1st Grade Science **Mrs. Reichert** **Curriculum Mapping**

Unit 1: How Scientist Work	**Time:** *August-September*	
Standards Taught		
• 1-PS4-1 Plan and carry out an investigation to provide evidence that vibrating materials can make sound and that sound can make materials vibrate		
Differentiation/Assessment:	**Classroom Management and Environment:**	**What will the students be doing?**
Students who need extra help will receive guidance from our Title teacher or aides. If appropriate, they will take their tests or complete worksheets in an alternative setting.	*Our classroom is set up with each student having their own desk with whole group discussion. At the end of each unit we will conduct a lab experiment and students will work in small groups.*	• *Reading the lessons* • *Answering comprehension questions* • *Participating in class discussions* • *Science Labs*
Relevance	**Vocabulary**	**Assessments**
Children will understand that scientists use inquiry skills and tools to help them find out information.	- *Senses* - *Science tools* - *Inquiry skills* - *investigation*	• *Workbook comprehension questions* • *Class discussions* • *Observations*
Essential Questions: • *How do you find out about things that are happening in the world around you?* • *How many senses are?* • *What is the difference between a ruler and a tape measure?* • *How can we use our senses?* • *What are inquiry skills?* • *How do we use inquiry skills?* • *Why do scientists plan an investigation?* • *What are two things you can do to make sure that the results of a test are correct?* • *Why is it important to record what you observe in an investigation?* • *What are the steps for scientific investigation?*		

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<table>
<tr><td colspan="2">Unit 2: Technology All Around Us</td><td>Time: September</td></tr>
<tr><td colspan="3">Standards Taught</td></tr>
<tr><td colspan="3">• 1-PS4-3 Plan and carry out an investigation to determine the effect of placing objects made with different materials in the path of a beam of light.</td></tr>
<tr><td>Differentiation/Assessment:</td><td>Classroom Management and Environment:</td><td>What will the students be doing?</td></tr>
<tr><td>Students who need extra help will receive guidance from our Title teacher or aides. If appropriate, they will take their tests or complete worksheets in an alternative setting.</td><td>Our classroom is set up with each student having their own desk with whole group discussion. At the end of each unit we will conduct a lab experiment and students will work in small groups.</td><td>• Reading the lessons
• Answering comprehension questions
• Participating in class discussions
• Science Labs</td></tr>
<tr><td>Relevance</td><td>Vocabulary</td><td>Assessments</td></tr>
<tr><td>Children will understand that engineers use a process to design and build something new and with many different kinds of materials.</td><td>- Engineer
- Design process
- Materials
- Natural
- Human-made</td><td>• Workbook comprehension questions
• Class discussions
• Observations</td></tr>
<tr><td colspan="3">Essential Questions:
• How do engineers work?
• What are the steps of the design process?
• What are some human-made materials?
• What are some natural materials?
• Why is it important to have different materials to use for building?
• How can materials be sorted?</td></tr>
<tr><td colspan="3"></td></tr>
</table>

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<table>
<tr><td colspan="2">Unit 3: Animals</td><td colspan="2">Time: October</td></tr>
<tr><td colspan="4">Standards Taught</td></tr>
<tr><td colspan="4">• 1-LS1-1 Design a solution to a human problem by mimicking how plants and/or animals use their external parts to help them survive, grow, and meet their needs.
• 1-LS1-2 Read texts and use media to determine patterns in behavior of parents and offspring that help offspring survive.</td></tr>
<tr><td>Differentiation/Assessment:</td><td colspan="2">Classroom Management and Environment:</td><td>What will the students be doing?</td></tr>
<tr><td>Students who need extra help will receive guidance from our Title teacher or aides. If appropriate, they will take their tests or complete worksheets in an alternative setting.</td><td colspan="2">Our classroom is set up with each student having their own desk with whole group discussion. At the end of each unit we will conduct a lab experiment and students will work in small groups.</td><td>• Reading the lessons
• Answering comprehension questions
• Participating in class discussions
• Science Labs</td></tr>
<tr><td>Relevance</td><td colspan="2">Vocabulary</td><td>Assessments</td></tr>
<tr><td>Children will understand that all animals have to meet needs in order to live and grow. There are many different kinds of animals and they are grouped by their traits.</td><td>- living
- nonliving
- reproduce
- environment
- gills
- shelter</td><td>- mammal
- bird
- reptile
- amphibian
- fish
- insect</td><td>• Workbook comprehension questions
• Class discussions
• Observations</td></tr>
<tr><td colspan="4">Essential Questions:
• What are living and non-living things?
• In what ways are plants, animals and people alike?
• How do animals grow and change?
• How do plants grow and change?
• What do animals need?
• How are the needs of people like the needs of animals?
• How are animals different?
• How are pets and animals in the wild alike?
• How is the way that fish and land animals get oxygen different?
• How can we group animals?
• What are two unique skin features of reptiles?</td></tr>
<tr><td colspan="4"></td></tr>
</table>

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<table>
<tr><td colspan="2">Unit 4: Plants</td><td colspan="2">Time: November</td></tr>
<tr><td colspan="4">Standards Taught</td></tr>
<tr><td colspan="4">• 1-LS1-1 Design a solution to a human problem by mimicking how plants and/or animals use their external parts to help them survive, grow, and meet their needs.
• 1-LS1-2 Read texts and use media to determine patterns in behavior of parents and offspring that help offspring survive.
• 1-LS3-1 Construct an evidence-based account that young plants and animals are like, but not exactly like, their parents.
• 1-PS4-3 Plan and carry out an investigation to determine the effect of placing objects made with different materials in the path of a beam of light</td></tr>
<tr><td>Differentiation/Assessment:</td><td colspan="2">Classroom Management and Environment:</td><td>What will the students be doing?</td></tr>
<tr><td>Students who need extra help will receive guidance from our Title teacher or aides. If appropriate, they will take their tests or complete worksheets in an alternative setting.</td><td colspan="2">Our classroom is set up with each student having their own desk with whole group discussion. At the end of each unit we will conduct a lab experiment and students will work in small groups.</td><td>• Reading the lessons
• Answering comprehension questions
• Participating in class discussions
• Science Labs</td></tr>
<tr><td>Relevance</td><td colspan="2">Vocabulary</td><td>Assessments</td></tr>
<tr><td>Children will understand that there are many different kinds of plants and they have parts to help them meet their basic needs.</td><td>- Sunlight
- Soil
- Nutrients
- Flower cone
- Root</td><td>- leaf
- flower
- seed
- fruit
- stem</td><td>• Workbook comprehension questions
• Class discussions
• Observations</td></tr>
<tr><td colspan="4">Essential Questions:
• What do plants need to survive?
• What are two ways you can help a plant?
• What are some parts of a plant?
• Why do plants need roots and stems?
• What kind of living thing can make its own food?
• In which two places could you look on a plant to find its seeds?</td></tr>
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<table>
<tr><td colspan="2">Unit 5: Environments</td><td>Time: December</td></tr>
<tr><td colspan="3">Standards Taught</td></tr>
<tr><td colspan="3">• 1-LS1-1: Design a solution to a human problem by mimicking how plants and/or animals use their external parts to help them survive, grow, and meet their needs</td></tr>
<tr><td>Differentiation/Assessment:</td><td>Classroom Management and Environment:</td><td>What will the students be doing?</td></tr>
<tr><td>Students who need extra help will receive guidance from our Title teacher or aides. If appropriate, they will take their tests or complete worksheets in an alternative setting.</td><td>Our classroom is set up with each student having their own desk with whole group discussion. At the end of each unit we will conduct a lab experiment and students will work in small groups.</td><td>• Reading the lessons
• Answering comprehension questions
• Participating in class discussions
• Science Labs</td></tr>
<tr><td>Relevance</td><td>Vocabulary</td><td>Assessments</td></tr>
<tr><td>Children will understand that environments can be found all over Earth and that an environment that meets its needs.</td><td>- Environment
- Shelter
- Food chain</td><td>• Workbook comprehension questions
• Class discussions
• Observations</td></tr>
<tr><td colspan="3">Essential Questions:
• Where do plants and animals live?
• What are five main environments discussed?
• What is a terrarium?</td></tr>
</table>

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<table>
<tr><td colspan="2">Unit 6: Earth's Resources</td><td colspan="2">Time: January</td></tr>
<tr><td colspan="4">Standards Taught</td></tr>
<tr><td colspan="4">• 1-LS1-1 Design a solution to a human problem by mimicking how plants and/or animals use their external parts to help them survive, grow, and meet their needs.</td></tr>
<tr><td>Differentiation/Assessment:</td><td colspan="2">Classroom Management and Environment:</td><td>What will the students be doing?</td></tr>
<tr><td>Students who need extra help will receive guidance from our Title teacher or aides. If appropriate, they will take their tests or complete worksheets in an alternative setting.</td><td colspan="2">Our classroom is set up with each student having their own desk with whole group discussion. At the end of each unit we will conduct a lab experiment and students will work in small groups.</td><td>• Reading the lessons
• Answering comprehension questions
• Participating in class discussions
• Science Labs</td></tr>
<tr><td>Relevance</td><td colspan="2">Vocabulary</td><td>Assessments</td></tr>
<tr><td>Children will understand that there are many kinds of resources on Earth and we can help save Earth's resources.</td><td>- Natural resource
- Rock
- Soil
- Property
- Pollution
- reduce</td><td>- texture
- stream
- river
- lake
- ocean
- reuse
- recycle</td><td>• Workbook comprehension questions
• Class discussions
• Observations</td></tr>
<tr><td colspan="4">Essential Questions:
• What can we find on Earth?
• What are rocks and soil?
• What can we observe about rocks?
• How do soils differ?
• Where can we find water?
• How can we save resources?</td></tr>
</table>

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<table>
<tr><td colspan="2">Unit 7: Weather and Seasons</td><td>Time: February</td></tr>
<tr><td colspan="3">Standards Taught</td></tr>
<tr><td colspan="3">• 1-ESS1-2 Make observations at different times of the year to relate the amount of daylight to the time of year.</td></tr>
<tr><td>Differentiation/Assessment:</td><td>Classroom Management and Environment:</td><td>What will the students be doing?</td></tr>
<tr><td>Students who need extra help will receive guidance from our Title teacher or aides. If appropriate, they will take their tests or complete worksheets in an alternative setting.</td><td>Our classroom is set up with each student having their own desk with whole group discussion. At the end of each unit we will conduct a lab experiment and students will work in small groups.</td><td>• Reading the lessons
• Answering comprehension questions
• Participating in class discussions
• Science Labs</td></tr>
<tr><td>Relevance</td><td>Vocabulary</td><td>Assessments</td></tr>
<tr><td>Children will understand that weather changes from day to day and from season to season and that you can use different tools to measure weather.</td><td>- Wind
- Weather
- Temperature
- Season
- Weather pattern</td><td>• Workbook comprehension questions
• Class discussions
• Observations</td></tr>
<tr><td colspan="3">Essential Questions:
• What is weather?
• What can we observe about weather?
• What are the seasons?</td></tr>
</table>

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<table>
<tr><td colspan="2">Unit 8: Objects in the Sky</td><td colspan="2">Time: March</td></tr>
<tr><td colspan="4">Standards Taught</td></tr>
<tr><td colspan="4">• 1-ESS1-1 Use observations of the sun, moon, and stars to describe patterns that can be predicted.</td></tr>
<tr><td>Differentiation/Assessment:</td><td colspan="2">Classroom Management and Environment:</td><td>What will the students be doing?</td></tr>
<tr><td>Students who need extra help will receive guidance from our Title teacher or aides. If appropriate, they will take their tests or complete worksheets in an alternative setting.</td><td colspan="2">Our classroom is set up with each student having their own desk with whole group discussion. At the end of each unit we will conduct a lab experiment and students will work in small groups.</td><td>• Reading the lessons
• Answering comprehension questions
• Participating in class discussions
• Science Labs</td></tr>
<tr><td>Relevance</td><td colspan="2">Vocabulary</td><td>Assessments</td></tr>
<tr><td>Children will understand that the sun warms land, air and water and that the appearance of objects in the sky changes.</td><td>- Sun
- Star
- Moon
- Magnify
- telescope</td><td>- shadow
- phases</td><td>• Workbook comprehension questions
• Class discussions
• Observations</td></tr>
<tr><td colspan="4">Essential Questions:
• What can we see in the sky?
• How does the sky seem to change?
• How does the sun seem to move?</td></tr>
</table>

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<table>
<tr><td colspan="2">Unit 9: All About Matter</td><td colspan="2">Time: April</td></tr>
<tr><td colspan="4">Standards Taught</td></tr>
<tr><td colspan="4">• 1-PS4-2 Construct an evidence-based account for how objects can be seen only when illuminated.</td></tr>
<tr><td>Differentiation/Assessment:</td><td colspan="2">Classroom Management and Environment:</td><td>What will the students be doing?</td></tr>
<tr><td>Students who need extra help will receive guidance from our Title teacher or aides. If appropriate, they will take their tests or complete worksheets in an alternative setting.</td><td colspan="2">Our classroom is set up with each student having their own desk with whole group discussion. At the end of each unit we will conduct a lab experiment and students will work in small groups.</td><td>• Reading the lessons
• Answering comprehension questions
• Participating in class discussions
• Science Labs</td></tr>
<tr><td>Relevance</td><td colspan="2">Vocabulary</td><td>Assessments</td></tr>
<tr><td>Children will understand that all objects are matter and matter can change in different ways.</td><td>- Matter
- Property
- Texture
- Weight
- Temperature
- dissolve</td><td>- matter
- mass
- solid
- liquid
- gas
- mixture</td><td>• Workbook comprehension questions
• Class discussions
• Observations</td></tr>
<tr><td colspan="4">Essential Questions:
• What can we observe about objects?
• What are solids, liquids and gases?
• How can we measure temperature?
• How can matter change?
• What dissolves in water?</td></tr>
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<table>
<tr><td colspan="2">Unit 10: Forces and Energy</td><td colspan="2">Time: May</td></tr>
<tr><td colspan="4">Standards Taught</td></tr>
<tr><td colspan="4">• 1-PS4-1 Plan and carry out an investigation to provide evidence that vibrating materials can make sound and that sound can make materials vibrate.
• 1-PS4-4 Design and build a device that uses light or sound to solve the problem of communicating over a distance.</td></tr>
<tr><td>Differentiation/Assessment:</td><td colspan="2">Classroom Management and Environment:</td><td>What will the students be doing?</td></tr>
<tr><td>Students who need extra help will receive guidance from our Title teacher or aides. If appropriate, they will take their tests or complete worksheets in an alternative setting.</td><td colspan="2">Our classroom is set up with each student having their own desk with whole group discussion. At the end of each unit we will conduct a lab experiment and students will work in small groups.</td><td>• Reading the lessons
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• Science Labs</td></tr>
<tr><td>Relevance</td><td colspan="2">Vocabulary</td><td>Assessments</td></tr>
<tr><td>Children will understand that forces change the way objects move and sound is energy that you hear.</td><td>- Motion
- Speed
- Push
- Pull
- force</td><td>- sound
- vibrate
- loudness
- pitch</td><td>• Workbook comprehension questions
• Class discussions
• Observations</td></tr>
<tr><td colspan="4">Essential Questions:
• How do objects move?
• How can we change the way objects move?
• How can we change motion?
• What is sound?
• How do we make sound?</td></tr>
</table>