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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 LoginSelect Curriculum at top of page.Select schedule LessonChoose grade and ScienceSelect concept levelBottom of page, select FIND LESSON PLAN.Resource dialog on Questions, hypotheses and predictions | Scientific questionDifferentiateHypothesisPrediction |
| Strand 1: Inquiry ProcessConcept 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 LoginSelect Curriculum at top of page.Select schedule LessonChoose grade and ScienceSelect concept levelBottom of page, select FIND LESSON PLAN.Formulate testable questions | ObservationsFormulateHypothesis |
| Strand 1: Inquiry ProcessConcept 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 LoginSelect Curriculum at top of page.Select schedule LessonChoose grade and ScienceSelect concept levelBottom 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 microscopePRENTICE HALL, CELLS AND HEREDITY: Pages 10 – 13)<http://www.flinnsci.com/Documents/miscPDFs/safety_contract_MS.pdf> | OrganismsSafe behaviorAppropriate proceduresScience inquirytechnology |
| Strand 1: Inquiry ProcessConcept 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 LoginSelect Curriculum at top of page.Select schedule LessonChoose grade and ScienceSelect concept levelBottom of page, select FIND LESSON PLAN.Plan and conduct a controlled experiment | VariablesScientific processesInvestigiation |
| Strand 1: Inquiry ProcessConcept 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 LessonChoose grade and ScienceSelect concept levelBottom of page, select FIND LESSON PLAN.Plan and conduct a controlled experiment | Controlled investigationScientific processes |
| Strand 1: Inquiry ProcessConcept 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 microscopePrentice 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 LoginSelect Curriculum at top of page.Select schedule LessonChoose grade and ScienceSelect concept levelBottom of page, select FIND LESSON PLAN.Metric systemPerforming measurements | Scientific toolsBalancesProbesMicrometersMicroscopes |
| Strand 1: Inquiry ProcessConcept 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 LoginSelect Curriculum at top of page.Select schedule LessonChoose grade and ScienceSelect concept levelBottom of page, select FIND LESSON PLAN.Recording dataRecording data (6) (2) | Written recordsComputer log recordsSketches |
| 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 LoginSelect Curriculum at top of page.Select schedule LessonChoose grade and ScienceSelect concept levelBottom of page, select FIND LESSON PLAN.Identifying trendsIdentifying trends (6) (2) | TrendsAnalyzeData |
| Strand 1: Inquiry ProcessConcept 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 argumentCorrelation VariablesCause and effect |
| Strand 1: Inquiry ProcessConcept 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) | EvaluateObservationsData |
| Strand 1: Inquiry ProcessConcept 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 LoginSelect Curriculum at top of page.Select schedule LessonChoose grade and ScienceSelect concept levelBottom of page, select FIND LESSON PLAN.Identifying trendsIdentifying trends (6) (2)[Graphing Worksheets: Line Graphs, Bar Graphs, Circle / Pie Graphs](http://www.superteacherworksheets.com/graphing.html) | InterpretSimple tables vs.Graphs |
| Strand 1: Inquiry ProcessConcept 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) | InvestigationsAnalyzeVerify |
| **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 andDiverse 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 LoginSelect Curriculum at top of page.Select schedule LessonChoose grade and ScienceSelect concept levelBottom of page, select FIND LESSON PLAN.People add to Science | DiversePast culturesPresent culturesScientific innovationsContributionsMarine explorerAnthropologist |
| Strand 2: History and Nature of ScienceConcept 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 LoginSelect Curriculum at top of page.Select schedule LessonChoose grade and ScienceSelect concept levelBottom of page, select FIND LESSON PLAN.Milestones in Science | Major MilestoneRevolutionize“thinking of the time”Cell TheorySonarSCUBARobotics |
| Strand 2: History and Nature of ScienceConcept 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) | DecadeAnalyzeImpactMalor scientific development |
| Strand 2: History and Nature of ScienceConcept 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 LoginSelect Curriculum at top of page.Select schedule LessonChoose grade and ScienceSelect concept levelBottom of page, select FIND LESSON PLAN.Technology in Science related careers | CareersScience relatedtechnology |
| 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 ScienceConcept 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 processesDecision makingProblem solvingobservingquestioningcommunicatingcomparingmeasuringclassifyingpredictingorganizing datainferringgenerating hypothesis |