

### **Accommodations and Modifications:**

In order to meet the needs of all students, accommodations and modifications will be available as needed and appropriate. These may include: opportunity to provide verbal vs. written answers, having a peer or teacher as a reader, allowing extra time for assignments, or shortening assignments as needed, providing highlighted texts, or texts at a different reading level, allowing students to work in a quieter place in the classroom, having a scribe for written work, having spell checkers or calculators available. Needs for students on IEPs would be addressed through consultation with their special ed teacher and would relate to their individual goals for the year. Many assignments and projects will be open-ended, providing opportunities for all students (including TAG students) to perform to their personal best. Students demonstrating prior knowledge of a topic will be able to follow an independent learning contract designed to enrich and extend their learning.



**M1771**  
**M1772**  
**NCES 53237**

**Career Related Learning Standards:**

This course will continually focus on life science as related to daily life and careers. Opportunities will be available for community members working in life science related fields to contribute to class activities. In our study of scientific research and technology we will be relating life science to career goals as well.