

Grade 5

Science Standards Correlations

For the

SRP Power In-Service Workshops and Tour

Please note: Science standards correlations are based upon the Arizona Department of Education's Science Standard Crosswalk

www.ade.state.az.us/standards/science/articulated.asp

Strand 1: Inquiry Process

Concept 1: Observations, Questions, and Hypotheses

Formulate predictions, questions, or hypotheses based on observations. Locate appropriate resources.

- PO 1. Formulate a relevant question through observations that can be tested by an investigation. (See M05-S2C1-01)
- PO 2. Formulate predictions in the realm of science based on observed cause and effect relationships.
- PO 3. Locate information (e.g., book, article, website) related to an investigation. (See W05-S3C6-01 and R05-S3C1-05)

Concept 2: Scientific Testing (Investigating and Modeling)

Design and conduct controlled investigations.

- PO 2. Plan a simple investigation that identifies the variables to be controlled.
- PO 3. Conduct simple investigations (e.g., related to forces and motion, Earth processes) based on student-developed questions in life, physical, and Earth and space sciences.
- PO 4. Measure using appropriate tools (e.g., ruler, scale, balance) and units of measure (i.e., metric, U.S. customary). (See M05-S4C4-01)
- PO 5. Record data in an organized and appropriate format (e.g., t-chart, table, list, written log) .(See W05-S3C2-01 and W05-S3C3-01)

Concept 3: Analysis and Conclusions

Analyze and interpret data to explain correlations and results; formulate new questions.

- PO 1. Analyze data obtained in a scientific investigation to identify trends and form conclusions. (See M05-S2C1-03)
- PO 2. Analyze whether the data is consistent with the proposed explanation that motivated the investigation.
- PO 3. Evaluate the reasonableness of the outcome of an investigation.
- PO 4. Develop new investigations and predictions based on questions that arise from the findings of an investigation.
- PO 5. Identify possible relationships between variables in simple investigations (e.g., time and distance; incline and mass of object).

Concept 4: Communication

Communicate results of investigations.

- PO 1. Communicate verbally or in writing the results of an inquiry. (See W05-S3C3-01)
- PO 3. Communicate with other groups or individuals to compare the results of a common investigation.

Strand 2: History and Nature of Science

Concept 2: Nature of Scientific Knowledge

Understand how science is a process for generating knowledge.

- PO 1. Provide examples that support the premise that science is an ongoing process that changes in response to new information and discoveries (e.g., space exploration, medical advances).

Strand 3: Science in Personal and Social Perspectives

Concept 1: Changes in Environments

Describe the interactions between human populations, natural hazards, and the environment.

- PO 1. Explain the impacts of natural hazards on habitats (e.g., global warming, floods, asteroid or large meteor impacts).

Concept 2: Science and Technology in Society

Develop viable solutions to a need or problem.

PO 1. Describe the relationship between science and technology.

PO 2. Explain how scientific knowledge, skills, and technological capabilities are integral to a variety of careers.

Strand 5: Physical Science**Concept 1: Properties and Changes of Properties in Matter**

Understand physical and chemical properties of matter.

PO 1. Identify that matter is made of smaller units called:

- molecules (e.g., H₂O, CO₂)
- atoms (e.g., H, N, Na)