2nd Grade Science **Mrs. Hosman** **Curriculum Mapping**

<table>
<tr><td colspan="2">Unit 1: Work Like a Scientist</td><td>Time: August-September</td></tr>
<tr><td colspan="3">Standards Taught</td></tr>
<tr><td colspan="3">• 2-PS1-1 Plan and carry out an investigation to describe and classify different kinds of materials by their observable properties.</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 scientists use inquiry skills and tools to help them find out information.</td><td>- Thermometer
- Science tools
- Inquiry skills
- Investigation
- Draw Conclusions
- Hypothesis
- Communicate</td><td>• Workbook comprehension questions
• Class discussions
• Observations</td></tr>
<tr><td colspan="3">Essential Questions:
• How do you find out about things that are happening in the world around you?
• How do we use science tools?
• What tools can we use?
• How do we solve problems?
• How do scientists think?
• 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?</td></tr>
</table>

2nd Grade Science **Mrs. Hosman** **Curriculum Mapping**

<table>
<tr><td colspan="2">Unit 2: Technology and Our World</td><td>Time: September</td></tr>
<tr><td colspan="3">Standards Taught</td></tr>
<tr><td colspan="3">• 2-PS1-2 Analyze data obtained from testing different materials to determine which materials have the properties that are best suited for an intended purpose.</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 new technology to meet human needs. Also that technology affects our everyday life.</td><td>- Engineer
- Design process
- Technology
- Environment</td><td>• Workbook comprehension questions
• Class discussions
• Observations</td></tr>
<tr><td colspan="3">Essential Questions:
• What are the steps of the design process?
• How can we use the design process?
• What is technology?
• How can we improve technology?
• How can we make a helmet to protect an egg?</td></tr>
<tr><td colspan="3"></td></tr>
</table>

2nd Grade Science **Mrs. Hosman** **Curriculum Mapping**

<table>
<tr><td colspan="3">Unit 3: All About Animals</td><td colspan="3">Time: October</td></tr>
<tr><td colspan="6">Standards Taught</td></tr>
<tr><td colspan="6">• 2-LS2-2 Develop a simple model that mimics the function of an animal in dispersing seeds or pollinating plants.
• 2-LS4-1 Make observations of plants and animals to compare the diversity of life in different habitats.</td></tr>
<tr><td colspan="2">Differentiation/Assessment:</td><td colspan="2">Classroom Management and Environment:</td><td colspan="2">What will the students be doing?</td></tr>
<tr><td colspan="2">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 colspan="2">• Reading the lessons
• Answering comprehension questions
• Participating in class discussions
• Science Labs</td></tr>
<tr><td colspan="2">Relevance</td><td colspan="2">Vocabulary</td><td colspan="2">Assessments</td></tr>
<tr><td colspan="2">Children will understand that there are many kinds of animals and that animals need certain things to live and grow.</td><td>- Survive
- Lungs
- Gills
- Shelter
- Mammal
- Amphibian
- Metamorphosis
- Pupa</td><td>- Bird
- Reptile
- Fish
- Insect
- Reproduce
- Tadpole
- Life Cycle
- Larva</td><td colspan="2">• Workbook comprehension questions
• Class discussions
• Observations</td></tr>
<tr><td colspan="6">Essential Questions:
• What's my life cycle?
• What are animal needs?
• How do animals grow and change?
• What are some kinds of animals?
• How do we compare animals?
• How do body coverings help animals?
• What are some animal life cycles?
• What are fossils?
• How can we model fossils?</td></tr>
<tr><td colspan="6"></td></tr>
</table>

2nd Grade Science **Mrs. Hosman** **Curriculum Mapping**

<table>
<tr><td colspan="2">Unit 4: All About Plants</td><td colspan="2">Time: November</td></tr>
<tr><td colspan="4">Standards Taught</td></tr>
<tr><td colspan="4">• 2-LS2-1 Plan and carry out an investigation to determine if plants need sunlight and water to grow
• 2-LS2-2 Develop a simple model that mimics the function of an animal in dispersing seeds or pollinating plants.
• 2-LS4-1 Make observations of plants and animals to compare the diversity of life in different habitats</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 plants need certain things to live and grow. Also that all plants have parts that help them grow and change?</td><td>- Basic needs
- Nutrients
- Flower
- Seed</td><td>- Seedling
- Germinate
- Cone
- Pollen</td><td>• Workbook comprehension questions
• Class discussions
• Observations</td></tr>
<tr><td colspan="4">Essential Questions:
• What are plant needs?
• What do plants need to grow?
• What are some parts of a plant?
• What are some plant life cycles?
• How does a bean plant grow?
• How can we bring water to plants?
• Do all plants start as seeds?</td></tr>
<tr><td colspan="4"></td></tr>
</table>

2nd Grade Science **Mrs. Hosman** **Curriculum Mapping**

<table>
<tr><td colspan="2">Unit 5: Environments for Living Things</td><td colspan="2">Time: December</td></tr>
<tr><td colspan="4">Standards Taught</td></tr>
<tr><td colspan="4">• 2-ESS1-1 Use information from several sources to provide evidence that Earth events can occur quickly or slowly.
• 2-LS2-2 Develop a simple model that mimics the function of an animal in dispersing seeds or pollinating plants.
• 2-LS4-1 Make observations of plants and animals to compare the diversity of life in different habitats</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 living things meet their needs in their environment and that environments change over time.</td><td>- Environment
- Pollen
- Food Chain
- Adaptations</td><td>- Resource</td><td>• Workbook comprehension questions
• Class discussions
• Observations</td></tr>
<tr><td colspan="4">Essential Questions:
• How do plants and animals need one another?
• How are living things adapted to their environment?
• Can plants survive in different environments?
• How do environments change over time?
• Can we model a food chain?
• What adaptations help a bird survive?
• How does a flood change the environment?</td></tr>
<tr><td colspan="4"></td></tr>
</table>

2nd Grade Science **Mrs. Hosman** **Curriculum Mapping**

<table>
<tr><td colspan="2">Unit 6: Earth and Its Resources</td><td colspan="2">Time: January</td></tr>
<tr><td colspan="4">Standards Taught</td></tr>
<tr><td colspan="4">• 2-ESS1-1 Use information from several sources to provide evidence that Earth events can occur quickly or slowly.
• 2-ESS2-1 Compare multiple solutions designed to slow or prevent wind or water from changing the shape of the land.
• 2-ESS2-2 Develop a model to represent the shapes and kinds of land and bodies of water in an area. –
• 2-ESS2-3 Obtain information to identify where water is found on Earth and that it can be solid or liquid.</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 changes occur to Earth’s surface. Also that people need Earth resources.</td><td>- Earthquake
- Weathering
- Volcano
- Flood</td><td>- Erosion
- Drought
- Natural Resources
- Product</td><td>• Workbook comprehension questions
• Class discussions
• Observations</td></tr>
<tr><td colspan="4">Essential Questions:
• How does erosion affect the Earth?
• How does an earthquake change Earth’s land?
• What changes Earth?
• What is a geologist?
• What natural resources were used to make your lunch?
• What are natural resources?
• How can we classify plant products?</td></tr>
<tr><td colspan="4"></td></tr>
</table>

2nd Grade Science **Mrs. Hosman** **Curriculum Mapping**

<table>
<tr><td colspan="2">Unit 7: All About Weather</td><td colspan="3">Time: February</td></tr>
<tr><td colspan="5">Standards Taught</td></tr>
<tr><td colspan="5">• 2-ESS2-2 Develop a model to represent the shapes and kinds of land and bodies of water in an area. –
• 2-ESS2-3 Obtain information to identify where water is found on Earth and that it can be solid or liquid.</td></tr>
<tr><td colspan="2">Differentiation/Assessment:</td><td colspan="2">Classroom Management and Environment:</td><td>What will the students be doing?</td></tr>
<tr><td colspan="2">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 colspan="2">Relevance</td><td colspan="2">Vocabulary</td><td>Assessments</td></tr>
<tr><td colspan="2">Children will understand that weather changes from day to day and season to season.</td><td>- Earthquake
- Weathering
- Volcano
- Flood</td><td>- Erosion
- Drought
- Natural Resources
- Product</td><td>• Workbook comprehension questions
• Class discussions
• Observations</td></tr>
<tr><td colspan="5">Essential Questions:
• How does weather change?
• How does the sun heat Earth?
• What are some weather patterns?
• How can we measure precipitation?
• How do seasons affect living things?
• How can we prepare for severe weather?</td></tr>
<tr><td colspan="5"></td></tr>
</table>

2nd Grade Science **Mrs. Hosman** **Curriculum Mapping**

<table>
<tr><td colspan="2">Unit 8: The Solar System</td><td colspan="2">Time: March</td></tr>
<tr><td colspan="4">Standards Taught</td></tr>
<tr><td colspan="4">• 2-ESS2-2 Develop a model to represent the shapes and kinds of land and bodies of water in an area. –
• 2-ESS2-3 Obtain information to identify where water is found on Earth and that it can be solid or liquid.
• 2-ESS1-1 Use information from several sources to provide evidence that Earth events can occur quickly or slowly</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 Earth is a planet in our solar system and changes happen on Earth.</td><td>- Planet
- Solar System
- Constellation</td><td>- Orbit
- Rotate
- Star</td><td>• Workbook comprehension questions
• Class discussions
• Observations</td></tr>
<tr><td colspan="4">Essential Questions:
• What are the planet and stars?
• What causes day and night?
• How can we model day and night?
• Why is the sun the only star you see during the day?
• What do Astronomers study?
• Why do shadows appear to move?</td></tr>
<tr><td colspan="4"></td></tr>
</table>

2nd Grade Science **Mrs. Hosman** **Curriculum Mapping**

<table>
<tr><td colspan="2">Unit 9: Changes in Matter</td><td colspan="2">Time: April</td></tr>
<tr><td colspan="4">Standards Taught</td></tr>
<tr><td colspan="4">• 2-PS1-1 Plan and carry out an investigation to describe and classify different kinds of materials by their observable properties
• 2-PS1-2 Analyze data obtained from testing different materials to determine which materials have the properties that are best suited for an intended purpose.
• 2-PS1-3 Construct an evidence-based account of how an object made of a small set of pieces can be disassembled and made into a new object.
• 2-PS1-4 Construct an argument using reasoning and evidence that some changes caused by heating or cooling can be reversed and some cannot.</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 matter can have different properties. It can be a solid, liquid, or a gas. Also the properties of matter can change.</td><td>- Matter
- Liquid
- Mass
- Volume
- Property
- Gas</td><td>- Solid
- Water Vapor
- Evaporation
- Condensation</td><td>• Workbook comprehension questions
• Class discussions
• Observations</td></tr>
<tr><td colspan="4">Essential Questions:
• What is matter?
• How can we compare volumes?
• How does matter change?
• How can water change states?
• How can we measure the mass of a solid?
• How does the shape of the container affect evaporation?</td></tr>
<tr><td colspan="4"></td></tr>
</table>

2nd Grade Science **Mrs. Hosman** **Curriculum Mapping**

<table>
<tr><td colspan="2">Unit 10: Energy and Magnets</td><td colspan="2">Time: May</td></tr>
<tr><td colspan="4">Standards Taught</td></tr>
<tr><td colspan="4">• 2-PS1-1 Plan and carry out an investigation to describe and classify different kinds of materials by their observable properties
• 2-PS1-2 Analyze data obtained from testing different materials to determine which materials have the properties that are best suited for an intended purpose.
• 2-PS1-3 Construct an evidence-based account of how an object made of a small set of pieces can be disassembled and made into a new object.
• 2-PS1-4 Construct an argument using reasoning and evidence that some changes caused by heating or cooling can be reversed and some cannot.</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 heat, light, and sound are forms of energy. Also that magnets attract some objects and repel others.</td><td>- Energy
- Vibrate
- Sound
- Pitch
- Light
- Loudness</td><td>- Heat
- Magnet
- Repel
- Pole
- Attract</td><td>• Workbook comprehension questions
• Class discussions
• Observations</td></tr>
<tr><td colspan="4">Essential Questions:
• What is energy?
• What are magnets?
• How strong is a magnet?
• How does the amount of light affect how you see color?
• How does heat affect butter?
• What objects does a magnet attract?
• How are magnets used in your classroom?</td></tr>
<tr><td colspan="4"></td></tr>
</table>