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| --- | --- | --- | --- | --- | --- |
| **Strand 1: Inquiry Process**  **Concept 1: Observations, Questions, and Hypotheses,** | **S1C1PO** **1.** Compare common objects using multiple senses.  **I** | I can compare objects using my senses. | Analysis | <http://www.sedl.org/scimath/pasopartners/senses/overview.html>  SCIENCE A CLOSER LOOK, Macmillan/McGraw-Hill Grade 1, p. 53  [www.macmilanmh.com](http://www.macmilanmh.com)  <http://www.brighthub.com/education/k-12/articles/9387.aspx> | compare |
| Strand 1: Inquiry Process  Concept 1: Observations, Questions, and Hypotheses, | **S1C1PO** **2**. Ask questions based on experiences with objects, organisms, and events in the environment.  **C** | I can ask questions based on experiences with objects, organisms and events. | Comprehension | <http://www.ehow.com/list_6618789_inquiry_based-science-activities.html>  SCIENCE A CLOSER LOOK, Macmillan/McGraw-Hill Grade 1, p. 12 & 334-335.  [www.macmilanmh.com](http://www.macmilanmh.com) | investigation |
| Strand 1: Inquiry Process  Concept 1: Observations, Questions, and Hypotheses, | **S1C1PO** **3.** Predict results of an investigation based on life, physical, and Earth and space sciences (e.g., animal life cycles, physical properties, Earth materials).  **C** | I can predict results based on specific investigation processes. | Evaluation | <http://www.suite101.com/content/problem-solving-and-science-process-skills-a65807>  SCIENCE A CLOSER LOOK, Macmillan/McGraw-Hill Grade 1, p. 12, & p. 8 - 9.  [www.macmilanmh.com](http://www.macmilanmh.com) | predict  results  investigation  processes |
| Strand 1: Inquiry Process  **Concept 2: Scientific Testing (Investigating and Modeling)** | **S1C2PO** **1**. Demonstrate safe behavior and appropriate procedures (e.g., use of instruments, materials, organisms) in all science inquiry.  **I** | I can demonstrate safety procedures when using various scientific  equipment. | Application | <http://www.ehow.com/list_7435047_safety-procedures-science.html>  <http://ims.ode.state.oh.us/ODE/IMS/Lessons/Content/CSC_LP_S05_BB_L01_I03_01.pdf>  SCIENCE A CLOSER LOOK, Macmillan/McGraw-Hill Grade 1, p. 16.  [www.macmilanmh.com](http://www.macmilanmh.com) | procedures  materials |
| Strand 1: Inquiry Process  Concept 2: Scientific Testing (Investigating and Modeling) | **S1C2PO** **2** Participate in guided investigations in life, physical, and Earth and space sciences.  **I** | I can participate in scientific investigations. | Comprehension | <http://school.discoveryeducation.com/sciencefaircentral/Getting-Started/Investigation.html>  SCIENCE A CLOSER LOOK, Macmillan/McGraw-Hill Grade 1, “Be a Scienntist”, p 1 - 15.  [www.macmilanmh.com](http://www.macmilanmh.com) | Life, physical, Earth science |
| Strand 1: Inquiry Process  Concept 2: Scientific Testing (Investigating and Modeling) | **S1C2PO** **3**. Use simple tools such as ruler, thermomters, magnifiers, and balances to collect data (U.S. customary units).  **I** | I can collect data by using various U. S. customary unit tools. | Application | <http://www.teachervision.fen.com/laboratory-equipment/printable/29290.html>  <http://www.studyzone.org/testprep/math4/d/measure4l.cfm> | Data  Customary unit measures |
| Strand 1: Inquiry Process  Concept 2: Scientific Testing (Investigating and Modeling) | **S1C2PO** **4**. Record data from guided investigations in an organized and appropriate format (e.g., lab book, log, notebook, chart paper).  **I** | I can record data  in an organized format. | Application | <http://www.ehow.com/info_7842775_first-grade-math-graphing-lessons.html>  SCIENCE A CLOSER LOOK, Macmillan/McGraw-Hill Grade 1, p. 13 – 15 & p. 4 – 7.  [www.macmilanmh.com](http://www.macmilanmh.com) | record data |
| Strand 1: Inquiry Process  **Concept 3: Analysis and Conclusions** | **S1C3PO** **1**. Organize (e.g., compare, classify, and sequence) objects, organisms, and events according to various characteristics.  **I** | I can organize objects and events. | Application | <http://www.glencoe.com/sec/science/sc_interactions/si1/skill_handbook/oinfo.shtml>  <http://www.ehow.com/list_6142815_science-matter-activities-first-grade.html> | compare, classify, order, sequence organisms characteristics |
| Strand 1: Inquiry Process  Concept 3: Analysis and Conclusions | **S1C3PO** **2**. Compare the results of the investigation to predictions made prior to the investigation.  **I** | I can compare resuts to prior predictions. | Comprehension | <http://www.ehow.com/info_7929813_simple-science-projects-first-grade.html>  SCIENCE A CLOSER LOOK, Macmillan/McGraw-Hill Grade 1, p. 13 - 15.  [www.macmilanmh.com](http://www.macmilanmh.com) | compare  results investigation |
| Strand 1: Inquiry Process  **Concept 4: Communication** | **S1C4PO** **1**. Communicate the results of an investigation using pictures, graphs, models, and/or words.  **I** | I can explain my results using pictures, graphs, models, and/or words. | Synthesis | <http://www.ehow.com/info_7842775_first-grade-math-graphing-lessons.html>  SCIENCE A CLOSER LOOK, Macmillan/McGraw-Hill Grade 1, p. 13 - 15.  [www.macmilanmh.com](http://www.macmilanmh.com) | graphs models |
| Strand 1: Inquiry Process  Concept 4: Communication | **S1C4PO** **2**. Communicate with other groups to describe the results of an investigation.  **I** | I can explain the results of an investigation to a group. | Synthesis | <http://www.ehow.com/info_7842775_first-grade-math-graphing-lessons.html>  SCIENCE A CLOSER LOOK, Macmillan/McGraw-Hill Grade 1, p. 13 - 15. [www.macmilanmh.com](http://www.macmilanmh.com) | investigation |
| **Strand 2: History and Nature of Science**  **Concept 1: History of Science as a Human Endeavor** | **S6C1PO** **1** Give examples of how diverse people (e.g., children, parents, weather reporters, cooks, healthcare workers, gardeners) use science in daily life.  **I** | I can give examples of how different professions use science in daily life. | Application | <http://www.physics.unl.edu/~fulcrum/history/2004/Goodrich/GK12_AY04_RoleModel_Goodrich_Swartzlander_v2.pdf>  SCIENCE A CLOSER LOOK, Macmillan/McGraw-Hill Grade 1, p. 80 and p. 17 - 19. [www.macmilanmh.com](http://www.macmilanmh.com) | science contributions  careers |
| Strand 2: History and Nature of Science  Concept 1: History of Science as a Human Endeavor | **S6C1PO** **2**. Identify how diverse people and/or cultures, past and present, have made important contributions to scientific innovations (e.g., Sally Ride [scientist], supports Stand 6; Neil Armstrong [astronaut, engineer], supports Stand 6).  **I** | I can name people who have made important contributions to scientific innovations in past and present life. | Knowledge | http://www.sciencenetlinks.org/lessons.php?BenchmarkID=10&DocID=236 | Scientific innovations  contributions |
| **Strand 4: Life Science**  **Concept 1: Characteristics of Organisms** | **S4C1PO 1**. Identify the following characteristics of living things:  growth and development   * reproduction * response to stimulus   **C** | I can find out the characteristics of living things in growth and development, reproduction, and its reaction to the environment. | Knowledge | <http://www.tooter4kids.com/Frogs/life_cycle_of_frogs.htm>  SCIENCE A CLOSER LOOK, Macmillan/McGraw-Hill Grade 1, p. 114.  [www.macmilanmh.com](http://www.macmilanmh.com)  http://www.teachers.ash.org.au/jmresources/butlifecycle/index.html | stimulus |
| Strand 4: Life Science  Concept 1: Characteristics of Organisms | **S4C1PO 2**. Compare the following observable features of living things:   * movement- legs, wings * protection – skin, feathers, tree bark * respiration - lungs, gills * support – plant stems, tree trunks   **C** | I can compare ways living things move.  I can compare ways living things breathe.  I can compare ways living things have support. | Comprehension | <http://www.uen.org/Lessonplan/preview.cgi?LPid=621>  <http://www.sciencenetlinks.com/lessons.php?DocID=87>  SCIENCE A CLOSER LOOK, Macmillan/McGraw-Hill Grade 1, p. 28 - 35.  [www.macmilanmh.com](http://www.macmilanmh.com) | movement  protection  respiration  support |
| Strand 4: Life Science  Concept 1: Characteristics of Organisms | **S4C1PO 3**. Identify observable similarities and differences (e.g., number of legs, body coverings, size) between/ among different groups of animals.  **C** | I can recognize the similiarities and differences in plants.  I can recognize the similiarities and differences in animals. | Comprehension | <http://www.nden.k12.wi.us/k8/firfor.htm>  <http://www.sasked.gov.sk.ca/docs/elemsci/gr1uaesc.html>  <http://www.learninghaven.com/science/articles/classification_chart.htm>  SCIENCE A CLOSER LOOK, Macmillan/McGraw-Hill Grade 1, p. 104 – 106 & 110.  [www.macmilanmh.com](http://www.macmilanmh.com) | Identify  Compare  contrast |
| Strand 4: Life Science  **Concept 2: Life Cycles** | **S4C2PO** **1**. Identify stages of human life (e.g., infancy, adolescence, adulthood).  **C** | I can identify the life cycles of plants and animals. | Knowledge | <http://www.valdosta.edu/~vlstout/topic.html>  SCIENCE A CLOSER LOOK, Macmillan/McGraw-Hill Grade 1, p. 108 - 115.  [www.macmilanmh.com](http://www.macmilanmh.com) | life cycles  Infancy  adolescence  adulthood |
| Strand 4: Life Science  Concept 2: Life Cycles | **S4C2PO** **2**. Identify similarities and differences between animals and their parents. (See 1CH-F4)  **C** | I can recognize the similarities and differences between animals and their parents. | Knowledge | <http://www.teachervision.fen.com/animal-biology/printable/32536.html>  SCIENCE A CLOSER LOOK, Macmillan/McGraw-Hill Grade 1, p. 108 - 115.  [www.macmilanmh.com](http://www.macmilanmh.com) | similiarities  differences |
| **Strand 5: Physical Science**  **Concept 1: Properties of Objects and Materials** | **S5C1PO** 1. Classify objects by the following observable properties:   * shape * texture * size * color * weight   **M** | I can classify objects based on shape, texture, size and color. | Comprehension | http://blog.richmond.edu/openwidelookinside/archives/2731 | classify texture properties  observable |
| Strand 5: Physical Science  Concept 1: Properties of Objects and Materials | **S5C1PO 2**. Classify materials as solids or liquids.  **I** | I can classify objects as solids or liquids. | Comprehension | <http://cmapspublic2.ihmc.us/rid=1115229240684_1697656606_421/Sorting%20and%20Classifying%20Lesson%20Plan.doc>  SCIENCE A CLOSER LOOK, Macmillan/McGraw-Hill Grade 1, p. 35.  [www.macmilanmh.com](http://www.macmilanmh.com) | solids  liquids  observable |
| Strand 5: Physical Science  **Cocept 2: Position and Motion of Objects** | **S5C2PO** **1**. Demonstrate the various ways that objects can move (e.g., straight line, zigzag, back-and-forth, round-and-round, fast, slow).  **I** | I can demonstrate ways objects move. | Comprehension | http://www.rockingham.k12.va.us/resources/elementary/1science.htm |  |
| **Strand 6: Earth and Space Science**  **Concept 1: Properties of Earth Materials** | **S6C1PO 1.** Describe the following basic Earth materials.   * rocks * soil * water   **I** | I can describe a basic Earth element. (rock, soil, water) | Comprehension | http://www.associatedcontent.com/article/2718165/first\_grade\_science\_activity\_rock\_and.html?cat=4 |  |
| Strand 6: Earth and Space Science  Concept 1: Properties of Earth Materials | **S6C1PO 2**. Compare the following physical properties of basic Earth materials:   * color * texture * capacity to retain water   **I** | I can compare Earth materials by their physical characteristics. | Comprehension | http://www.mcpasd.k12.wi.us/sunsetweb/classes/Sheffield/firstgrade/special%20events/rocks.html | physical properties  characteristics  retain |
| Strand 6: Earth and Space Science  Concept 1: Properties of Earth Materials | **S6C1PO 3**. Identify common uses (e.g., costruction, decoration) of basic Earth materials (i.e., rocks, water, soil).  **I** | I can recognize common uses of rocks, water and soil in daily living. | Knowledge | <http://crafts.kaboose.com/nature-crafts.html>  http://www.kshs.org/teachers/trunks/pdfs/indian\_homes\_02\_lesson\_natural\_resources.pdf |  |
| Strand 6: Earth and Space Science  Concept 1: Properties of Earth Materials | **S6C1PO 4**. Identify the following as being natural resources:   * air * water * soil * trees * wildlife   **I** | I can identify air, water, soil, trees, and wildlife as natural resources. | Knowledge | http://www.lkwdpl.org/schools/elempath/RRR/ | natural resources |
| Strand 6: Earth and Space Science  **Concept 3: Changes in the Earth and Sky** | **S6C3PO** **1**. Identify the following characteristics of seasonal weather patterns:   * Temperature * Type of precipitation * Wind   **I** | I can identify the characteristic of seasonal weather patterns. (temperature, type of precipitation, wind). | Comprehension | <http://www.msnucleus.org/membership/html/k-6/wc/pdf/wc1we.pdf>  <http://www.rockingham.k12.va.us/resources/elementary/1science.htm>  SCIENCE A CLOSER LOOK, Macmillan/McGraw-Hill Grade 1, p. 278, 236, 240, 249, 255. |  |
| Strand 6: Earth and Space Science  Concept 3: Changes in the Earth and Sky | **S6C3PO** **2.** Analyze how the weather affects daily activities.  **I** | I can explore how the weather affects daily life. | Analysis | http://www.rockingham.k12.va.us/resources/elementary/1science.htm |  |