**Living and NonLiving in Our World – Unit 4**

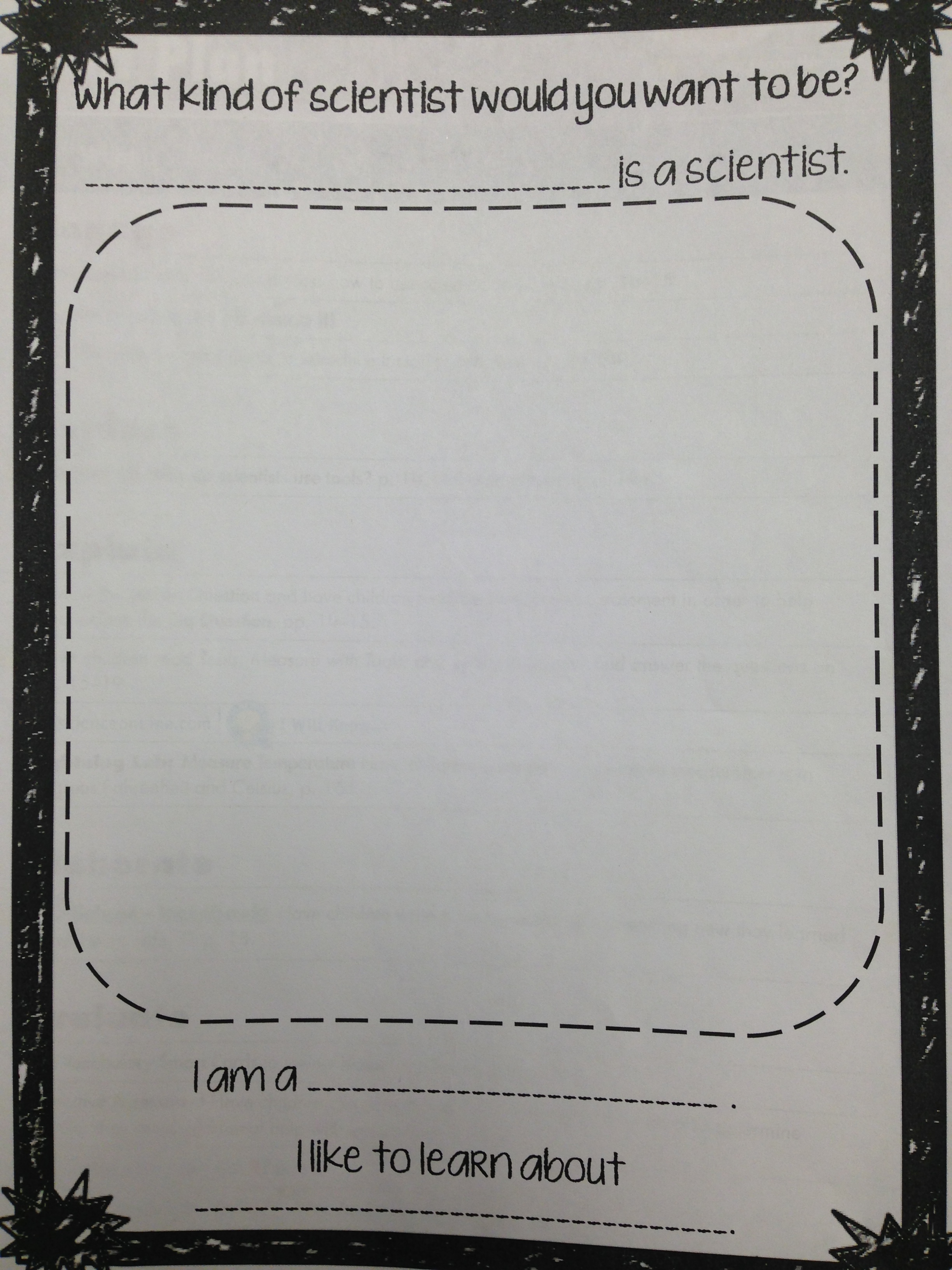
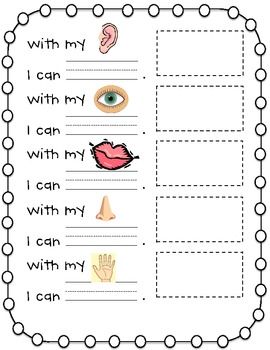
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| **Title of Unit** | Living and Nonliving in Our World | | **Grade Level** | 1st Grade |
| **Subject** | Science and ELA | | **Time Frame** | 2nd Term (2 weeks) |
| **Developed By** | Helen Rodio and Amanda Huenke | | | |
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| **Stage 1 - Identify Desired Results** | | | | |
| **Established Goals: CCSS / CCCS / Big Ideas / Big Themes** | | | | |
| **Concept:** Dependence, Independence, and Interdependence  **Big Ideas:** The world is made up of both living and nonliving things. Humans rely on a variety of living and nonliving things, but we have to take care of living things differently than nonliving things.  **Topics:** Difference between living and nonliving; Extinct vs. nonliving; human relationship with living and nonliving  **Reconceived Standards:**   * Students will identify whether things are living or nonliving. (Analysis) * Students will describe the differences between living and nonliving things. (Comprehension) * Students will create a living and nonliving book. (Creating) * Students will debate whether or not dead and extinct things are living or nonliving. (Evaluating)     **Received Standards:**   * **New Jersey Science Standards:**   + **5.2 Science Practices:** All students will understand that physical science principles, including fundamental ideas about matter, energy, and motion are powerful conceptual tools for making sense of phenomena in physical, living, and Earth systems science.     - **5.2.2.A.a** - Living and nonliving things are made of parts and can be described in terms of the materials of which they are made and their physical properties.     - **5.2.2.A.1** - Sort and describe objects based on the materials of which they are made and their physical properties.   + **5.3 Life Science:**All students will understand that life science principles are powerful conceptual tools for making sense of the complexity, diversity, and interconnectedness of life on Earth. Order in natural systems arises in accordance with rules that govern the physical world, and the order of natural systems can be modeled and predicted through the use of mathematics.     - **5.3.2.A.a** - Living organisms: Exchange nutrients and water with the environment. Reproduce. Grow and develop in a predictable manner.     - **5.3.2.A.1** - [*Cumulative Progress Indicator*] - Group living and nonliving things according to the characteristics that they share. * **Common Core – ELA Standards:**   + [CCSS.ELA-Literacy.RL.1.1](http://www.corestandards.org/ELA-Literacy/RL/1/1/) Ask and answer questions about key details in a text. (Knowledge)   + [CCSS.ELA-Literacy.RL.1.2](http://www.corestandards.org/ELA-Literacy/RL/1/2/) Retell stories, including key details, and demonstrate understanding of their central message or lesson. (Comprehension)   + [CCSS.ELA-Literacy.RL.1.3](http://www.corestandards.org/ELA-Literacy/RL/1/3/) Describe characters, settings, and major events in a story, using key details. (Comprehension)   + [CCSS.ELA-Literacy.RI.1.1](http://www.corestandards.org/ELA-Literacy/RI/1/1/) Ask and answer questions about key details in a text. (Knowledge)   + [CCSS.ELA-Literacy.RI.1.2](http://www.corestandards.org/ELA-Literacy/RI/1/2/) Identify the main topic and retell key details of a text. (Knowledge)   + [CCSS.ELA-Literacy.RI.1.3](http://www.corestandards.org/ELA-Literacy/RI/1/3/) Describe the connection between two individuals, events, ideas, or pieces of information in a text. (Comprehension)   + [CCSS.ELA-Literacy.RI.1.5](http://www.corestandards.org/ELA-Literacy/RI/1/5/) Know and use various text features (e.g., headings, tables of contents, glossaries, electronic menus, icons) to locate key facts or information in a text. (Application)   + [CCSS.ELA-Literacy.RI.1.6](http://www.corestandards.org/ELA-Literacy/RI/1/6/) Distinguish between information provided by pictures or other illustrations and information provided by the words in a text. (Analysis)   + [CCSS.ELA-Literacy.SL.1.4](http://www.corestandards.org/ELA-Literacy/SL/1/4/) Describe people, places, things, and events with relevant details, expressing ideas and feelings clearly. (Knowledge) | | | | |
| **Cross-curricular Integration (Interdisciplinary Teaching and Learning)**  Will you integrate this unit with other curricular areas? If so, what areas? In what ways will you connect the curricular areas? | | | | |
| **Science and Literacy (ELA):**  Literacy strategies and skills will be applied as students acquire information and communicate their learning and understanding in Science. Integration of Literacy and Science is critical for student success. It is essential that literacy strategy and skill instruction be purposefully and appropriately planned and embedded within Science instruction; i.e. planning for the literacy and science outcomes, differentiating, matching instruction to the learners, and in consideration of resources.  This unit will transition from a Science unit that integrates Science and Literacy (ELA) on weather/constancy and change. This unit will transition into a Social Studies unit that integrates Social Studies and Literacy (ELA). The next unit will be on citizenship and our responsibilities in our world. | | | | |
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| **Enduring Understandings**  If a student spends time with you during this unit, what is  absolutely essential that the student understand and  be able to transfer as a result of the experience (Rigor: Quadrant “D”)? | | **Essential Questions**  What provocative questions will foster inquiry, understanding, and transfer of learning (Relevance)?(Often, open-ended questions that stimulate reflective thought and inquiry and connect the knowledge and skills to the enduring understanding are used.) | | |
| *Students will understand that...*   * all things can be classified as either a living or nonliving thing. * different living things have different needs. * humans are living things with needs. * there are distinguishing features to determine if something is living or nonliving. * living and nonliving things interact with each other all the time. * extinct and dead things were once living. | | *Content specific….*  Big Idea:   * What things are living or nonliving? * What are the needs of some living things?   Topical:   * What are the needs of humans? * How can you tell if something is living? * How do living and nonliving things interact? * Can a living thing ever become a nonliving things? | | |
| **Knowledge:**  What knowledge (topics and facts) will student acquire as a result of this unit? This content knowledge may come from the indicators, or might also address pre-requisite knowledge that students will need for this unit. | | **Skills**  What skills will students acquire as a result of this unit? List the skills and/or behaviors that students will be able to exhibit as a result of their work in this unit. These will come from the indicators. | | |
| *Students will know...*   * How to determine if something is living or nonliving. * The needs of most living things. * That extinct and dead things were once living. * Ways that living and nonliving things interact. | | *Students will be able to…*   * Determine if something is living or nonliving. * Name the needs of most living things. * Explain why extinct and dead things are considered living things. * Explain some ways that living and nonliving things interact. | | |

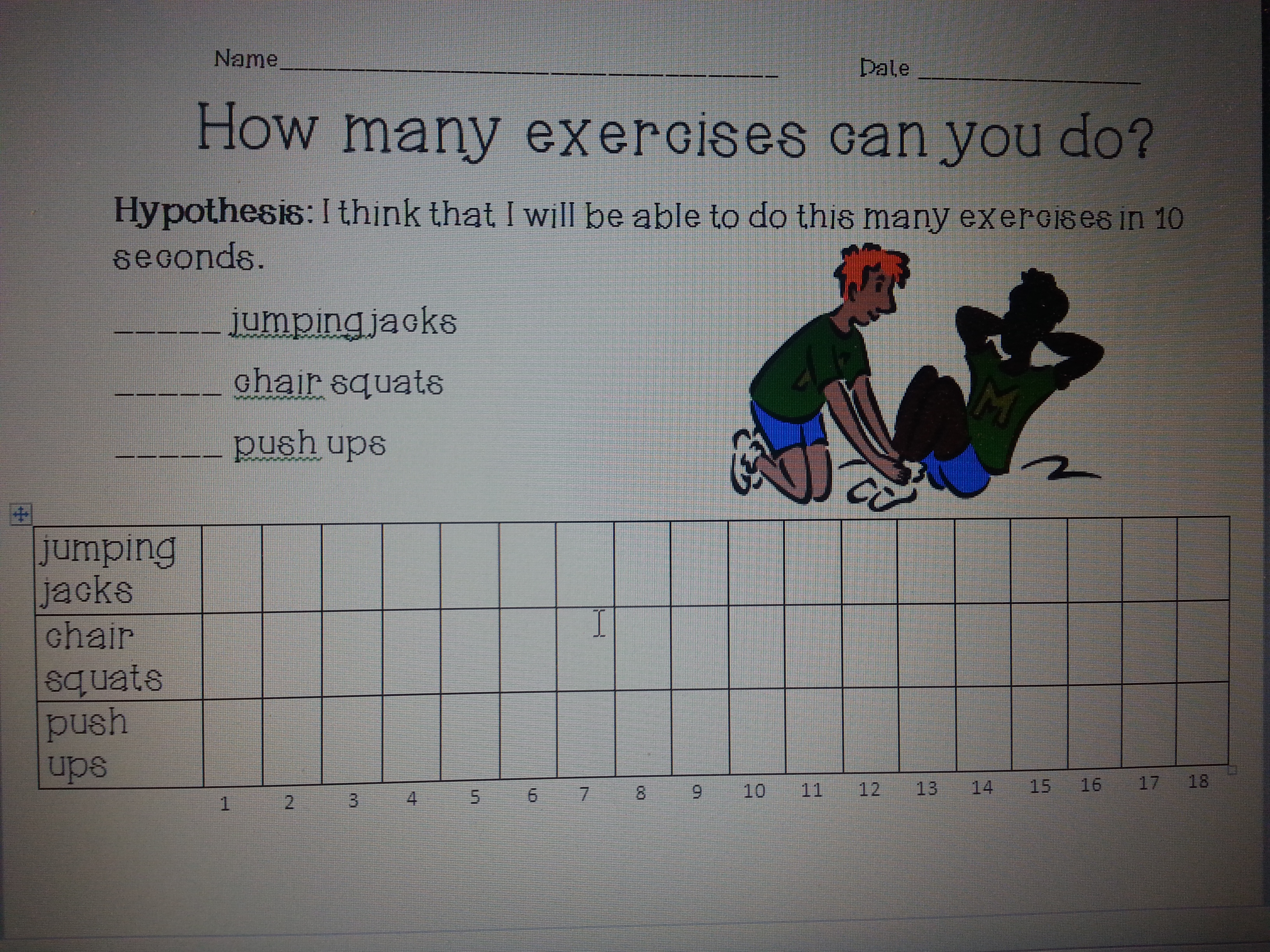
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| **Stage 2 – Assessment Evidence** | | |
| **Performance Task**  Through what authentic performance task will students demonstrate the desired understandings, knowledge, and skills? (Typically, the P.T. describes the learning activity in narrative form. The P.T. usually includes a scenario or situation that requires students to apply knowledge and skills to demonstrate their understanding in an authentic, real life situation {Relevance}. Describe your performance task scenario below)  By what criteria will performances of understanding be judged? | | |
| **GRASPS Elements of the Performance Task** | | |
| ***G*** *– Goal*  *What should students accomplish by completing this task?* | Goals:   * Identify and defend the reasoning of why something is living or nonliving. (Formative) * List the needs of living things. (Formative) * Explain ways that living and nonliving things interact. (Formative) * Identify an extinct plant or animal and teach the class 1 fact about it. (Summative) * Participate in a living and nonliving class book with an appropriate thing. (Summative)   Role:   * Scientists, researchers, observers, questioners, presenters, writers, and readers   Audience:   * Teachers and/or peers   Situation:   * Students will debate and discuss with peers some things that are living and nonliving and why they are in that category. * Students will present their knowledge of an extinct plant or animal by presenting their project to the class. * Students will present their knowledge to the teachers through labs, discussions, and projects.   Products:   * Test, lab reports, class discussion, extinct project, living and nonliving class book | |
| ***R*** *– Role*  *What role (perspective) will your students be taking?* |
| ***A*** *– Audience*  *Who is the relevant audience?* |
| ***S*** *– Situation*  *The context or challenge provided to the student.* |
| ***P*** *– Product, Performance*  *What product/performance will the student*  *create?* |
| ***S*** *– Standards & Criteria for Success*  *Create the rubric for the Performance Task* | Standards:   * Grading key for extinct project * Grading key for test * Rubric for living and nonliving class book | |
| **Performance Evidence**  Through what evidence (work samples, projects, surveys, observations, quizzes, tests, journals or other means) will students demonstrate achievement of the desired results? What formative and summative assessments will be used throughout the unit to arrive at the outcomes. | | **Student Self-Assessment**  In what ways will students reflect upon or self-assess their learning? |
| * Checks for Understanding (Formative) * Discussion (Formative) * Debate (Formative) * Student questions/comments (Formative) * Teacher questions and prompts (Formative) * Observation/Anecdotal records (Formative) * Interview (Formative) * Extinct project and presentation (Summative) * Living and Nonliving class book (Summative) * Test (Summative) | | * Traffic light * Use reflective questions, prompts, and responses * What did I learn? How am I a scientist? |

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| **Stage 3 – Learning Plan**  What teaching and learning experiences (WHERETO) will you use to:   * achieve the desired results identified in Stage 1? * equip students to complete (with understanding) the assessment tasks identified in Stage 2? | | | | |
| **Where are your students headed? Where have they been? How will you make sure the students know where they are going?**  **What experiences do the learners bring to the unit? How have the interests of the learners been ascertained? Have the learners been part of the pre-planning in any way? What individual needs do you anticipate will need to be addressed?**  **Learning environment: Where can this learning best occur? How can the physical environment be arranged to enhance learning?** | | | | |
| |  |  | | --- | --- | | **W**  **H**  **E**  **R**  **E**  **T**  **O** | Where – We will start the unit with students understanding there are living and nonliving things in our world. Then they will learn about some things that are living and nonliving and how to determine the difference. Next, they will learn about the needs of living things. Throughout the unit, students will learn about living and nonliving things. We will use labs, hands on activities, and discussion for each topic to determine student readiness. | | Hook – We will build student interest by allowing students to explore gummy worms and real worms and compare and contrast between the two. | | Equip -   * Class discussion about living and nonliving. * Develop vocabulary – living, nonliving, need, shelter, nutrients, extinct, fossil, grow, air, water * Practice identifying key facts and nonfiction text features in nonfiction texts and how they relate to the main topic * Compare and contrast living and nonliving things * Explain to a partner whether or not extinct and dead things are living or nonliving and how you know * Name some needs of living things | | Rethink – Provide opportunities for students to discuss what they know and think. Ask students lots of questions to help them articulate their ideas. | | Evaluate – Students will consider different living and nonliving things in their world. They should see that they interact with living and nonliving things every day in different ways. | | Tailor – If needed, students will receive extra support in creating their project, writing their class book page, and/or provide them with a graphic organizer. | | Organization –   * Plan science labs and hands on activities * Prepare objects to compare and contrast whether living or nonliving * Plan an end of unit test | | | | | |
| **In what ways will you engage students at the beginning of the unit?** | | | | |
| We will build student interest by exploring with and comparing/contrasting gummy worms and worms. | | | | |
| **What activities / events will help students experience and explore the enduring understandings and essential questions in the unit? How will you equip them with needed skills and knowledge?** | | | | |
| **#** | **Lesson Title** | **Lesson Activities** | **Cross-curricular** | **Resources** |
| 1 | Hook: What is living? | We will build student interest by having students explore, explain, describe, compare, and contrast gummy worms and worms. One is living and one is nonliving. Do you know which is which? How do you know?  Watch “It’s Alive” and “They’re not Alive” Sesame Street videos. | No | Interactive Science textbook by Pearson and online resources  The Gingerbread Man  Living and Nonliving By Carol Lindeen  Do You Know Which Ones Will Grow? By Susan Shay  What’s Alive By Kathleen Zoehfeld  Living or Nonliving  Scholastic News Magazines and website (as appropriate)  Science A-Z materials  Reading A-Z materials  Brainpop Jr. |
| 2 | What are nonliving and living things? | Watch Untamed Science Video #1 and listen to science song.  Read Interactive Science textbook p. 76-79. Use the interactive lesson on the smartboard. Use the living and nonliving sort, got it video, and got it quiz.  Read Do You Know Which Ones Will Grow? and students hold up yes and no cards to answer. Discuss any confusions or misconceptions as we go.  When reading, What’s Alive and Living and Nonliving in shared reading, make references and connections to science, living, nonliving, and needs. | Yes |
| 3 | What do living things need? | Read Interactive Science textbook p. 80-85. Watch Got It video and take Got It quiz on the smartboard as a class to review the content from the textbook.  Watch needs of plants and needs of plants and animals youtube videos. Compare and contrast.  <http://www.youtube.com/watch/?v=dUBIQ1fTRzI>  <http://www.youtube.com/watch/?v=k4UDf3tF_O4>  When reading, What’s Alive and Living and Nonliving in shared reading, make references and connections to science, living, nonliving, and needs. | Yes |
| 4 | What plants and animals no longer live on Earth? | Read Interactive Science textbook p. 98-101. Use lesson clickables, watch Got It video and take Got It quiz on the smartboard as a class to review the content from the textbook.  Watch fossils Brainpop Jr. video. Take the easy quiz as a class and students put fingers up to predict the answer (1=A, 2=B, 3=C, 4=D)  For homework, students will complete an extinct animal/plant research project. They must draw, label, and write one fact about an extinct plant or animal of their choice. This will later be presented to the class. | Yes |
| 5 | Centers | Students will rotate between three centers:   1. Watch the Brainpop Jr. video about extinct and endangered animals. Play the Constructosaurus game when finished to build a dinosaur and see if it can run. 2. Teacher led discussion/debate about whether or not paper is living or nonliving. Give reasons for each. What do you think? Can we think of other tough examples (hamburgers, chicken nuggets, magazine, wood for a fire, wooden table, etc.)- Use probing questions from science a-z to facilitate discussion as needed. 3. Students search around the room for cards with pictures of examples or nonexamples of needs of living things. When they find one, they must draw it on their paper in the appropriate column. |  |
| 6 | Living vs. Nonliving | Divide the class into 3 teams, one in charge of living things, one in charge of nonliving things, and one to be the judges. (groups will rotate after getting a few turns) Challenge the teams to come up with things in their category that start with each letter of the alphabet. The team that comes up with the most items within a given time, wins. The judges must determine if the things belong on that list and WHY.  Students will each write 1 page from a living and nonliving class book. Students will either complete a “A \_\_\_ is a living thing.” Or “A \_\_\_ is a nonliving thing.” page. These will be used as a summative assessment and assembled into a class book for the classroom library. |  |
| 7 | Summative Assessment | Science Chapter Test |  |
| **Special Considerations**:   * Each lesson will begin and end with an essential question * Some instruction will occur during Shared Reading block and some will occur during Science literacy block * Some of the teaching will occur in small groups during centers * Additional resources will be added * Differentiation will occur as needed | | | |  |

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| **Assess and Reflect (Stage 4)** | |
| **Reflections / Considerations (Self-assessment)** | **Comments** |
| **Unit and Areas of Study:**  **Did I maintain alignment and integrity between and among Stage 1, Stage 2, and Stage 3?** |  |
| **Adaptive Dimension:**  **Did I make purposeful adjustments to the curriculum content (not outcomes), instructional practices, and/or the learning environment to meet the learning needs and diversities of all my students?** | For struggling students:  For students who need a challenge: |
| **Instructional Approaches:**  **Did I use a variety of teacher directed and student centered instructional approaches?** |  |
| **Resource-based Learning:**  **Did the students have access to various resources on an ongoing basis?** |  |
| **Content and Perspectives/Gender Equity/Multicultural Education:**  **Have I nurtured and promoted diversity while honoring each child’s identity?** |  |

Adapted from: Wiggins, Grant and J. McTighe. (1998). *Understanding by Design*, Association for Supervision and Curriculum Development.

**[](http://www.teacherspayteachers.com/Product/Exploring-My-5-Senses-Unit-479061)**

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