## Kindergarten Science Units

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<th>Estimated Time</th>
<th>Core Materials</th>
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| 1    | • Animals and Plants  
      • Five Senses | Life Science | Throughout Year Fall | Harcourt Science |
| 2    | • Earth’s Land, Air and Water  
      • Weather and Seasons | Earth & Space Science | Throughout Year | Harcourt Science |
| 3    | • Objects Around Us  
      • Investigating Water | Physical Science | Throughout Year | Harcourt Science |

**Materials**

Materials adopted by BOE, October 2003  
Harcourt Science Publishers – Kindergarten Program

**Last Revised Date:**  
June 28, 2004
Life Sciences – Unit of Study – Grade K

Unit of Study: Animals

Time: Throughout year

Unit Overview: Animals come in a great diversity of shapes and sizes. They all have body parts that help them get food and move. The body coverings of animals protect them and help them stay warm. All animals grow and change over time.

Content/Concepts Taught:
- What is Living? What is Nonliving?
- What is An Animal?
- What Body Coverings do Animals Have?
- What Do Animals Need?
- How Do Animals Move?
- Where Do Animals Live?
- How Do Animals Grow?

Core Materials: Harcourt Science Curriculum – See unit A

Academic Content Standards used in this unit of study: Earth and Space Sciences, Life Sciences, Physical Sciences, Scientific Inquiry, Scientific Ways of Knowing

Standard: Earth & Space Sciences
Benchmark B: Explain that living things cause changes on Earth.
   Indicator: Processes That Shape Earth
     2. Explore that animals and plants cause changes to their surroundings.

Standard: Life Sciences
Benchmark A: Discover that there are living things, non-living things and pretend things and describe the basic needs of living thing (organisms).
   Indicators: Characteristics and Structure of Life
     1. Explore differences between living and non-living things (e.g., plant-rock).
     2. Discover that stories (e.g., cartoons, movies, comics) sometimes give plants and animals characteristics they really do not have (e.g., talking flower).

Benchmark B: Explain how organisms function and interact with their physical environment.
   Indicators: Diversity and Interdependence of Life
     5. Investigate observable features of plants and animals that help them live in different kinds of places.
     6. Investigate the habitats of many different kinds of local plants and animals and some of the ways in which animals depend on plants and each other in our community.

Benchmark C: Describe similarities and differences that exist among individuals of the same kind of plants and animals.
   Indicators: Heredity
     3. Describe how plants and animals usually resemble their parents.
     4. Investigate variations that exist among individuals of the same kind of plant or animal.
Standard: Physical Sciences
Benchmark A: Discover that many objects are made of parts that have different characteristics. Describe these characteristics and recognize ways an object may change.
   Indicator: Nature of Matter
   3. Describe and sort objects by one or more properties (e.g., size, color and shape).

Standard: Scientific Inquiry
Benchmark A: Ask a Testable Question
   Indicator: Doing Scientific Inquiry
   1. Ask a “what if” question.
Benchmark B: Design and conduct a simple investigation to explore a question.
   Indicator: Doing Scientific Inquiry
   3. Use appropriate safety procedures when completing scientific investigation.
   4. Use the five senses to make observations about the natural world.
   10. Make new observations when people give different descriptions for the same things.
Benchmark C: Gather and communicate information from careful observations and simple investigations through a variety of methods.
   Indicator: Doing Scientific Inquiry
   6. Recognize that numbers can be used to count a collection of things.
   9. Make pictographs and use them to describe observations and draw conclusions.

Standard: Scientific Ways of Knowing
Benchmark A: Recognize that there are different ways to carry out scientific investigations. Realize that investigations can be repeated under the same conditions with similar results and may have different explanations.
   Indicator: Nature of Science
   1. Recognize that scientific investigations involve asking open-ended questions. (How? What if?)
   2. Recognize that more people are more likely to accept your ideas if you can give good reasons for them.
Benchmark B: Recognize the importance of respect for all living things.
   Indicator: Ethical Practices
   3. Interact with living things and the environment in ways that promote respect.
Benchmark C: Recognize that diverse groups of people contribute to our understanding of the natural world.
   Indicator: Science and Society
   4. Demonstrate ways science is practiced by people everyday (children and adults).

Vocabulary For Unit A: Animals

- animals
- insects
- reptiles
- fish
- birds
- mammals
- life cycle
- caterpillar
- pupa
- butterfly
- fly
- hop
- run
- swim
- beak
- jaws
- claws
- teeth
- feathers
- fur
- Scales
- skin

Process Skills included in Unit A: Animals
- Observing
- Communicating
- Classifying
- Inferring
- Predicting
Language Arts Supplemental Materials Available:

**Newbridge Discovery Links Nonfiction Guided Reading Books** (Language Arts Adoption)

- What’s Alive; Who Lives in a Tree; Baby Animals; Ants; Fly Butterfly; How Do Frogs Grow?; Grow, Seed, Grow; Spiders; What Can Fly?; Animals Hide; Everyone Eats; Tails; At the Beach; Who Lives in a Tree?; A Pond; Where’s the Frog?; Patterns, Our Earth

**Language Arts Adoption Book List** *(Many of the books in the collection will address the indicator of stories giving animals characteristics that they really do not have. We just listed few.)*

- Alphabet Book of Cats and Dogs (Moxley)
- Anansi The Spider (McDermott)
- Animals in Winter (Bancroft & Gelder)
- Barnyard Banter (Fleming)
- Blueberries For Sal (McCloskey)
- Book! Book! Book! (Bruss)
- The Cat Goes Fiddle-I-Fee (Galdone)
- Chrysanthemum (Henkes)
- Cookie’s Week (Ward)
- Goldilocks and the Three Bears (Marshall)
- Grouchy Ladybug (Carle)
- I Went Walking (Williams)
- In A Small Small Pond (Fleming)
- In The Tall, Tall Grass (Fleming)
- Somebody and the Three Blairs (Tothurst)
- Stellaluna (Cannon)
- Ten Flashing Fireflies (Sturges)
- The Hat (Brett)
- The Three Little Pigs (Marshall)
- The Three Bears (Galdone)
- The Three Bears (Barton)
- The Very Busy Spider (Carle)
- The Very Hungry Caterpillar (Carle)
- There Was an Old Woman Who Swallowed A Fly (Illus. Adams)
- Time To Sleep (Fleming)
- Waiting For Wings (Ehlert)

**VIDEOS:**

**SONGS:**

- Over in the Meadow, Eensy Weensy Spider, Baby Fish, The Green Grass Grows, Old MacDonald Had A Farm, There Was An Old Lady That Swallowed A Fly.

- **Banana Slugs: Penguin Parade** (To be purchased)
  
  (Animals are Dancing, What Do Animals Need?, Noses, Safe at Home, Croak-A-Ribit, Fishies and others.)

**Assessment Materials:**

1. **Formal Assessment** Harcourt Science Teaching Resources page A  64. Teaching Resources Pages TR 49 – TR 50.
2. Harcourt Teachers Edition Language Arts Link – Habitat (pages A 40). Children choose a favorite animal in its habitat including as many environmental details as possible.
3. **Performance Assessment:**
   - Harcourt Teachers Edition Activity 1 (page A 65). This assessment also includes a scoring rubric.
4. **Informal Assessment** Harcourt Science includes Informal Assessment ideas for each lesson (see pages A11 – A 61)
5. **Science Journals** – Children will continuously write about what they have learned or observed.

**Suggested Possible Field Trips:**

- Innis Woods
- Blendon Woods
- Sharon Woods
- Farms
- Veterinarian
<table>
<thead>
<tr>
<th>Grade Level Indicators</th>
<th>Standard Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ANIMAL UNIT</strong></td>
<td></td>
</tr>
<tr>
<td><strong>1</strong></td>
<td>Explore that animals and plants cause changes to their surroundings.</td>
</tr>
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<td><strong>2</strong></td>
<td>Explore the differences between living and non-living things (e.g., plant-rock)</td>
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<td><strong>3</strong></td>
<td>Discover that stories (e.g., cartoons, movies, comics) sometimes give plants and animals characteristics they really do not have (e.g., talking flowers).</td>
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<td><strong>4</strong></td>
<td>Describe how plants and animals usually resemble their parents.</td>
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<td><strong>5</strong></td>
<td>Investigate variations that exist among individuals of the same kind of plant or animal.</td>
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<td>Investigate observable features of plants and animals that help them live in different kinds of places.</td>
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<td>Investigate the habitats of many different kinds of local plants and animals and some of the ways in which animals depend on plants and each other in our community.</td>
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<td>Describe and sort objects by one or more properties (e.g., size, color, shape).</td>
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<td>Recognize that numbers can be used to count a collection of things.</td>
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<td><strong>13</strong></td>
<td>Make pictographs and use them to describe observations and draw conclusions.</td>
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<td><strong>14</strong></td>
<td>Make new observations when people give different descriptions for the same thing.</td>
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<td><strong>15</strong></td>
<td>Recognize that scientific investigations involve asking open-ended questions. (How? What if?)</td>
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<td><strong>16</strong></td>
<td>Recognize that people are more likely to accept your ideas if you can give good reasons for them.</td>
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<td><strong>17</strong></td>
<td>Interact with living things and the environment in ways that promote respect,</td>
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<td><strong>18</strong></td>
<td>Demonstrate ways science is practiced by people everyday (children and adults).</td>
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Life Sciences - Unit of Study – Grade K

Unit of Study: Plants

Time: Throughout year

Unit Overview: Many different kinds of plants are all around us every day. We can identify plants by their structures including roots, stems, leaves and flowers. Many plants grow from seeds and they change greatly during growth. People use plants for clothing, food and shelter.

Content/Concepts Taught:
• What Are Some Plants?
• What Are the Parts of a Plant?
• How are Leaves the Same and Different?
• What Are A Plant’s Seeds?
• What Do Plants Need to Grow?
• What is the Life Cycle of a Plant?
• How Do Plants and Animals Help People?

Core Materials: Harcourt Science Curriculum– See Unit: B

Academic Content Standards used in this unit of study: Earth and Space Sciences, Life Sciences, Physical Sciences, Science and Technology, Scientific Inquiry

Standard: Earth & Space Sciences
Benchmark B: Explain that living things cause changes on Earth.
Indicators: Processes That Shape Earth
3. Explore that animals and plants cause changes to their surroundings.

Standard: Life Sciences
Benchmark A: Discover that there are living things, non-living things and pretend things and describe the basic needs of living things (organisms).
Indicators: Characteristics and Structure of Life
1. Explore differences between living and non-living things (e.g., plant-rock).
2. Discover that stories (e.g., cartoons, movies, comics) sometimes give plants and animals characteristics they really do not have (e.g., talking flowers).

Benchmark B: Explain how organisms function and interact with their physical environment.
Indicators: Diversity and Interdependence of Life
5. Investigate observable features of plants and animals that help them live in different kinds of places.
6. Investigate the habitats of many different kinds of local plants and animals and some of the ways in which animals depend on plants and each other in our community.

Benchmark C: Describe similarities and differences that exist among individuals of the same kind of plants and animals.
Indicators: Heredity
3. Describe how plants and animals usually resemble their parents.
4. Investigate variations that exist among individuals of the same kind of plant or animal.
Standard: Physical Sciences
Benchmark A: Discover that many objects are made of parts that have different characteristics. Describe these characteristics and recognize ways an object may change.

**Indicators: Nature of Matter**
1. Demonstrate that objects are made of parts (e.g., toys, chairs).
2. Examine and describe objects according to the materials that make up the object (e.g., wood, metal, plastic and cloth).
3. Describe and sort objects by one or more properties (e.g., size, color, shape).

Standard: Scientific and Technology
Benchmark A: Explain why people, when building or making something, need to determine what it will be made of, how it will affect other people and the environment.

**Indicator: Understanding Technology**
1. Explore that objects can be sorted as “natural” or “man-made”.

Benchmark B: Explain that to construct something requires planning, communication, problem solving and tools.

**Indicator: Abilities to Do Technological Design**
3. Explore that each kind of tool has an intended use, which can be helpful or harmful (e.g., scissors can be used to cut paper but they can also hurt you).

Standard: Scientific Inquiry
Benchmark A: Ask a Testable Question

**Indicators: Doing Scientific inquiry**
1. Ask a “what if” question.
2. Explore and pursue student-generated “what if” questions.

Benchmark B: Design and conduct a simple investigation to explore a question.

**Indicators: Doing Scientific inquiry**
3. Use appropriate safety procedures when completing scientific investigation.
4. Use the five senses to make observations about the natural world.
7. Use appropriate tools and simple equipment / instruments to safely gather scientific data (e.g., magnifiers and other appropriate tools).
10. Make new observations when people give different descriptions for the same thing.

Benchmark C: Gather and communicate information from careful observations and simple investigation through a variety of methods.

**Indicators: Doing Scientific inquiry**
5. Draw pictures that correctly portray features of the item being described.
6. Recognize that numbers can be used to count a collection of things.
8. Measure the lengths of objects using non-standard methods of measurement (e.g., teddy bear counters, pennies).
9. Make pictographs and use them to describe observations and draw conclusions.

Standard: Scientific Ways of Knowing
Benchmark A: Recognize that there are different ways to carry out scientific investigations. Realize that investigations can be repeated under the same conditions with similar results and may have different explanations.

**Indicators: Nature of Science**
1. Recognize that scientific investigations involve asking open-ended questions. (How? What if?).
2. Recognize that more people are more likely to accept your ideas if you can give good reasons for them.

Benchmark B: Recognize the importance of respect for all living things.

**Indicator: Ethical Practice**
1. Interact with living things and the environment in ways that promote respect.
Vocabulary For Unit B: Plants

- plants
- trees
- vines
- grasses
- shrubs
- roots
- stem
- leaves
- seed
- sprout
- seedling
- food
- flower
- fruit
- leaf
- oxygen
- clothing

Process Skills included in Unit B: Plants
- Observing
- Classifying
- Collecting data
- Comparing
- Communicating
- Measuring
- Recording

Language Arts Supplemental Materials Available:

- **Newbridge Discovery Links Nonfiction Guided Reading Books** (Language Arts Adoption)
  - In Spring; Fall; Who Lives in A Tree?; What’s Alive?; Animals Hide; Grow, Seed, Grow;

- **Language Arts Units Book Adoption List** *(Many of the books in the collection will address the indicator of stories giving animals characteristics that they really do not have. We just listed a few.)*
  
Eating the Alphabet (Ehlert)    Mole Hill (Ehlert)
Everybody Cooks Rice (Dooley)  Pumpkin, Pumpkin (Titherington)
Everybody Serves Soup (Dooley) Red Leaf, Yellow Leaf (Ehlert)
Fall Leaves, Fall! (Hall)       Ten Apples Up on Top (LeSieg)
From Seed To Plant (Gibbons)   Stone Soup (McGovern)
In A Small, Small Pond (Fleming) Today is Monday (Carle)
In The Tall, Tall Grass (Fleming) Tops and Bottoms (Stevens)
The Little Red Hen (Makes A Pizza) (Sturges) When Autumn Comes (Maas)
Over in The Grasslands (Wilson & Bartlett) Where Once There Was A Wood (Fleming)
Over in the Meadow (Keats)     The Turnip (Ziefert)

**VIDEOS:**

**SONGS:** Over in the Meadow, The Green Grass Grows, ,
There Was An Old Lady That Swallowed A Fly.
- **Banana Slugs: Dirt Made My Lunch** *(Dirt Made My Lunch; Sun, Soil, Water &Air; Roots, Stems, Leaves: I’m A Tree)*

**Assessment Materials:**

1. **Formal Assessment**  Harcourt Science Teaching Resources page B 56.
    Teaching Resource Pages TR 51 – TR 52.
2. **Performance Assessments:**
   - Harcourt Teachers Edition Activity 1 (page B 57). This assessment also includes a scoring rubric.
3. **Informal Assessment**  Harcourt Science includes Informal Assessment ideas for each lesson.
   (Pages B-11- B-53)
4. **Science Journals** – Children will continuously write about what they have learned or observed.

**Suggested Possible Field Trips:**

- Innis Woods
- Blendon Woods
- Sharon Woods
- Farms
- Apple Orchard
- Pumpkin Patch
<table>
<thead>
<tr>
<th>Date Presented</th>
<th>GRADE LEVEL INDICATORS IN PLANT UNIT</th>
<th>Standard Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Explore that animals and plants cause changes to their surroundings.</td>
<td>Earth and Space Sciences</td>
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<tr>
<td>2</td>
<td>Explore differences between living and non-living things (e.g., plant - rock).</td>
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<td>Investigate variations that exist among individuals of the same kind of plant or animal.</td>
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<td>Investigate the habitats of many different kinds of local plants and animals and some of the ways in which animals depend on plants and each other in our community.</td>
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<td>Demonstrate that objects are made of parts (e.g., toys, chairs).</td>
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<td>Examine and describe objects according to the materials that make up the object (e.g., wood, metal, plastic, cloth).</td>
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<td>Describe and sort objects of one or more properties (e.g., size, color, shape)</td>
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<td>Explore that objects can be sorted as “natural” or “man-made”.</td>
<td>Science and Technology</td>
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<td>Explore that each kind of tool has an intended use, which can be helpful or harmful (e.g., scissors can be used to cut paper but they can also hurt you).</td>
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<td>Explore and pursue student-generated “what if” questions</td>
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<td>Draw pictures that correctly portray features of the item being described.</td>
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<td>Use appropriate tools and simple equipment / instruments to safely gather scientific data (e.g., magnifiers and other appropriate tools).</td>
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<td>Measure the lengths of objects using non-standard methods of measurement (i.e., teddy bear counters, pennies).</td>
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<td>Make pictographs and use them to describe observations and draw conclusions.</td>
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<td>Make new observations when people give different descriptions for the same thing.</td>
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<td>23</td>
<td>Recognize that scientific investigations involve asking open-ended questions. (How? What if?)</td>
<td>Scientific Ways of Knowing</td>
</tr>
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<td>24</td>
<td>Recognize that people are more likely to accept your ideas if you can give good reasons for them.</td>
<td>Scientific Ways of Knowing</td>
</tr>
<tr>
<td>25</td>
<td>Interact with living things and the environment in ways that promote respect.</td>
<td>Scientific Ways of Knowing</td>
</tr>
</tbody>
</table>
Life Science - Unit of Study – Grade K

Unit of Study:  Five Senses

Time:  Fall

Unit Overview: Using the five senses can help us to learn about the world. The students will identify the five senses and use them to safely conduct scientific investigations. They also will compare, describe and sort objects using the senses.

Content/Concepts Taught:
- How Does Seeing Help Me Learn?
- How Does Hearing Help Me Learn?
- How Does Tasting Help Me Learn?
- How Does Smelling Help Me Learn?
- How Does Touching Help Me Learn?

Core Materials: Harcourt Science Curriculum– See unit: Getting Ready

Standard:  Scientific Inquiry
Benchmark B: Design and conduct a simple investigation to explore a question.
Indicators: Doing scientific inquiry
  3. Use appropriate safety procedures when completing scientific investigations.
  4. Use the five senses to make observations about the natural world.

Vocabulary for Unit: Getting Ready
see  size  low  sour  rough
color  smell  loud  bitter  smooth
bright  hear  soft  salty  hard
dull  vibration  taste  tongue  soft
shape  high  sweet  touch  texture

Process Skills included in Getting Ready Unit
- Observing
- Comparing
- Communicating
- Classifying
- Order

Language Arts Supplemental Materials:

Language Arts Adoption Book List
Each Peach Pear Plum (Ahlberg)  Ten Black Dots (Crews)
Feely Bugs (Carter)  Hello Red Fox (Carle)
Stinky Bugs (Carter)  Mouse Paint (Walsh)
Color Box (Dodds)

Assessment Materials:
1. Formal Assessment  Have each student make a 5 senses book and cut or draw pictures that show some of the things that we could hear, smell, taste, touch, and see.
2. Informal Assessment  Harcourt Science includes Informal Assessment Ideas for each lesson. (Pages T 27 – T35)
3. Science Journal – Children will continuously write about what they have learned or observed.
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<tr>
<th>Date Presented</th>
<th>GRADE LEVEL INDICATORS</th>
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<tbody>
<tr>
<td></td>
<td>FIVE SENSES UNIT</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Use appropriate safety procedures when completing scientific investigations.</td>
<td>Scientific Inquiry 3</td>
</tr>
<tr>
<td>2</td>
<td>Use the five senses to make observations about the natural world.</td>
<td>Scientific Inquiry 4</td>
</tr>
</tbody>
</table>
Earth Science - Unit of Study – Grade K

Unit of Study:  **Earth’s Land, Air and Water**

Time:  Throughout year

**Unit Overview:**  The environment around us is made up of living things and of nonliving things including land, air and water.  We use many of the things that come from Earth including soil, rocks, and minerals to build things we need to live and move around in.

**Content / Concepts Taught:**
- How Does Earth Look?
- What Makes Up Earth’s Land?
- What Changes Earth’s Land?
- What Can We Observe About Soil?
- How Can We Sort Rocks?
- How Can We Care for Earth’s Resources

**Core Materials:**  Harcourt Science Curriculum – See unit C  *(Do entire unit)*

**Academic Content Standards used in this unit of study:**  Earth and Space Sciences, Life Sciences, Physical Sciences, Science and Technology, Scientific Inquiry, Scientific Ways of Knowing

**Standard: Earth and Space Sciences**

**Benchmark A:**  Observe constant and changing patterns of objects in the day and night sky.

**Indicator: The Universe**

1. Observe that the sun can be seen only in the daytime, but the moon can be seen sometimes at night and sometimes during the day.
   
   Please note that this is not overtly taught in the curriculum and needs to be reinforced with activities by the teacher.

**Benchmark B:**  Explain that living things cause changes on Earth.

**Indicator: Processes That Shape Earth**

2. Explore that animals and plants cause changes to their surroundings.

**Benchmark C:**  Observe, describe and measure changes in the weather, both long term and short term.

**Indicator: Processes That Shape Earth**

3. Explore that sometimes change is too fast to see and sometimes change is too slow to see.

**Standard: Life Sciences**

**Benchmark A:**  Discover that there are living things, non-living things and pretend things, and describe the basic needs of living things (organisms).

**Indicator: Characteristics and Structure of Life**

1. Explore the differences between living and non-living things (e.g., plant-rock).

**Benchmark B:**  Explain how organisms function and interact with their physical environment.

**Indicator: Diversity and Interdependence of Life**

6. Investigate the habitats of many different kinds of local plants and animals and some of the ways in which animals depend on plants and each other in our community.

**Standard: Physical Sciences**

**Benchmark A:**  Discover that many objects are made up of parts that have different characteristics. Describe these characteristics and recognize ways an object may change.

**Indicator: Nature of Matter**

3. Describe and sort objects by one or more properties (e.g., size, color, shape).
Standard: Science and Technology
Benchmark A: Explain why people, when building or making something, need to determine what it will be made of, how it will affect other people and the environment.
  Indicators: Understanding Technology
  1. Explore that objects can be sorted as “natural” or “man-made”.
  2. Explore that some materials can be used over and over again (e.g., plastic or glass containers, cardboard boxes and tubes).
Benchmark B: Explain that to construct something requires planning, communication, problem solving and tools.
  Indicator: Abilities To Do Technological Design
  3. Explore that each kind of tool has an intended use, which can be helpful or harmful (e.g., scissors can be sued to cut paper but they can also hurt you).

Standard: Scientific Inquiry
Benchmark A: Ask a testable question.
  Indicator: Doing Scientific Inquiry
  1. Ask “what if” questions.
Benchmark B: Design and conduct a simple investigation to explore a question.
  Indicators: Doing Scientific Inquiry
  3. Use appropriate safety procedures when completing scientific investigations.
  4. Use the five senses to make observations about the natural world.
  7. Use appropriate tools and simple equipment/instruments to safely gather scientific data (e.g., magnifiers and other appropriate tools).
  10. Make new observations when people give different descriptions for the same thing.

Standard: Scientific Ways of Knowing
Benchmark A: Recognize that there are different ways to carry out scientific investigations. Realize that investigations can be repeated under the same conditions with similar results and may have different explanations.
  Indicators: Nature of Science
  1. Recognize that scientific investigations involve asking open-ended questions (How? What if?).
  2. Recognize that people are more likely to accept your ideas if you can give good reasons for them.
Benchmark B: Recognize the importance of respect for all living things.
  Indicator: Ethical Practices
  3. Interact with living things and the environment in ways that promote respect.
Benchmark C: Recognize that diverse groups of people contribute to our understanding of the natural world.
  Indicator: Ethical Practices
  4. Demonstrate ways science is practiced by people everyday (children and adults).

Vocabulary for Unit C: Earth’s Land, Air, and Water

<table>
<thead>
<tr>
<th>earth</th>
<th>space</th>
<th>planet</th>
<th>ocean</th>
<th>land</th>
</tr>
</thead>
<tbody>
<tr>
<td>mountain</td>
<td>valley</td>
<td>plain</td>
<td>volcano</td>
<td>flood</td>
</tr>
<tr>
<td>drought</td>
<td>soil</td>
<td>rocks</td>
<td>stream</td>
<td>river</td>
</tr>
<tr>
<td>lake</td>
<td>ocean</td>
<td>natural resource</td>
<td>recycle</td>
<td>reuse</td>
</tr>
<tr>
<td>conserve</td>
<td>habitat</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Process Skills included in Unit C: Earth’s Land, Air, and Water
- compare
- observe
- communicate
- classify
Language Arts Supplemental Materials:

Newbridge Discovery Links Nonfiction Guided Reading Books (Language Arts Adoption)
Our Earth, The Wind

Language Arts Adoption Book List
What A Wonderful World – Bryan

Social Studies Supplemental Materials:
Save A Tree For Me (Gentner)
Somewhere in the Universe (Drew)
Water! Water!!! (Cowley)
Where Once There Was A Wood (Fleming)

Videos:

Songs:  Save A Tree For Me,

Assessment Materials:

   Teaching Resources pages TR 53 – TR 54.
2. Performance Assessments:
   • Harcourt Science Teacher Edition Activity 1 (page C 63). This assessment also includes a scoring rubric.
   • Harcourt Science Teacher Edition Activity 2 (page C 63).
3. Informal Assessments  - Harcourt Science Lessons include informal assessment ideas for each lesson (pages C11 – C59).
   1.
4. Science Journal Entries
   • Draw a picture of how water can change the earth, plants can change the earth, weather can change the earth.
   • Children will continuously write about what they have learned or observed.
   • Draw a picture showing one of the earth’s resources and how we can help care for it.
<table>
<thead>
<tr>
<th>Date Presented</th>
<th>GRADE LEVEL INDICATORS Earth’s Land Air and Water UNIT</th>
<th>Standard Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Observe that the Sun can be seen only in the daytime, but the moon can be seen sometimes at night and sometimes during the day.</td>
<td>Earth and Space 1</td>
</tr>
<tr>
<td>2</td>
<td>Explore that animals and plants cause changes to their surroundings.</td>
<td>Earth and Space 2</td>
</tr>
<tr>
<td>3</td>
<td>Explore that sometimes change is too fast to see and sometimes change is too slow to see.</td>
<td>Earth and Space 3</td>
</tr>
<tr>
<td>4</td>
<td>Explore differences between living and non-living things (e.g., plant-rock).</td>
<td>Life Sciences 1</td>
</tr>
<tr>
<td>5</td>
<td>Investigate the habitats of many different kinds of local plants and animals and some of the ways in which animals depend on plants and each other in our community.</td>
<td>Life Sciences 6</td>
</tr>
<tr>
<td>6</td>
<td>Describe and sort objects by one or more properties (e.g., size, color, shape).</td>
<td>Physical Science 3</td>
</tr>
<tr>
<td>7</td>
<td>Explore that objects can be sorted as “natural” or “man-made”.</td>
<td>Science and Technology 1</td>
</tr>
<tr>
<td>8</td>
<td>Explore that some materials can be used over and over again (e.g., plastic or glass containers, cardboard boxes and tubes).</td>
<td>Science and Technology 2</td>
</tr>
<tr>
<td>9</td>
<td>Explore that each kind of tool has an intended use, which can be helpful or harmful (e.g., scissors can be used to cut paper but they can also hurt you).</td>
<td>Science and Technology 3</td>
</tr>
<tr>
<td>10</td>
<td>Ask a “what if” question.</td>
<td>Scientific Inquiry 1</td>
</tr>
<tr>
<td>11</td>
<td>Use appropriate safety procedures when completing scientific investigations.</td>
<td>Scientific Inquiry 3</td>
</tr>
<tr>
<td>12</td>
<td>Use the five senses to make observations about the natural world.</td>
<td>Scientific Inquiry 4</td>
</tr>
<tr>
<td>13</td>
<td>Use appropriate tools and simple equipment/instruments to safely gather scientific data (e.g., magnifiers and other appropriate tools).</td>
<td>Scientific Inquiry 7</td>
</tr>
<tr>
<td>14</td>
<td>Make new observations when people give different descriptions for the same thing.</td>
<td>Scientific Inquiry 10</td>
</tr>
<tr>
<td>15</td>
<td>Recognize that scientific investigations involve asking open-ended questions (How? What if?).</td>
<td>Scientific Ways of Knowing 1</td>
</tr>
<tr>
<td>16</td>
<td>Recognize that people are more likely to accept your ideas if you can give good reasons for them.</td>
<td>Scientific Ways of Knowing 2</td>
</tr>
<tr>
<td>17</td>
<td>Interact with living things and the environment in ways that promote respect.</td>
<td>Scientific Ways of Knowing 3</td>
</tr>
<tr>
<td>18</td>
<td>Demonstrate ways science is practiced by people everyday (children and adults).</td>
<td>Scientific Ways of Knowing 15</td>
</tr>
</tbody>
</table>
Earth Science - Unit of Study – Grade K

Unit of Study: **Weather and Seasons**

**Time:** Throughout year

**Unit Overview:** Weather changes from day to day and over longer periods of time. The seasons are regular patterns of weather change that occur every year.

**Content / Concepts Taught:**
- How Can We Keep Track of Weather?
- What Are the Seasons?
- What is Spring?
- What is Summer?
- What is Fall?
- What is Winter?
- How Can We Predict the Weather?

**Core Materials:** Harcourt Science Curriculum – See unit D (Do entire unit)

**Academic Content Standards used in this unit of study:** Earth and Space Science, Science and Technology, Scientific Inquiry, Scientific Ways of Knowing

**Standard: Earth and Space**

**Benchmark:** C. Observe, describe and measure changes in the weather, both long term and short term.

**Indicator: Processes that Shape the earth**

3. Explore that sometimes change is too fast to see and sometimes change is too slow to see.
4. Observe and describe day-to-day weather changes (e.g., today is hot, yesterday we had rain).

**Standard: Science and Technology**

**Benchmark:** B. Explain that to construct something requires planning, communication, problem solving and tools.

**Indicator: Abilities To Do A Technological Design**

3. Explore that each kind of tool has an intended use, which can be helpful or harmful (e.g., scissors can be used to cut paper but they can also hurt you).

**Standard: Scientific Inquiry**

**Benchmark A.** Ask a testable question.

**Indicators: Doing Scientific Inquiry**

1. Ask “what if” questions.
2. Explore and pursue student-generated “what-if” questions.

**Benchmark B.** Design and conduct a simple investigation to explore a question.

**Indicators: Doing Scientific Inquiry**

3. Use appropriate safety procedures when completing scientific investigations.
4. Use the five senses to make observations about the natural world.
7. Use appropriate tools and simple equipment/instruments to safely gather scientific data (e.g., magnifiers and other appropriate tools).
10. Make new observations when people give different descriptions for the same thing.
Benchmark C. Gather and communicate information from careful observations and simple investigation through a variety of methods.

Indicators: Gather and communicate information from careful observations and simple investigation through a variety of methods.

5. Draw pictures that correctly portray features of the item being described.
6. Recognize that numbers can be used to count a collection of things.
8. Measure the lengths of objects using non-standard methods of measurement (e.g., teddy bear counters and pennies).
9. Make pictographs and use them to describe observations and draw conclusions.

Standard: Scientific Ways of Knowing

Benchmark A. Recognize that there are different ways to carry out scientific investigations. Realize that investigations can be repeated under the same conditions with similar results and may have different explanations.

Indicators: Nature of Science

1. Recognize that scientific investigations involve asking open-ended questions (How? What if?).
2. Recognize that people are more likely to accept your ideas if you can give good reasons for them.

Benchmark B. Recognize the importance of respect for all living things.

Indicator: Ethical Practices

3. Interact with living things and the environment in ways that promote respect.

Benchmark C. Recognize that diverse groups of people contribute to our understanding of the natural world.

Indicator: Ethical Practices

4. Demonstrate ways science is practiced by people everyday (children and adults).

Vocabulary for Unit D: Weather and Seasons

- rainy
- snowy
- windy
- cloudy
- sunny
- rain gauge
- thermometer
- wind gauge
- seasons
- spring
- summer
- fall
- winter
- predict

Process Skills included in Unit D: Weather and Seasons

- Observe
- Collecting Data
- Measuring
- Recording
- Interpreting Data
- Comparing
- Communicating
- Predicting

Core Materials: Harcourt Science Curriculum – See unit D (Do entire unit)

Language Arts Supplemental Materials:

Newbridge Discovery Links Nonfiction Guided Reading Books (Language Arts Adoption)

- In Spring; Fall; In Summer; Winter; Snow; The Sun

Language Arts Units Book List

- Animals in Winter (Bancroft & Van Gelder)
- Fall Leaves Fall! (Hall)
- The Jacket I Wear in the Snow (Neitzel)
- Rain (Kalan)
- Snow Balls (Ehlert)
- Snow is Falling (Branley)
- Snowy Day (Keats)
- Time to Sleep (Fleming)
- When Autumn Comes (Maas)
Social Studies Supplemental Materials:
   Thunder and Lightning (Illustrated John)
   Whiteout (Becvar)

Videos:

Songs:

Assessment Materials:
      Teaching Resources pages TR 55 – TR 56.
   2. Performance Assessments:
      • Harcourt Teachers Edition– Activity 1. (D 55 - includes rubric)
   3. Informal Assessments - Harcourt Science Lessons include informal assessment ideas for each lesson
      (see pages D 11 – D 51
   4. Science Journal Entries
      • Through the year, draw a picture of your favorite thing to do for each season.
      • Children will continuously write about what they have learned or observed.
<table>
<thead>
<tr>
<th>Date Presented</th>
<th>GRADE LEVEL INDICATORS</th>
<th>Standard Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Weather and Seasons</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Observe and describe day-to-day weather changes (e.g., today is too hot, yesterday we had rain).</td>
<td>Earth and Space Sciences 4</td>
</tr>
<tr>
<td>2</td>
<td>Observe and describe seasonal changes in weather.</td>
<td>Earth and Space Sciences 5</td>
</tr>
<tr>
<td>3</td>
<td>Explore that each kind of tool has an intended use, which can be helpful or harmful (e.g., scissors can be used to cut paper but they can also hurt you).</td>
<td>Science and Technology 3</td>
</tr>
<tr>
<td>4</td>
<td>Ask “what if” questions</td>
<td>Scientific Inquiry 1</td>
</tr>
<tr>
<td>5</td>
<td>Explore and pursue student-generated “what-if” questions.</td>
<td>Scientific Inquiry 2</td>
</tr>
<tr>
<td>6</td>
<td>Use appropriate safety procedures when completing scientific investigations.</td>
<td>Scientific Inquiry 3</td>
</tr>
<tr>
<td>7</td>
<td>Use the five senses to make observations about the natural world.</td>
<td>Scientific Inquiry 4</td>
</tr>
<tr>
<td>8</td>
<td>Draw pictures that correctly portray features of the item being described.</td>
<td>Scientific Inquiry 5</td>
</tr>
<tr>
<td>9</td>
<td>Recognize that numbers can be used to count a collection of things.</td>
<td>Scientific Inquiry 6</td>
</tr>
<tr>
<td>10</td>
<td>Use appropriate tools and simple equipment/instruments to safely gather scientific data (e.g., magnifiers and other appropriate tools).</td>
<td>Scientific Inquiry 7</td>
</tr>
<tr>
<td>11</td>
<td>Measure the lengths of objects using non-standard methods of measurement (e.g., teddy bear counters, pennies).</td>
<td>Scientific Inquiry 8</td>
</tr>
<tr>
<td>12</td>
<td>Make pictographs and use them to describe observations and draw conclusions.</td>
<td>Scientific Inquiry 9</td>
</tr>
<tr>
<td>13</td>
<td>Make new observations when people give different descriptions for the same thing.</td>
<td>Scientific Inquiry 10</td>
</tr>
<tr>
<td>14</td>
<td>Recognize that scientific investigations involve asking open-ended questions. (How? What if?).</td>
<td>Scientific Ways of Knowing 1</td>
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<td>16</td>
<td>Interact with living things and the environment in ways that promote respect.</td>
<td>Scientific Ways of Knowing 3</td>
</tr>
<tr>
<td>17</td>
<td>Demonstrate ways science is practiced by people everyday (children and adults).</td>
<td>Scientific Ways of Knowing 4</td>
</tr>
</tbody>
</table>
Unit of Study: Objects Around Us

Time: Throughout year

Unit Overview: Objects can be described in terms of the materials that are made of and their physical properties. Once you know about the physical properties of an object you can predict how that object will interact with other objects.

Content / Concepts Taught:
- What Can We Find Out About Objects?
- How Can We Sort Objects?
- How Can We Describe the Position of Objects?
- How Can Objects Change?
- How Do We Move Objects?
- Which Objects Do Magnets Move?

Core Materials: Harcourt Science Curriculum – See unit E (You do not need to do lesson 5))

Academic Content Standards used in this unit of study: Physical Sciences, Science and Technology, Scientific Inquiry, Scientific Ways of Knowing

Standard: Physical Sciences
Benchmark A: Discover that many objects are made of parts that have different characteristics. Describe these characteristics and recognize ways an object may change.
  Indicators: Nature of Matter
  1. Demonstrate that objects are made of parts (e.g., toys, chairs).
  2. Examine and describe objects according to the materials that make up the object (e.g., wood, metal, plastic and cloth).
  2. Describe and sort objects by one or more properties (e.g., size, color, shape).

Benchmark B: Recognize that light, sound and objects move in different ways.
  Indicators: Forces and Motion
  4. Explore that things can be made to move in many different ways, such as straight, zigzag, up and down, round and round, back and forth, or fast and slow.
  5. Investigate ways to change how something is moving (e.g., push, pull).

Standard: Science and Technology
Benchmark A: Explain why people, when building or making something, need to determine what it will be made of, how it will affect other people and the environment.
  Indicator: Understanding Technology
  1. Explore that objects can be sorted as "natural" or "man-made".
  Can use Harcourt (page E15) for concept of natural / man made objects – but children will probably need more experiences.

Benchmark B: Explain that to construct something requires planning, communicating, problem solving and tools.
  Indicator: Abilities To Do A Technological Design
  3. Explore that each kind of tool has an intended use, which can be helpful or harmful (e.g., scissors can be used to cut paper but they can also hurt you).
**Standard: Scientific Inquiry**

**Benchmark A:** Ask a testable question.

*Indicator: Doing Scientific Inquiry*
1. Ask “what if” questions.

**Benchmark B:** Design and conduct a simple investigation to explore a question.

*Indicators: Doing Scientific Inquiry*
3. Use appropriate safety procedures when completing scientific investigations.
4. Use the five senses to make observations about the natural world.
7. Use appropriate tools and simple equipment / instruments to safely gather scientific data (e.g., magnifiers and other appropriate tools).
10. Make new observations when people give different descriptions for the same thing.

**Benchmark C:** Gather and communicate information from careful observations and simple investigation through a variety of methods.

*Indicator: Doing Scientific Inquiry*
9. Make pictographs and use them to describe observations and draw conclusions.

**Standard: Scientific Ways of Knowing**

**Benchmark A:** Recognize that there are different ways to carry out scientific investigations. Realize that investigations can be repeated under the same conditions with similar results and may have different explanations.

*Indicator: Nature of Science*
1. Recognize that scientific investigations involve asking open-ended questions (How? What if?).
2. Recognize that people are more likely to accept your ideas if you can give good reasons for them.

**Benchmark C:** Recognize that diverse groups of people contribute to our understanding of the natural world.

*Indicator: Science and Society*
1. Demonstrate ways science is practiced by people everyday (children and adults).

**Vocabulary for Unit E: Objects Around Us**

<table>
<thead>
<tr>
<th>object</th>
<th>material</th>
<th>size</th>
<th>weight</th>
<th>over</th>
</tr>
</thead>
<tbody>
<tr>
<td>under</td>
<td>in</td>
<td>out</td>
<td>above</td>
<td>below</td>
</tr>
<tr>
<td>left</td>
<td>right</td>
<td>cut</td>
<td>tear</td>
<td>bend</td>
</tr>
<tr>
<td>fold</td>
<td>push</td>
<td>pull</td>
<td>gravity</td>
<td>roll</td>
</tr>
<tr>
<td>fast</td>
<td>slow</td>
<td>magnets</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Process Skills included in Unit E: Objects Around Us**
- Compare
- Observe
- Classify
- Communicate
- Order
- Infer
- Predict

**Language Arts Supplemental Materials:**

*Newbridge Discovery Links Nonfiction Guided Reading Books (Language Arts Adoption)*
- Squares Everywhere; What’s Round?; Wheels; Using Tools; Push or Pull; Patterns; Magnets

**Language Arts Units Book List**
- The Button Box (Reid)
- Caps For Sale (Slobodkina)
- Color Box (Dodds)
Curious George Rides A Bike (Rey)
Hello, Red Fox  (Carle)
Little Blue & Little Yellow (Lionni)
Mouse Paint (Walsh)
Ten Black Dots (Crews)

CJ FUNdamentals Big Books
On Top of Spaghetti
The Wheels on the Bus

CTP Big Book Series
I Can Make Patterns

Social Studies Supplemental Materials:

Videos:

Songs:  *The Wheels on the Bus – CJ.* (Language Arts Adoption)

Assessment Materials:
2. *Performance Assessments:*
   - Harcourt Teachers Edition Activity 1 (Page E 61). This assessment also includes a scoring rubric.
3. *Informal Assessment*  Harcourt Science includes Informal Assessment ideas for each lesson.
   (Pages E 11 – E 57)
4. *Science Journal* – Children will write about what they have learned or observed.
   Children will draw a picture of something natural and something man-made.
<table>
<thead>
<tr>
<th>Date Presented</th>
<th>GRADE LEVEL INDICATORS</th>
<th>Standard Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Demonstrate that objects are made of parts (e.g., toys, chairs).</td>
<td>Physical Sciences</td>
</tr>
<tr>
<td>2</td>
<td>Examine and describe objects according to the materials that make up the object (e.g.,</td>
<td>Physical Sciences</td>
</tr>
<tr>
<td></td>
<td>wood, metal, plastic, cloth).</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>Describe and sort objects by one or more properties (e.g., size, color, shape).</td>
<td>Physical Sciences</td>
</tr>
<tr>
<td>4</td>
<td>Explore that things can be made to move in many different ways such as straight, zigzag,</td>
<td>Physical Sciences</td>
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<td></td>
<td>up and down, round and round, back and forth, or fast and slow.</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>Investigate ways to change how something is moving (e.g., push, pull).</td>
<td>Physical Sciences</td>
</tr>
<tr>
<td>6</td>
<td>Explore that objects can be sorted as “natural” or “man-made”.</td>
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</tr>
<tr>
<td>7</td>
<td>Explore that each kind of tool has an intended use, which can be helpful or harmful (e.g.,</td>
<td>Science and Technology</td>
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<td></td>
<td>scissors can be used to cut paper but they can also hurt you).</td>
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<td>Use appropriate safety procedures when completing scientific investigations.</td>
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<td>Use the five senses to make observations about the natural world.</td>
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<td>14</td>
<td>Recognize that scientific investigations involve asking open-ended questions (How? What</td>
<td>Scientific Ways of Knowing</td>
</tr>
<tr>
<td></td>
<td>if?).</td>
<td>1</td>
</tr>
<tr>
<td>15</td>
<td>Recognize that people are more likely to accept your ideas if you can give good reasons for them.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Scientific Ways of Knowing</td>
</tr>
<tr>
<td>16</td>
<td>Demonstrate ways science is practiced by people everyday (children and adults).</td>
<td>Scientific Ways of Knowing</td>
</tr>
</tbody>
</table>

23
Unit of Study: Investigating Water

Time: Throughout the year

Unit Overview: Water can be a solid, liquid, or gas. Under the right conditions it can change from a solid to a liquid and back to a solid again. Objects interact with water in different ways – some objects sink while others float.

Content / Concepts Taught:
- How Does Water Move?
- What is Water Like?
- Which Objects Sink? Which Objects Float?
- How Does Water Change Objects?
- How Does Water Change?

Core Materials: Harcourt Science Curriculum – See unit F

Academic Content Standards used in this unit of study: Physical Sciences, Scientific Inquiry, Scientific Ways of Knowing

Standard: Physical Sciences
Benchmark A: Discover that many objects are made of parts that have different characteristics. Describe these characteristics and recognize ways an object may change.
   Indicator: Nature of Matter
   3. Describe and sort objects by one or more properties (e.g., size, color, shape).

Standard: Scientific Inquiry
Benchmark A: Ask a testable question.
   Indicator: Doing Scientific Inquiry
   1. Ask “what if” questions.
   2. Explore and pursue student-generated “what if” questions.
Benchmark B: Design and conduct a simple investigation to explore a question.
   Indicator: Doing Scientific Inquiry
   4. Use the five senses to make observations about the natural world.
   10. Make new observations when people give different descriptions for the same thing.
Benchmark C: Gather and communicate information from careful observations and simple investigation through a variety of methods.
   Indicator: Doing Scientific Inquiry
   5. Draw pictures that correctly portray features of the item being described.
   6. Recognize that numbers can be used to count a collection of things.
   9. Make pictographs and use them to describe observations and draw conclusions.

Standard: Scientific Ways of Knowing
Benchmark A: Recognize that there are different ways to carry out scientific investigations. Realize that investigations can be repeated under the same conditions with similar results and may have different explanations.
   Indicator: Nature of Science
   1. Recognize that scientific investigations involve asking open-ended questions (How? What if?).
   2. Recognize that people are more likely to accept your ideas if you can give good reasons for them.
Benchmark C: Recognize that diverse groups of people contribute to our understanding of the natural world.  
Indicator: Science and Society

4. Demonstrate ways science is practiced by people everyday (children and adults).

Vocabulary for Unit F: Investigating Water

- water
- surface tension
- sink
- float
- dissolve
- liquid
- solid
- gas
- change
- evaporate

Process Skills included in Unit F: Investigating Water

- Observe
- Record Data
- Compare
- Predict
- Communicate

Language Arts Supplemental Materials:

- Newbridge Discovery Links Nonfiction Guided Reading Books (Language Arts Adoption)
- Bubbles; Water Changes

Language Arts Units Book List

- It Looked Like Spilled Milk (Shaw)
- Rain (Kalan)

CJ FUNdamentals Big Books

- Five Green and Speckled Frogs
- Down By the Bay
- Five Little Ducks

Social Studies Supplemental Materials:

- Make Mine Ice Cream (Berger)
- Water! Water! (Cowley)

Videos:

Songs: Row, Row, Row your Boat

Assessment Materials:

   Teaching Resource Page TR 59, TR 60.
2. Performance Assessments:
   - Harcourt Teachers Edition Activity 1 (Page F 47). This assessment also includes a scoring rubric.
3. Informal Assessment  Harcourt Science includes Informal Assessment ideas for each lesson.  (Pages F 11 – F 43)
4. Science Journal – Children will write about what they have learned or observed.
<table>
<thead>
<tr>
<th>Date Presented</th>
<th>Grade Level Indicators in Investigating Water Unit</th>
<th>Standard Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Describe and sort objects by one or more properties (e.g., size, color, shape).</td>
<td>Physical Sciences 3</td>
</tr>
<tr>
<td>2</td>
<td>Ask “what if” questions.</td>
<td>Scientific Inquiry 1</td>
</tr>
<tr>
<td>3</td>
<td>Explore and pursue student-generated “what-if” questions.</td>
<td>Scientific Inquiry 2</td>
</tr>
<tr>
<td>4</td>
<td>Use the five senses to make observations about the natural world.</td>
<td>Scientific Inquiry 4</td>
</tr>
<tr>
<td>5</td>
<td>Draw pictures that correctly portray features of the item being described.</td>
<td>Scientific Inquiry 5</td>
</tr>
<tr>
<td>6</td>
<td>Recognize that numbers can be used to count a collection of things.</td>
<td>Scientific Inquiry 6</td>
</tr>
<tr>
<td>7</td>
<td>Make pictographs and use them to describe observations and draw conclusions.</td>
<td>Scientific Inquiry 9</td>
</tr>
<tr>
<td>8</td>
<td>Make new observations when people give different descriptions for the same thing.</td>
<td>Scientific Inquiry 10</td>
</tr>
<tr>
<td>9</td>
<td>Recognize that scientific investigations involve asking open-ended questions (How? What if?)</td>
<td>Scientific Ways of Knowing 1</td>
</tr>
<tr>
<td>10</td>
<td>Recognize that people are more likely to accept your ideas if you can give good reasons for them.</td>
<td>Scientific Ways of Knowing 2</td>
</tr>
<tr>
<td>11</td>
<td>Demonstrate ways science is practiced by people everyday (children and adults).</td>
<td>Scientific Ways of Knowing 4</td>
</tr>
</tbody>
</table>