

## Wilson Area School District Planned Course Guide

**Title of planned course:** Kindergarten Science

**Subject Area:** Science

**Grade Level:** Kindergarten

**Course Description:** Through this course, students will be acquainted with and learn about the following:

1. Pushes and Pulls
  - Observe how, understand why, and investigate how objects move
2. Matter
  - Name the five senses
  - Describe and sort objects
  - Observe the three states of matter
3. Sunlight
  - Describe the sun
  - Observe how sunlight warms objects on the Earth's surface
4. Earth's Weather
  - Describe different types of weather
  - Observe that weather changes from day to day
  - Observe patterns in the weather
  - Describe the seasons
  - Understand why it is important to prepare for severe weather
5. Needs of Living Things
  - Recognize what plants need to survive
  - Recognize what animals need to survive
  - Recognize what people need to survive
  - Recognize that plants and animals change as they grow through life cycles
6. Environments
  - Observe different places where plants and animals live
  - Observe ways that plants and animals change their environment
  - Observe ways people can change their environment
  - Tell how they protect their environment

**Time/Credit for this Course:** One Full Academic Year

**Curriculum Writing Committee:** Robin Stem and Stephanie Hlcks

## Curriculum Map

**August:** Introduction to School Routines

**September:**

**October:** Topic 3 Sunlight (10 days)

**November:** Topic 4 Earth's Weather (20 days)

**December:**

**January:** Topic 1 Pushes and Pulls (15 days)

**February:** Topic 2 Matter (15 days)

**March:**

**April:** Topic 5 Needs of Living Things (20 days)

**May:** Topic 6 Environments (20 days)

**June:**

## Wilson Area School District Planned Course Materials

**Course Title:** Kindergarten Science

**Textbook:** Elevate Science

**Teacher Resources:**

- Teacher Manual
- Student Edition/workbook
- Lab Kits
- Videos
- Interactivities

## Curriculum Scope & Sequence

**Planned Course:** Kindergarten Science

**Unit:** Earth Science ~ Topic 3 Sunlight

**Time frame:** 10 Days

### **State Standards**

- 3.2.K.C Make observations to determine the effect of sunlight on Earth's surface.
- 3.2.K.D Use tools and materials to design and build a structure that will reduce the warming effect of sunlight on an area.

**Essential content/objectives:** At end of the unit, students will be able to:

- Describe the sun
- Observe how sunlight warms objects on the Earth's surface

**Core Activities:** Students will complete/participate in the following:

- Jumpstart Discovery
- Quest Kickoff
- Activate Prior Knowledge
- Literacy Connections/etext
- Lesson Videos
- Vocabulary Activities
- Investigate Labs
- Scaffolding
- Digital Activities
- Worksheets/workbook pages
- STEM Activities
- Journaling

### **Extensions:**

- Enrichment Activities to reinforce learning objectives
- Ask higher level thinking questions (in manual)
- Have students explain rather than describe events

### **Remediation:**

- Address preconceptions
- Make connections
- Restate, ask different or lower level questions (in manual)
- Have students describe events

### **Instructional Methods:**

- Whole Group
- Partner Work
- Discussions
- Labs
- Videos
- Online Resources

**Materials & Resources:**

- Videos
- Labs
- Chromebooks
- Student Edition Pages/Supplemental Worksheets
- Games/Songs

**Assessments:**

- Checkpoint Questions
- Class Discussions
- Observations

## Curriculum Scope & Sequence

**Planned Course:** Kindergarten Science

**Unit:** Earth Science ~ Topic 4 Earth's Weather

**Time frame:** 20 Days

### **State Standards**

- 3.3.K.A: Use and share observations about local weather conditions to describe patterns over time.
- 3.3.K.D: Ask questions to obtain information about the purpose of weather forecasting to prepare for, and respond to severe weather

**Essential content/objectives:** At end of the unit, students will be able to:

- Describe different types of weather
- Observe that weather changes from day to day
- Observe patterns in the weather
- Describe the seasons
- Understand why it is important to prepare for severe weather

**Core Activities:** Students will complete/participate in the following:

- Jumpstart Discovery
- Quest Kickoff
- Activate Prior Knowledge
- Literacy Connections/eText
- Lesson Videos
- Vocabulary Activities
- Investigate Labs
- Scaffolding
- Digital Activities
- Worksheets/workbook pages
- STEM Activities
- Journaling- School Day Forecast sheet

### **Extensions:**

- Enrichment Activities to reinforce learning objectives
- Ask higher level thinking questions (in manual)
- Have students explain rather than describe events

### **Remediation:**

- Address preconceptions
- Make connections
- Restate, ask different or lower level questions (in manual)
- Have students describe events

**Instructional Methods:**

- Whole Group
- Partner Work
- Discussions
- Labs
- Videos
- Online Resources

**Materials & Resources:**

- Videos
- Labs
- Chromebooks
- Student Edition Pages/Supplemental Worksheets
- Games/Songs

**Assessments:**

- Checkpoint Questions
- Class Discussions
- Observations

## Curriculum Scope & Sequence

**Planned Course:** Kindergarten Science

**Unit:** Physical Science ~ Topic 1 Pushes and Pulls

**Time frame:** 15 Days

### **State Standards**

- 3.2.K.A Analyze data to determine if a design solution works as intended to change the speed or direction of an object with a push or a pull
- 3.2.K.B Plan and conduct an investigation to compare the effects of different strengths or different directions of pushes and pulls on the motion of an object.
  - 3.5.K-2.O Illustrate that there are different solutions to a design and that none are perfect.

**Essential content/objectives:** At end of the unit, students will be able to:

- Observe how objects move
- Understand why objects move
- Investigate how objects move

**Core Activities:** Students will complete/participate in the following:

- Jumpstart Discovery
- Quest Kickoff
- Activate Prior Knowledge
- Literacy Connections/eText
- Lesson Videos
- Vocabulary Activities
- Investigate Labs
- Scaffolding
- Digital Activities
- Worksheets/workbook pages
- STEM Activities
- Journaling~ draw/sort ways objects move

### **Extensions:**

- Enrichment Activities to reinforce learning objectives
- Ask higher level thinking questions (in manual)
- Have students explain rather than describe events

### **Remediation:**

- Address preconceptions
- Make connections
- Restate, ask different or lower level questions (in manual)
- Have students describe events

### **Instructional Methods:**

- Whole Group
- Partner Work
- Discussions
- Labs

- Videos
- Online Resources

**Materials & Resources:**

- Videos
- Labs
- Chromebooks
- Student Edition Pages/Supplemental Worksheets
- Games/Songs

**Assessment**

- Checkpoint Questions
- Class Discussions
- Observations

## Curriculum Scope & Sequence

**Planned Course:** Kindergarten Science

**Unit:** Physical Science ~ Topic 2 Matter

**Time frame:** 15 Days

### **State Standards**

- 3.2.K.A1: Identify and classify objects by observable properties of matter. Compare different kinds of materials and discuss their uses.
- 3.2.K.A3 Describe the way matter can change
- 3.2.K.A5 Recognize that everything is made of matter.
  - 3.5.K-2.N Analyze how things work.
  - 3.5.K-2.V Explain that materials are selected for use because they possess desirable properties and characteristics.

**Essential content/objectives:** At end of the unit, students will be able to:

- Name the five senses
- Describe and sort objects
- Observe the three states of matter

**Core Activities:** Students will complete/participate in the following:

- Jumpstart Discovery
- Quest Kickoff
- Activate Prior Knowledge
- Literacy Connections/eText
- Lesson Videos
- Vocabulary Activities
- Investigate Labs
- Scaffolding
- Digital Activities
- Worksheets/workbook pages
- STEM Activities
- Journaling ~ drawings of senses and states of matter
- Sorting

### **Extensions:**

- Enrichment Activities to reinforce learning objectives
- Ask higher level thinking questions (in manual)
- have students explain rather than describe events

### **Remediation:**

- Address preconceptions
- Make connections
- Restate, ask different or lower level questions (in manual)
- Have students describe events

**Instructional Methods:**

- Whole Group
- Partner Work
- Discussions
- Labs
- Videos
- Online Resources

**Materials & Resources:**

- Videos
- Labs
- Chromebooks
- Student Edition Pages/Supplemental Worksheets
- Games/Songs

**Assessments:**

- Checkpoint Questions
- Class Discussions
- Observations

## Curriculum Scope & Sequence

**Planned Course:** Kindergarten Science

**Unit:** Physical Science ~ Topic 5 Needs of Living Things

**Time frame:** 20 Days

### **State Standards**

- 3.1.K.A: Use observations to describe patterns of what plants and animals (including humans) need to survive.
  - 3.5.K-2.L: *Explore how technologies are developed to meet individual and societal needs and wants*
  - 3.5.K-2.K: *Explain that design is a response to wants and needs*
  - 3.5.K-2.K: *Use safety tools to complete a task*
  - 3.5.K-2.H: Explain the needs and wants of individuals and societies.
  - 3.4.K-2.A: *Categorize way people harvest, redistribute and use natural resources*

**Essential content/objectives:** At end of the unit, students will be able to:

- Recognize what plants need to survive
- Recognize what animals need to survive
- Recognize what people need to survive
- Recognize that plants and animals change as they grow through life cycles

**Core Activities:** Students will complete/participate in the following:

- Jumpstart Discovery
- Quest Kickoff
- Activate Prior Knowledge
- Literacy Connections/eText
- Lesson Videos
- Vocabulary Activities
- Investigate Labs
- Scaffolding
- Digital Activities
- Worksheets/workbook pages
- STEM Activities
- Journaling
- Crafts

### **Extensions:**

- Enrichment Activities to reinforce learning objectives
- Ask higher level thinking questions (in manual)
- Have students explain rather than describe events

### **Remediation:**

- Address preconceptions
- Make connections
- Restate, ask different or lower level questions (in manual)
- Have students describe events

**Instructional Methods:**

- Whole Group
- Partner Work
- Discussions
- Labs
- Videos
- Online Resources

**Materials & Resources:**

- Videos
- Labs
- Chromebooks
- Student Edition Pages/Supplemental Worksheets
- Games/Songs

**Assessments:**

- Checkpoint Questions
- Class Discussions
- Observations

## Curriculum Scope & Sequence

**Planned Course:** Kindergarten Science

**Unit:** Physical Science ~ Topic 6 Environments

**Time frame:** 20 Days

### **State Standards**

- 3.3.K.B: Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs.
- 3.3.K.C: Use a model to represent the relationship between the needs of different plants or animals (including humans) and the places they live
- 3.3.K.E: Communicate solutions that will reduce the impact of humans on the land, water, air and/or other living things in the local environment
  - 3.4.K-2.C: Explain ways that places differ in their physical environment characteristics, their meaning, and their value and/or importance.
  - 3.5.K-2.D: Select ways to reduce, reuse and recycle resources in daily life
  - 3.5. K-2.B: Compare the natural world and human-made world.

**Essential content/objectives:** At end of the unit, students will be able to:

- Observe different places where plants and animals live
- Observe ways that plants and animals change their environment
- Observe ways people can change their environment
- Tell how they protect their environment

**Core Activities:** Students will complete/participate in the following:

- Jumpstart Discovery
- Quest Kickoff
- Activate Prior Knowledge
- Literacy Connections/eText
- Lesson Videos
- Vocabulary Activities
- Investigate Labs
- Scaffolding
- Digital Activities
- Worksheets/workbook pages
- STEM Activities
- Journaling
- Crafts

### **Extensions:**

- Enrichment Activities to reinforce learning objectives
- Ask higher level thinking questions (in manual)
- Have students explain rather than describe events

### **Remediation:**

- Address preconceptions
- Make connections
- Restate, ask different or lower level questions (in manual)
- Have students describe events

**Instructional Methods:**

- Whole Group
- Partner Work
- Discussions
- Labs
- Videos
- Online Resources

**Materials & Resources:**

- Videos
- Labs
- Chromebooks
- Student Edition Pages/Supplemental Worksheets
- Games/Songs

**Assessments:**

- Checkpoint Questions
- Class Discussions
- Observations