



## Course Outcome Summary

### Course Information: **General Science**

**Description:** Science is defined as the system of acquiring knowledge through the use of observation, experimentation, and study of the natural world around us. The process of gaining this knowledge usually begins with asking questions (inquiry) that lead to a search for answers. Along the way, knowledge about structure and function, scientific principles, laws, and theories, and physical and chemical properties of matter is gathered through scientific methods and procedures. Technology plays an ever expanding role in the search for solutions to problems encountered in science. Scientists must also possess good communication skills in order to convey their knowledge to others and to effectively convince others of their findings.

**Instruction Level:** 9-12

**Total Credits:** 1

**Prerequisites:** N/A

**Textbooks:** AGS General Science Text

### Course Standards:

- Determine the central ideas or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms.
- Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem.
- Understand the theory of evolution, natural selection, and biological classification
- Using the science themes\*, understand\* that the origin of the universe is not completely understood, but that there are current ideas in science that attempt to explain its origin
- Describe\* atomic structure and the properties of atoms, molecules, and matter during physical and chemical interactions\*, explain\* changes in materials, living things, earth's features, and stars
- Using the science themes\*, distinguish between internal energies\* (decay of radioactive isotopes, gravity) and external energies (sun) in the earth's systems and show\* how these sources of energy have an impact on those systems

# Unit

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1. Physical Science
2. Earth Science
3. Life Science
4. The Human Body

## Unit Outlines

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### 1. Physical Science

#### Standards:

- Describe\* atomic structure and the properties of atoms, molecules, and matter during physical and chemical interactions
- Using the science themes\* and knowledge of chemical, physical, atomic, and nuclear interactions\*, explain\* changes in materials, living things, earth's features, and stars
- Determine the central ideas or conclusions of a text; summarize complex concepts, processes, or integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem.

#### Essential Question:

- What is Physical Science?

#### Essential Knowledge:

- Apply knowledge of matter, heat, light, sound, electricity and magnetism.

### 2. Earth Science

#### Standards:

- Using the science themes\*, understand\* that the origin of the universe is not completely understood, but that there are current ideas in science that attempt to explain its origin
- Using the science themes\*, distinguish between internal energies\* (decay of radioactive isotopes, gravity) and external energies (sun) in the earth's systems and show\* how these sources of energy have an impact on those systems
- Determine the central ideas or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms.  
Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem.

#### Essential Question:

- What is Earth Science?

**Essential Knowledge:**

- Apply knowledge of the fields of Earth science and the importance of Earth science.

**3. Life Science****Standards:**

- Understand the theory of evolution, natural selection, and biological classification
- Determine the central ideas or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms.
- Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem.

**Essential Question:**

- What is Life Science?

**Essential Knowledge:**

- Apply knowledge of the fields of Life science and the importance of life science.

**4. The Human Body****Standards:**

- Understand the theory of evolution, natural selection, and biological classification
- Determine the central ideas or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms.
- Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem.

**Essential Question:**

- How does the Human Body work, and what are the control systems?

**Essential Knowledge:**

- Apply knowledge of the human body and the importance of understanding how the human body functions.