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| **Strand 1: Inquiry Process**  **Concept 1: Observations, Questions, and Hypothesis** | **S1C1PO 1**. Differentiate among a question, hypothesis, and prediction.  **I M** | I will differentiate among a question, hypothesis and a prediction. | Analysis | Prentice Hall Science Explorer:  Inquiry Skills (See skills hand book pages in back of each TG book)  [Assessment Technology, Incorporated: Home of Galileo Technology for Instructional Improvement](http://ati-online.com/)  Select Galileo K-12 Login  Select Curriculum at top of page.  Select schedule Lesson  Choose grade and Science  Select concept level  Bottom of page, select FIND LESSON PLAN.  Resource dialog on Questions, hypotheses and predictions | Scientific question  Differentiate  Hypothesis  Prediction |
| Strand 1: Inquiry Process  Concept 1: Observations, Questions, and Hypothesis | **S1C1PO 2**. Formulate questions based on observations that lead to the development of a hypothesis.  **I M** | I will formulate questions based on observations that lead to development of a hypothesis. | Synthesis | Prentice Hall Science Explorer Inquiry Skills (See skills handbook pages in back of each TG book)  [Assessment Technology, Incorporated: Home of Galileo Technology for Instructional Improvement](http://ati-online.com/)  Select Galileo K-12 Login  Select Curriculum at top of page.  Select schedule Lesson  Choose grade and Science  Select concept level  Bottom of page, select FIND LESSON PLAN.  Formulate testable questions | Observations  Formulate  Hypothesis |
| Strand 1: Inquiry Process  Concept 1: Observations, Questions, and Hypothesis | **S1C1PO 3.** Locate research information, not limited to a single source, for use in the design of a controlled investigation**.**  **I M** | I will locate research information to use in my design of a controlled investigation. | Knowledge | Prentice Hall Science Explorer Inquiry Skills (See skills handbook pages in back of each TG book)  [Assessment Technology, Incorporated: Home of Galileo Technology for Instructional Improvement](http://ati-online.com/)  Select Galileo K-12 Login  Select Curriculum at top of page.  Select schedule Lesson  Choose grade and Science  Select concept level  Bottom of page, select FIND LESSON PLAN.  Conduct research for investigations | Controlled investigation |
| Strand 1: Inquiry Process  **Concept 2: Scientific Testing (Investigating and Modeling)** | **S1C2PO 1**. Demonstrate safe behavior and appropriate procedures (e.g., use and care of technology, materials, organisms) in all science inquiry.  **I** | I will demonstrate safe behavior in all science inquiry activities.  I will demonstrate appropriate procedures in all science inquiry activities. | Knowledge | Prentice Hall Science Explorer Lab Safety Skills (See skills handbook pages in back of each TG text book.)  FOSS Investigation 2, Introduction to microscope  PRENTICE HALL, CELLS AND HEREDITY: Pages 10 – 13)  <http://www.flinnsci.com/Documents/miscPDFs/safety_contract_MS.pdf> | Organisms  Safe behavior  Appropriate procedures  Science inquiry  technology |
| Strand 1: Inquiry Process  Concept 2: Scientific Testing (Investigating and Modeling) | **S1C2PO 2.** Design an investigation to test individual variables using scientific processes.  **I** | I will design an investigation to test individual variables using scientific processes. | Application | Prentice Hall Science Explorer Inquiry Skills (See skills handbook pages in back of each TG book)  [What Are Independent & Dependent Variables in Science for Kids? | eHow.com](http://www.ehow.com/info_8026692_independent-dependent-variables-science-kids.html)  [Assessment Technology, Incorporated: Home of Galileo Technology for Instructional Improvement](http://ati-online.com/)  Select Galileo K-12 Login  Select Curriculum at top of page.  Select schedule Lesson  Choose grade and Science  Select concept level  Bottom of page, select FIND LESSON PLAN.  Plan and conduct a controlled experiment | Variables  Scientific processes  Investigiation |
| Strand 1: Inquiry Process  Concept 2: Scientific Testing (Investigating and Modeling) | **S1C2PO 3.** Conduct a controlled investigation using scientific processes.  **I** | I will conduct a controlled investigation using scientific processes. | Application | Prentice Hall Science Explorer Inquiry Skills (See skills handbook pages in back of each TG book)  [Assessment Technology, Incorporated: Home of Galileo Technology for Instructional Improvement](http://ati-online.com/)  Select Galileo K-12 Login  Select Curriculum at top of page.  Select schedule Lesson  Choose grade and Science  Select concept level  Bottom of page, select FIND LESSON PLAN.  Plan and conduct a controlled experiment | Controlled investigation  Scientific processes |
| Strand 1: Inquiry Process  Concept 2: Scientific Testing (Investigating and Modeling) | **S1C2PO 4.** Perform measurements using appropriate scientific tools (e.g., balances, microscopes, probes, micrometers).  **I** | I will perform measurements using appropriate scientific tools. | Application | FOSS Investigation 2, Introduction to microscope  Prentice Hall Science Explorer:  Math Skills (See skills handbook pages in back of each TG text book)  [Assessment Technology, Incorporated: Home of Galileo Technology for Instructional Improvement](http://ati-online.com/)  Select Galileo K-12 Login  Select Curriculum at top of page.  Select schedule Lesson  Choose grade and Science  Select concept level  Bottom of page, select FIND LESSON PLAN.  Metric system  Performing measurements | Scientific tools  Balances  Probes  Micrometers  Microscopes |
| Strand 1: Inquiry Process  Concept 2: Scientific Testing (Investigating and Modeling) | **S1C2PO 5**. Keep a record of observations, notes, sketches, questions, and ideas using tools such as written and/or computer logs.  **I** | I will keep a record of my observations, notes, sketches, questions and ideas.  I will keep a record of my observations in written or computer log form. | Knowledge | Prentice Hall Science Explorer Inquiry Skills (See skills handbook pages in back of each TG book)  [Assessment Technology, Incorporated: Home of Galileo Technology for Instructional Improvement](http://ati-online.com/)  Select Galileo K-12 Login  Select Curriculum at top of page.  Select schedule Lesson  Choose grade and Science  Select concept level  Bottom of page, select FIND LESSON PLAN.  Recording data  Recording data (6) (2) | Written records  Computer log records  Sketches |
| Strand 1: Inquiry Process  **Concept 3: Analysis and Conclusions** | **S1C3PO 1.** Analyze data obtained in a scientific investigation to identify trends.  **I M** | I will analyze data obtained in my scientific investigations to identify trends and patterns. | Analysis | Prentice Hall Science Explorer Inquiry Skills (See skills handbook pages in back of each TG book)  [Assessment Technology, Incorporated: Home of Galileo Technology for Instructional Improvement](http://ati-online.com/)  Select Galileo K-12 Login  Select Curriculum at top of page.  Select schedule Lesson  Choose grade and Science  Select concept level  Bottom of page, select FIND LESSON PLAN.  Identifying trends  Identifying trends (6) (2) | Trends  Analyze  Data |
| Strand 1: Inquiry Process  Concept 3: Analysis and Conclusions | **S1C3PO 2**. Form a logical argument about a correlation between variables or sequence of events (e.g., construct a cause-and-effect chain that explains a sequence of events).  **I M** | I will form a logical argument about a correlation between variables or sequence ofevents. (e.g. I will construct a cause-and-effect chain that explains a sequence of events) | Evaluation | Prentice Hall Science Explorer Inquiry Skills (See skills handbook pages in back of each TG book) | Logical argument  Correlation  Variables  Cause and effect |
| Strand 1: Inquiry Process  Concept 3: Analysis and Conclusions | **S1C3PO 3.** Evaluate the observations and data reported by others.  **I M** | I will evaluate the observations and data reported by other students. | Evaluation | Prentice Hall Science Explorer Inquiry Skills (See back of each TG text book) | Evaluate  Observations  Data |
| Strand 1: Inquiry Process  Concept 3: Analysis and Conclusions | **S1C3PO 4**. Interpret simple tables and graphs produced by others.  **I** | I will interpret simple tables and graphs produced by other students. | Comprehension | Prentice Hall Science Explorer MATH Skills (See inquiry skills in back of each TG book)  [Assessment Technology, Incorporated: Home of Galileo Technology for Instructional Improvement](http://ati-online.com/)  Select Galileo K-12 Login  Select Curriculum at top of page.  Select schedule Lesson  Choose grade and Science  Select concept level  Bottom of page, select FIND LESSON PLAN.  Identifying trends  Identifying trends (6) (2)  [Graphing Worksheets: Line Graphs, Bar Graphs, Circle / Pie Graphs](http://www.superteacherworksheets.com/graphing.html) | Interpret  Simple tables vs.  Graphs |
| Strand 1: Inquiry Process  Concept 3: Analysis and Conclusions | **S1C3PO 5.** Analyze the results from previous and/or similar investigations to verify the results of the current investigation.  **I** | I will analyze the results from previous and/or similar investigations to verify the results of the current investigations. | Analysis | Prentice Hall Science Explorer  Inquiry Skills (See skills handbook pages in back of each TG book) | Investigations  Analyze  Verify |
| **Strand 2: History and Nature of Science**  **Concept 1: History of Science as a Human Endeavor** | **S2C1PO 1.** *Identify how diverse people and/or cultures, past and present, have made important contributions to scientific innovations (e.g., Jacques Cousteau [inventor, marine explorer], supports Strand 4; William Beebe [scientist], supports Strand 4; Thor Heyerdahl [anthropologist], supports Strand 6).*  **I** | I will identify how diverse people and  Diverse cultures (past and present) have made important contributions to scientific innovations.. | Knowledge | Prentice Hall Science Explorer, WEATHER AND CLIMATE: (Pages 18. 19).  [Assessment Technology, Incorporated: Home of Galileo Technology for Instructional Improvement](http://ati-online.com/)  Select Galileo K-12 Login  Select Curriculum at top of page.  Select schedule Lesson  Choose grade and Science  Select concept level  Bottom of page, select FIND LESSON PLAN.  People add to Science | Diverse  Past cultures  Present cultures  Scientific innovations  Contributions  Marine explorer  Anthropologist | |
| Strand 2: History and Nature of Science  Concept 1: History of Science as a Human Endeavor | **S2C1PO 2**. Describe how a major milestone in science or technology has revolutionized the thinking of the time (e.g.*,* Cell Theory*,* sonar, SCUBA, underwater robotics).  **I** | I will describe how a major milestone in science or technology has revolutionized (completely changed) the thinking of the time. | Knowledge | Prentice Hall Science Explorer, EARTH’S WATERS: Pages 132, 133)  [Assessment Technology, Incorporated: Home of Galileo Technology for Instructional Improvement](http://ati-online.com/)  Select Galileo K-12 Login  Select Curriculum at top of page.  Select schedule Lesson  Choose grade and Science  Select concept level  Bottom of page, select FIND LESSON PLAN.  Milestones in Science | Major Milestone  Revolutionize  “thinking of the time”  Cell Theory  Sonar  SCUBA  Robotics | |
| Strand 2: History and Nature of Science  Concept 1: History of Science as a Human Endeavor | **S2C1PO 3**. Analyze the impact of a major scientific development occurring within the past decade**.**  **I** | I will analyze the impact of a major scientific development occurring within the past decade (ten years). | Analysis | Prentice Hall Science Explorer, EARTH’S WATERS: (Pages 50, 51) | Decade  Analyze  Impact  Malor scientific development | |
| Strand 2: History and Nature of Science  Concept 1: History of Science as a Human Endeavor | **S2C1PO 4.** Describe the use of technology in science-related careers**.**  **I** | I will describe the use of technology in science-related careers. | Knowledge | PRENTICE HALL SCIENCE EXPLORER, EARTH’S WATERS: Pages 132, 133, 112  [Assessment Technology, Incorporated: Home of Galileo Technology for Instructional Improvement](http://ati-online.com/)  Select Galileo K-12 Login  Select Curriculum at top of page.  Select schedule Lesson  Choose grade and Science  Select concept level  Bottom of page, select FIND LESSON PLAN.  Technology in Science related careers | Careers  Science related  technology | |
| Strand 2: History and Nature of Science  **Concept 2: Nature of Scientific Knowledge** | **S2C2PO 1**. Describe how science is an ongoing process that changes in response to new information and discoveries.  **I M** | I will describe how science is an ongoing process that changes in response to new information and discoveries. | Knowledge | Prentice Hall Science Explorer  [The complete film - Why is science important?](http://whyscience.co.uk/the-film) | Ongoing process |
| Strand 2: History and Nature of Science  Concept 2: Nature of Scientific Knowledge | **S2C2PO 3**. Apply the following scientific processes to other problem solving or decision making situations:   * observing * questioning * communicating * comparing * measuring * classifying * predicting * organizing data * inferring * generating hypothesis * identifying variables   **I** | I will apply the following scientific processes to other problem solving or decision making situations:   * observing * questioning * communicating * comparing * measuring * classifying * predicting * organizing data * inferring * generating hypothesis * identifying variables | Application | Prentice Hall Science Explorer Inquiry Skills and Reading Skills (See back of each TG text book) | Scientific processes  Decision making  Problem solving  observing  questioning  communicating  comparing  measuring  classifying  predicting  organizing data  inferring  generating hypothesis |