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Investigating Weather & Climate Module

Grade Level K

Teacher Handbook

www.innovedinc.org

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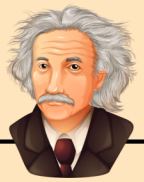
Investigating Weather and Climate Module

YouTube Visit our youtube channel @innoved-inc for additional lessons.

"Education is not the learning of facts, but the training of the mind to think."



ALBERT EINSTEIN

Dear Educator,

To support you in creating a thinking classroom, we have designed this curriculum around intentional teaching strategies. Lessons use an explore-before-explain structure, with inquiry, hands-on experiences, and real-world context to foster critical thinking, reasoning, and rich classroom discussion.

Thank you for choosing to bring these learning experiences into your classroom!

InnovEd Squad

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Module Overview

This module features **7 hands-on interdisciplinary lessons and 7 extension activities.** The students will explore the science behind weather and climate while practicing essential academic skills in math, language arts, and social studies.

Science Foundation Lesson

Investigating Weather and Climate

This module begins with the foundation lesson, where students explore weather patterns and the role of meteorologists while practicing observation and data collection skills. They begin by learning how weather conditions like sun, clouds, wind, and rain form patterns throughout the year. Using a data table, students make their own weather observations and record their findings. The lesson transitions into an engineering challenge where students apply problem-solving skills to design and build a shade structure, using their understanding of shapes to protect a playground from the sun. By combining science, math, and creativity, this lesson inspires curiosity and critical thinking, helping students understand how weather impacts our daily lives.

Math Core Lessons

Discovering Seasons

Observation and Classification

In this game-based activity, students learn about the unique traits of spring, summer, fall, and winter. They classify seasonal objects, check their answers with a data table, and organize items into envelopes. Students build observation skills as they explore seasonal changes. They also deepen their understanding of how these changes connect to everyday objects.

Weather Forecast

Data Analysis

By stepping into the role of meteorologists, students explore weather patterns and the process of creating 7-day forecasts. They sharpen their data skills by sorting weather symbols, organizing observations into data tables, and analyzing common weather conditions. This hands-on activity equips students with practical skills to understand and interpret weather data.

Is it Hot? Is it Cold?

Counting and Cardinality

Students learn to read thermometers and compare temperatures. They record and order temperatures from coldest to hottest, practicing observation and number sense. This activity encourages connections to everyday experiences, helping students understand the value of measurement.

ELA Core Lessons

Cloud Book

Opinion Writing

Students investigate cloud types and meteorology tools through engaging visuals and a game. They identify cumulus, stratus, and cirrus clouds, then create a personalized weather journal by tracing, counting, and organizing information. This hands-on activity enhances observation skills and sparks creativity, inspiring students to explore and appreciate the sky and its patterns.

Breezy and Stormy's Adventure

Reading and Vocabulary Acquisition

Through this interactive activity, students practice their literacy skills by combining phonics, listening, and comprehension. As they listen to the story, they match picture cards to key words, connecting spoken words to visuals. The lesson concludes with a class discussion, reinforcing vocabulary acquisition, listening skills, and comprehension.

Once Upon a Time

Storyboarding

Through creativity and organization, students practice key storytelling elements, like characters, settings, and events. They sort picture cards, create their own story on a storyboard, and share it with their friends. This activity enhances literacy skills and collaboration while encouraging creative choices.

Investigating Weather and Climate

Science Foundation Lesson

Lesson Description:

In this lesson, students explore weather patterns and the role of meteorologists while practicing observation and data collection. They begin by learning how weather conditions like sun, clouds, wind, and rain form patterns throughout the year. Using a data table, students make their own weather observations and record their findings. The lesson transitions into an engineering challenge where students apply problem-solving skills to design and build a shade structure, using their understanding of shapes to protect a playground from the sun. By combining science, math, and creativity, this lesson inspires curiosity and critical thinking, helping students understand how weather impacts our daily lives.

In this section of the handbook, you will find:

- Learning Goals, Standards, & Reading List
- Student Activity 1 Implementation Guide: Weather Observation
- Student Activity 2 Implementation Guide: Building a Model of a Shade Structure
- Science Lesson Vocabulary
- Assessment Options

Implementation Duration:

- **Activity 1-** Weather Observation: 20 - 30 minutes
- **Activity 2-** Building a Model of a Shade Structure: 30 - 40 minutes

Consider This:

- This video lesson is designed to give you flexibility as a facilitator. Pausing, rewinding, or adjusting the pace allows you to respond to your students and shape the experience to fit their needs.
- Use these pauses intentionally to invite discussion, surface student thinking, and make meaningful connections. When students have time to reflect and share, you engage multiple brain networks and deepen understanding.
- Give students room to grapple with challenges. Productive struggle builds confidence, resilience, and a lasting belief in their own capabilities.

Science Foundation Lesson

Learning Goals, Standards, & Reading List

Learning Goals

Content

- Identify weather patterns through observation and data collection.
- Analyze data to interpret weather patterns.
- Explore shapes and geometric concepts.
- Apply the principles of engineering design to create solutions to real-world challenges.

Skills

- Comparative analysis
- Fine motor skills
- Critical thinking
- Problem solving
- Collaboration
- Communication

Content Standards

NGSS

Performance Expectations

- K-ESS2-1
- K-PS3-1
- K-PS3-2

Disciplinary Core Ideas

- ESS2.D
- ESS3.A
- PS3.B
- ETS1.A
- ETS1.B
- ETS1.C

Crosscutting Concepts

- Patterns
- Cause and Effect
- Structure and Function
- Stability and Change

Science and Engineering Practices

- Asking Questions and Defining Problems
- Developing and Using Models
- Planning and Carrying Out Investigations
- Using Mathematics and Computational Thinking
- Constructing Explanations and Designing Solutions
- Obtaining, Evaluating, and Communicating Information

CCSS - ELA

Reading: Foundational Skills

- RF.K.1
- RF.K.3

Speaking and Listening

- SL.K.1
- SL.K.2
- SL.K.3
- SL.K.5
- SL.K.6

Language

- L.K.1
- L.K.5
- L.K.6

National Core Arts Standards

- Anchor Standard 1

C3 Framework for Social Studies

- D2.Geo.5.K-2

CCSS - Math

Counting and Cardinality

- K.CC.B.4

Geometry

- K.G.A.2
- K.G.B.5

Math Practices

- MP.4
- MP.5
- MP.7

SEL Competencies

- Relationship Skills
- Responsible Decision-Making
- Self-Awareness
- Self-Management

Recommended Reading List

We've put together a short list of books for you that connect to the context of this module. These books can be used anywhere throughout the module and are a great way to spark student interest while also giving you opportunities to cover additional standards in Reading: Literature (RL), Reading: Informational Text (RI), and Reading: Foundational Skills (RF). A copy of all of these books can be found on getepic.com.

Non-fiction Books

- *How's the Weather in Spring?* by Jenna Lee Gleisner*
- *Our Weather* by Pam Holden
- *Weather* by Dona Herweck Rice*
- *What is Today's Weather?* by Jennifer Boothroyd

Fiction Books

- *Bear in Sunshine* by Stella Blackstone
- *It's Raining Cats and Frogs* by Harriet Ziefert*
- *Our Snowy Day* by Robert Rosen*
- *Silly Kitty and the Windy Day* by Nicola Lopetz*

* Indicates "Read to Me" feature is available on Epic.

Science Foundation Lesson

Implementation Guide

Student Activity 1: Weather Observation

Activity Description

In this activity, students observe weather patterns and record information in a data table. They practice identifying key elements like sun, clouds, wind, and rain, building a deeper understanding of how weather changes over time.

Materials Provided

- Student activity booklet document:
  - Weather Observation Data Table - Page 1

Materials Needed

- Glue sticks
- Pencils
- Scissors



Student Activity 2: Building a Model of a Shade Structure

Activity Description

In this activity, students create a model of a shade structure to protect a playground from the sun. They experiment with materials and shapes to create a functional model.

Materials Provided

- Blank pieces of paper
- Multi-colored clay
- Popsicle sticks



Materials Needed

- Coloring tools
- Glue sticks
- Pencils



Science Foundation Lesson

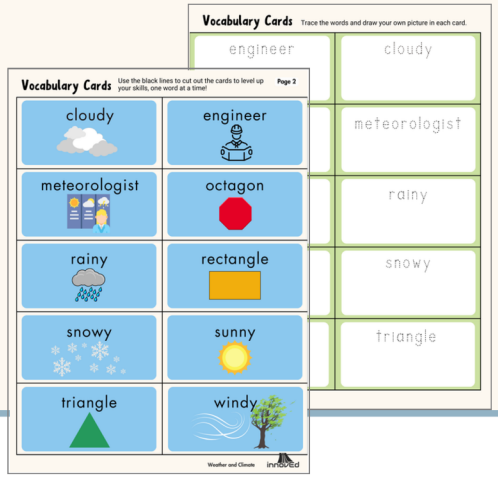
Vocabulary

The vocabulary cards can be used to reinforce the vocabulary introduced in the Science Foundation Lesson.

1

Explore

Ask students to cut out the vocabulary cards and take a few minutes to explore the words on their own.



2

Whole Class Practice

As a whole class, practice the vocabulary words together.

3

Vocabulary Challenge

Pair students in teams of two to play a game. Player 1 selects a card and provides clues about the word without saying it directly. Player 2 guesses the word. Players switch roles after each turn.

Content Standards

CCSS - ELA

<u>Reading: Foundational Skills</u>

- RF.K.1
- RF.K.2
- RF.K.3

<u>Speaking and Listening</u>

- SL.K.1
- SL.K.5
- SL.K.6

<u>Language</u>

- L.K.1
- L.K.4

SEL Competencies

- Relationship Skills
- Self-Management

Consider reading the paragraph below to your students. This paragraph incorporates the vocabulary they've learned, showing them how each word can be used in context.

Weather Patterns

Have you ever looked outside and noticed if it was sunny, cloudy, or maybe even rainy or snowy? That's what a meteorologist does—they study the weather and tell us if it might be windy or calm. Sometimes meteorologists are helped by engineers. An engineer is someone who solves problems and builds amazing things. They use shapes like a triangle, rectangle, or even an octagon to create something special. Together, meteorologists and engineers work to help us stay safe and enjoy all kinds of weather!

Science Foundation Lesson

Assessment Options

Assessments are always important for tracking progress and planning next steps. We've provided a few options for you to consider. We encourage you to explore and select those that best meet the needs of your students.

Ask students to complete the "Weather Cards" document found on page 3 in their activity booklet. To conduct the assessment, search for weather related pictures online. Then, show the pictures to the class, and ask students to hold up the card that matches each picture you display.

Guide students in creating a week-long weather observation book. Have them record the weather conditions each day to assess their ability to observe and identify weather patterns.

Content Standards - Assessment 1

CCSS - ELA

Reading: Informational Text
- RF.K.1
- RF.K.2
- RF.K.3

Writing
- W.K.8

Language
- L.K.1
- L.K.4
- L.K.6

Speaking and Listening
- SL.K.1

NGSS

Disciplinary Core Ideas
- ESS2.D

SEL Competencies

- Responsible Decision-Making

Content Standards - Assessment 2

NGSS

Performance Expectations
- K-ESS2-1

Disciplinary Core Ideas
- ESS2.D

CCSS - ELA

Speaking and Listening
- SL.K.5

Language
- L.K.6

SEL Competencies

- Self-Awareness
- Self-Management
- Responsible Decision-Making

Discovering Seasons

Math Core Lesson - Observation and Classification

Lesson Description:

In this game-based activity, students learn about the unique traits of spring, summer, fall, and winter. They classify seasonal objects, check their answers with a data table, and organize items into envelopes. This activity builds observation skills and deepens understanding of seasonal changes and their connection to everyday objects.

In this section you will find:

- Discovering Seasons Lesson Overview
- Discovering Seasons Extension Activities
- Build Lessons On Ideas That Emerge - Notes Page

Implementation Duration: 60-75 minutes

Consider This:

- This video lesson is designed to give you flexibility as a facilitator. Pausing, rewinding, or adjusting the pace allows you to respond to your students and shape the experience to fit their needs.
- Use these pauses intentionally to invite discussion, surface student thinking, and make meaningful connections. When students have time to reflect and share, you engage multiple brain networks and deepen understanding.
- Give students room to grapple with challenges. Productive struggle builds confidence, resilience, and a lasting belief in their own capabilities.

Discovering Seasons

Lesson Overview

Lesson Description

In this game-based activity, students learn about the unique traits of spring, summer, fall, and winter. They classify seasonal objects, check their answers with a data table, and organize items into envelopes. This activity builds observation skills and deepens understanding of seasonal changes and their connection to everyday objects.

Learning Goals

Content

- Identify and describe the characteristics of different seasons.
- Organize objects into categories.
- Build and expand vocabulary.

Skills

- Classification
- Fine motor skills
- Critical thinking
- Problem solving
- Collaboration
- Communication

Materials

- Student activity booklet document:
  - Discovering Seasons - Page 4
- Pencils
- Scissors
- Blank pieces of paper
- Glue sticks

Teaching Strategies Highlighted in this Activity

- Explore-before-explain
- Scaffolding
- Self-assessment
- Collaborative learning
- Game-based learning

Content Standards

CCSS - Math

Counting and Cardinality

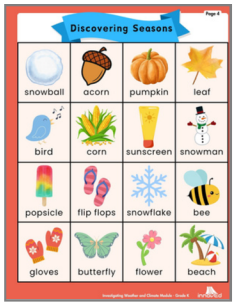
- K.CC.A.1
- K.CC.B.4
- K.CC.B.5

Measurement and Data

- K.MD.B.3

Math Practices

- MP.4
- MP.5
- MP.7



CCSS - ELA

Reading: Foundational Skills

- RF.K.1
- RF.K.2
- RF.K.3

Writing

- W.K.8

Speaking and Listening

- SL.K.1
- SL.K.2
- SL.K.3

Language

- L.K.1
- L.K.5
- L.K.6

NGSS

Performance Expectations

- K-ESS2-1

Disciplinary Core Ideas

- ESS2.D
- ESS3.C

Crosscutting Concepts

- Patterns
- Scale, Proportion, and Quantity
- Stability and Change

Science and Engineering Practices

- Asking Questions and Defining Problems
- Engaging in Argument from Evidence
- Obtaining, Evaluating, and Communicating Information

SEL Competencies

- Relationship Skills
- Responsible Decision-Making
- Self-Awareness
- Self-Management

Discovering Seasons

Extension Activities

Further Exploration

We have included extension activities for you to enhance this lesson. These are great options for students who finish early and need an additional challenge. These can also be used as follow-up lessons for the whole class to deepen their understanding. Enjoy the journey of discovery with your students!

Extension Activity 1: Discovering Seasons Challenge

- Once teams have completed the matching game with the summer envelope, challenge them to repeat the activity by matching the other seasons: spring, fall, and winter.
- Depending on students' readiness, invite teams to combine cards from two or three seasons and play the matching game with the larger set.

Content Standards

CCSS - ELA

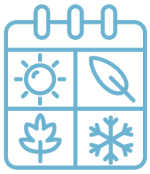
Reading: Foundational Skills
- RF.K.1
- RF.K.3

Speaking and Listening
- SL.K.1

Language
- L.K.5
- L.K.6

SEL Competencies

- Relationship Skills
- Self-Awareness
- Self-Management



Extension Activity 2: Favorite Finds

- To begin this activity, make sure students have their Season Cards from the Discovering Seasons lesson.
- Guide students to choose their ten favorite cards.
- Then, ask them to count the number of letters in each item's name and write it on the card.
- Inform students that now their job is to arrange the cards in order, starting with the word that has the fewest letters and ending with the word that has the most letters.

Content Standards

CCSS - Math

Counting and Cardinality
- K.CC.A.1
- K.CC.A.3
- K.CC.B.4
- K.CC.B.5
- K.CC.C.6

Measurement and Data
- K.MD.A.2

Math Practices
- MP.1
- MP.4
- MP.6

CCSS - ELA

Language
- L.K.6

SEL Competencies

- Responsible Decision-Making
- Self-Awareness
- Self-Management

Build Lessons On Ideas That Emerge

Discovering Seasons Lesson

Record student comments and interests to inspire your future lessons.

After implementing the lesson, rewatch the intro to look for ideas to extend the learning.

Use AI tools to generate follow-up activities and different DOK Level questions.

Weather Forecast

Math Core Lesson - Data Analysis

Lesson Description:

In this activity, students step into the role of meteorologists to explore weather patterns and the process of creating a 7-day forecast. They sharpen their data skills by sorting weather symbols, organizing observations into data tables, and analyzing common weather conditions. This hands-on activity equips students with practical skills to understand and interpret weather data.

In this section you will find:

- Weather Forecast Lesson Overview
- Weather Forecast Extension Activity
- Build Lessons On Ideas That Emerge - Notes Page

Implementation Duration: 60-75 minutes

Consider This:

- This video lesson is designed to give you flexibility as a facilitator. Pausing, rewinding, or adjusting the pace allows you to respond to your students and shape the experience to fit their needs.
- Use these pauses intentionally to invite discussion, surface student thinking, and make meaningful connections. When students have time to reflect and share, you engage multiple brain networks and deepen understanding.
- Give students room to grapple with challenges. Productive struggle builds confidence, resilience, and a lasting belief in their own capabilities.

Weather Forecast

Lesson Overview

Lesson Description

In this activity, students step into the role of meteorologists to explore weather patterns and the process of creating a 7-day forecast. They sharpen their data skills by sorting weather symbols, organizing observations into data tables, and analyzing common weather conditions. This hands-on activity equips students with practical skills to understand and interpret weather data.

Learning Goals

Content

- Understand why weather forecasting is important.
- Describe how weather forecasts help people prepare for different weather conditions.
- Recognize and name different types of weather.
- Compare and contrast quantities.
- Collect and analyze data.

Skills

- Math application
- Sequencing
- Classification
- Fine motor skills
- Collaboration
- Communication
- Critical thinking
- Problem solving

Career Spotlight: Meteorologist

In this activity, students step into the role of meteorologists, analyzing weather patterns.

Materials

- Student activity booklet documents:
  - 14-Day Weather Forecast - Page 5
  - Weather Data Table - Page 6
- Pencils
- Scissors
- Glue Sticks

Teaching Strategies Highlighted in this Activity

- Explore-before-explain
- Real-world connections
- Inquiry-based learning
- Scaffolding
- Hands-on learning

Content Standards

CCSS - Math

Counting and Cardinality
- K.CC.A.3
- K.CC.B.4
- K.CC.B.5
- K.CC.C.6

Measurement and Data
- K.MD.B.3

Math Practices
- MP.1
- MP.2
- MP.4
- MP.5
- MP.6
- MP.7

CCSS - ELA

Reading: Foundational Skills
- RF.K.1

Speaking and Listening
- SL.K.1
- SL.K.2
- SL.K.3
- SL.K.6

Language
- L.K.1
- L.K.5
- L.K.6

C3 Framework for Social Studies

- D2.Civ.2.K-2

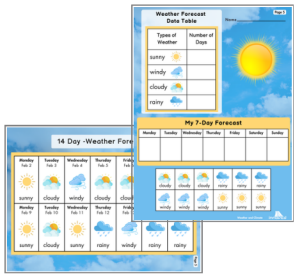
NGSS

Performance Expectations
- K-ESS2-1

Disciplinary Core Ideas
- ESS2.D

Crosscutting Concepts
- Patterns
- Systems and System Models
- Stability and Change

Science and Engineering Practices
- Developing and Using Models
- Analyzing and Interpreting Data
- Using Mathematics and Computational Thinking
- Obtaining, Evaluating, and Communicating Information



SEL Competencies

- Relationship Skills
- Responsible Decision-Making
- Self-Awareness
- Self-Management

Weather Forecast

Extension Activity

Further Exploration

We have included an extension activity for you to enhance this lesson. This is a great option for students who finish early and need an additional challenge. It can also be used as a follow-up lesson for the whole class to deepen their understanding. Enjoy the journey of discovery with your students!

Extension Activity: Weather Watch

- Pair students in teams of two.
- Choose three different cities and provide teams with the real 10-day forecast for each city.
- Ask teams to add up the number of sunny days, cloudy days, and rainy days in each city and write the numbers down on a blank piece of paper.
- There are many different things you can do with these numbers. For example:
  - You can ask students to put the cities in order from largest to smallest number of sunny days. They can follow the same process for rainy and cloudy days.
  - Based on your students' readiness, you can challenge them to find the total number of sunny days, cloudy days, and rainy days across all three cities.

Content Standards

CCSS - Math

Counting and Cardinality
- K.CC.A.1
- K.CC.A.3
- K.CC.B.4
- K.CC.B.5
- K.CC.C.7

Operations and Algebraic Thinking
- K.OA.A.1
- K.OA.A.2

Measurement and Data
- K.MD.B.3

Math Practices
- MP.1
- MP.2
- MP.4
- MP.6

CCSS - ELA

Speaking and Listening
- SL.K.1
- SL.K.3

Language
- L.K.1
- L.K.6

NGSS

Performance Expectations
- K-ESS2-1

Disciplinary Core Ideas
- ESS2.D

Crosscutting Concepts
- Patterns
- Cause and Effect
- Stability and Change

Science and Engineering Practices
- Asking Questions and Defining Problems
- Developing and Using Models
- Analyzing and Interpreting Data
- Using Mathematics and Computational Thinking
- Obtaining, Evaluating, and Communicating Information

C3 Framework for Social Studies

- D2.Geo.10.K-2

SEL Competencies

- Relationship Skills
- Responsible Decision-Making
- Self-Awareness
- Self-Management

Build Lessons On Ideas That Emerge

Weather Forecast Lesson

Record student comments and interests to inspire your future lessons.

After implementing the lesson, rewatch the intro to look for ideas to extend the learning.

Use AI tools to generate follow-up activities and different DOK Level questions.

Teacher-led Lesson

Is It Hot? Is It Cold?

Math Core Lesson - Counting and Cardinality

Lesson Description:

In this activity, students learn to read thermometers and compare temperatures. They record and order temperatures from coldest to hottest, practicing observation and number sense. This activity encourages connections to everyday experiences, helping students understand the value of measurement.

In this section you will find:

- Is It Hot? Is It Cold? Lesson Overview
- Is It Hot? Is It Cold? Implementation Guide
- Is It Hot? Is It Cold? Extension Activity

Implementation Duration: 45-60 minutes

Consider This:

- This lesson doesn't include a video, giving you the opportunity to guide the activity yourself. You'll find clear, step-by-step instructions that make implementation smooth and straightforward.
- With prompts for both pair and whole class discussions, this activity is designed to spark meaningful conversations and help students deepen their understanding of the content.
- This lesson is created to inspire curiosity and deep learning. Have fun engaging your students and supporting their discoveries along the way!

Is It Hot? Is It Cold?

Lesson Overview

Lesson Description

Students learn to read thermometers and compare temperatures. They record and order temperatures from coldest to hottest, practicing observation and number sense. This activity encourages connections to everyday experiences, helping students understand the value of measurement.

Learning Goals

Content

- Arrange numbers in order from smallest to largest.
- Recognize how thermometers are used to measure temperature.
- Learn how to read a thermometer.
- Compare hot and cold temperatures by analyzing temperature data.

Skills

- Sequencing
- Observation
- Comparison
- Number sense
- Fine motor skills
- Collaboration
- Communication
- Critical thinking
- Problem solving

Materials

- Student activity booklet document:
  - Is it Hot? Is It Cold? - Page 7
- Pencils
- Scissors

Teaching Strategies Highlighted in this Activity

- Explore-before-explain
- Visual math
- Real-world application
- Scaffolding
- Inquiry-based learning

Content Standards

CCSS - Math

Counting and Cardinality

- K.CC.A.1
- K.CC.A.3

Measurement and Data

- K.MD.A.2

Math Practices

- MP.1
- MP.2
- MP.4
- MP.5
- MP.6
- MP.7
- MP.8

CCSS - ELA

Speaking and Listening

- SL.K.1
- SL.K.2
- SL.K.3
- SL.K.6

Language

- L.K.6

NGSS

Performance Expectations

- K-ESS2-1

Disciplinary Core Ideas

- ESS2.D

Crosscutting Concepts

- Scale, Proportion, and Quantity
- Structure and Function
- Stability and Change

Science and Engineering Practices

- Asking Questions and Defining Problems
- Developing and Using Models
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- Using Mathematics and Computational Thinking
- Obtaining, Evaluating, and Communicating Information

SEL Competencies

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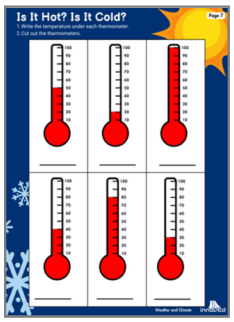
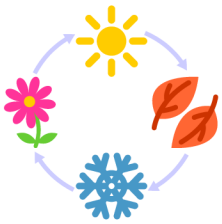
- Self-Management



Is It Hot? Is It Cold?

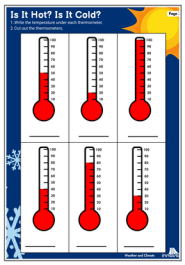
Implementation Guide

1. Setting the Context - What we're doing and why



- Begin the lesson by asking students questions like:
  - What season are we in right now? Can you name all the seasons?
  - What is the temperature outside right now? Is it hot? Is it warm? Or is it cold?
  - How do we know exactly how hot or how cold the weather is?
- After the students answer these questions, introduce the idea of thermometers and how they are used to measure temperature.

2. Reading the Thermometers



- Refer students to the "Is It Hot? Is It Cold?" document on page 7 in the student activity booklet.
- Use the first thermometer as an example to show students how to read the temperature and record the number on the line below.
- Allow students time to work individually or in pairs to read and record the temperatures on the rest of the thermometers.
- Once they've completed the task, ask students to cut out the thermometers.

3. Organizing the Numbers

- Ask students to arrange their thermometers from lowest to highest temperature.
- Then, review the order of the thermometers as a whole class.
- Next, ask students to do the opposite: arrange the thermometers from highest to lowest temperature and review the order as a whole class.
- Ask students to choose the thermometer that they think shows the hottest temperature and hold it up.
- Then, ask students to choose the thermometer that they think shows the coldest temperature and hold it up.

4. Discussion and Reflection

- Bring students together for a whole-class discussion. Ask questions such as:
  - What is your favorite kind of weather—hot, cold, or warm? Why do you like it?
  - What do you think happens to the temperature throughout the day? Does it stay the same or change? Why?
  - Why is it important to know the temperature outside?

Is It Hot? Is It Cold?

Extension Activity

Further Exploration

We have included an extension activity for you to enhance this lesson. This is a great option for students who finish early and need an additional challenge. It can also be used as a follow-up lesson for the whole class to deepen their understanding. Enjoy the journey of discovery with your students!

Extension Activity: Highs & Lows

- Give students a template of two thermometers, or ask students to create their own by tracing the thermometers from the previous activity. Their thermometers must show increments of 10.
- Provide students with the next day's high and low temperature forecast, rounded to the nearest ten. For example, if the low temperature is 42, tell students that it's 40.
- Ask students to color in one thermometer to show the low temperature and the other thermometer to show the high temperature.
- This activity can be used to introduce how temperature changes throughout the day and expose students to the concept of a temperature range.

Content Standards

CCSS - Math

Counting and Cardinality
- K.CC.A.3

Measurement and Data
- K.MD.A.2

Math Practices
- MP.1
- MP.2
- MP.4
- MP.5
- MP.6
- MP.7

CCSS - ELA

Speaking and Listening
- SL.K.2

Language
- L.K.6

NGSS

Performance Expectations
- K-ESS2-1

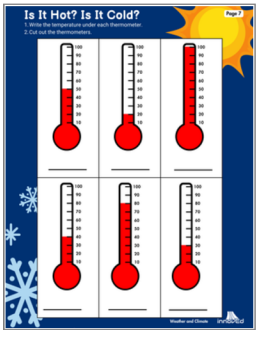
Disciplinary Core Ideas
- ESS2.D

Crosscutting Concepts
- Patterns
- Scale, Proportion, and Quantity

Science and Engineering Practices
- Developing and Using Models
- Analyzing and Interpreting Data
- Using Mathematics and Computational Thinking

SEL Competencies

- Responsible Decision-Making
- Self-Awareness



Cloud Book

ELA Core Lesson - Opinion Writing

Lesson Description:
In this interactive activity, students investigate cloud types and meteorology tools through engaging visuals and a game. They identify cumulus, stratus, and cirrus clouds, then create a personalized weather journal by tracing, counting, and organizing information. This hands-on activity enhances observation skills and sparks creativity, inspiring students to explore and appreciate the sky and its patterns.

In this section you will find:

- Cloud Book Lesson Overview
- Cloud Book Extension Activity
- Build Lessons On Ideas That Emerge - Notes Page

Implementation Duration: 60-75 minutes

Consider This:

This video lesson is designed to give you flexibility as a facilitator. Pausing, rewinding, or adjusting the pace allows you to respond to your students and shape the experience to fit their needs.

Use these pauses intentionally to invite discussion, surface student thinking, and make meaningful connections. When students have time to reflect and share, you engage multiple brain networks and deepen understanding.

Give students room to grapple with challenges. Productive struggle builds confidence, resilience, and a lasting belief in their own capabilities.

Cloud Book

Lesson Overview

Lesson Description

Students investigate cloud types and meteorology tools through engaging visuals and a game. They identify cumulus, stratus, and cirrus clouds, then create a personalized weather journal by tracing, counting, and organizing information. This hands-on activity enhances observation skills and sparks creativity, inspiring students to explore and appreciate the sky and its patterns.

Learning Goals

Content

- Recognize different types of clouds.
- Recognize tools used in meteorology.
- Letter recognition.
- Build and expand vocabulary.

Skills

- Observation
- Sorting and classification
- Fine motor skills
- Critical thinking
- Problem solving
- Collaboration
- Communication

Materials

- Student activity booklet document:
  - Weather Detectives; Clouds & Tools - Page 8
- Pencils
- Scissors
- Glue sticks
- Blank piece of paper

Teaching Strategies Highlighted in this Activity

- Explore-before-explain
- Hands-on learning
- Scaffolding
- Real-world application
- Inquiry-based learning

Content Standards

CCSS - ELA

Reading: Foundational Skills
- RF.K.1
- RF.K.2
- RF.K.3

Writing
- W.K.2

Speaking and Listening
- SL.K.1

Language
- L.K.1
- L.K.5
- L.K.6

CCSS - Maths

Counting and Cardinality
- K.CC.A.1
- K.CC.A.3
- K.CC.B.4
- K.CC.B.5

Math Practices
- MP.6

NGSS

Performance Expectations
- K-ESS3-2

Disciplinary Core Ideas
- ESS2.D

Crosscutting Concepts
- Patterns
- Cause and Effect
- Scale, Proportion, and Quantity
- Structure and Function

Science and Engineering Practices
- Asking Questions and Defining Problems
- Obtaining, Evaluating, and Communicating Information

C3 Framework for Social Studies

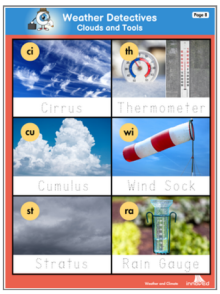
- D2.Civ.2.K-2

National Core Arts Standards

- Anchor Standard 1

SEL Competencies

- Relationship Skills
- Responsible Decision-Making
- Self-Awareness
- Self-Management



Cloud Book

Extension Activity

Further Exploration

We have included an extension activity for you to enhance this lesson. This is a great option for students who finish early and need an additional challenge. It can also be used as a follow-up lesson for the whole class to deepen their understanding. Enjoy the journey of discovery with your students!

Extension Activity: I Spy

- Inform students that they are going to play “I Spy.”
- Pair students into teams of two.
- Ask each team member to choose an item from their cloud book, without telling their partner what it is.
- To start the game, Team Member 1 will give clues about their item (e.g., "I spy something red," or "I spy something round") while Team Member 2 will try to guess what it is.
- Once the item is guessed correctly, team members will switch roles and play again.
- You can repeat this activity for as long as students are productively engaged.

Content Standards

CCSS - ELA

Reading; Foundational Skills

- RF.K.1
- RF.K.3

Speaking and Listening

- SL.K.1
- SL.K.2
- SL.K.6

Language

- L.K.6

C3 Framework for Social Studies

- D2.Civ.9.K-2

SEL Competencies

- Relationship Skills
- Responsible Decision-Making
- Self-Management

Build Lessons On Ideas That Emerge

Cloud Book Lesson

Record student comments and interests to inspire your future lessons.

After implementing the lesson, rewatch the intro to look for ideas to extend the learning.

Use AI tools to generate follow-up activities and different DOK Level questions.

Teacher-led Lesson

Breezy and Stormy's Adventure

ELA Core Lesson - Reading and Vocabulary Acquisition

Lesson Description:

Through this interactive activity, students practice their literacy skills by combining phonics, listening, and comprehension. As they listen to the story, they match picture cards to key words, connecting spoken words to visuals. The lesson concludes with a class discussion, reinforcing vocabulary acquisition, listening skills, and comprehension.

In this section you will find:

- Breezy and Stormy's Adventure Lesson Overview
- Breezy and Stormy's Adventure Implementation Guide
- Breezy and Stormy's Adventure Extension Activity
- Breezy and Stormy's Adventure Story
- Notes Page

Implementation Duration: 45-60 minutes

Consider This:

- This lesson doesn't include a video, giving you the opportunity to guide the activity yourself. You'll find clear, step-by-step instructions that make implementation smooth and straightforward.
- With prompts for both pair and whole class discussions, this activity is designed to spark meaningful conversations and help students deepen their understanding of the content.
- This lesson is created to inspire curiosity and deep learning. Have fun engaging your students and supporting their discoveries along the way!

Breezy and Stormy's Adventure

Lesson Overview

Lesson Description

Through this interactive activity, students practice their literacy skills by combining phonics, listening, and comprehension. As they listen to the story, they match picture cards to key words, connecting spoken words to visuals. The lesson concludes with a class discussion, reinforcing vocabulary acquisition, listening skills, and comprehension.

Learning Goals

Content

- Practice phonics and word recognition.
- Connect spoken text to images.
- Recall and describe characters and events in a story.

Skills

- Listening comprehension
- Fine motor skills
- Communication
- Critical thinking
- Problem solving

Materials

- Student activity booklet document:
  - Breezy and Stormy's Windy Adventure - Page 9
- Scissors

Teaching Strategies Highlighted in this Activity

- Explore-before-explain
- Inquiry-based learning
- Interactive learning
- Visual learning
- Hands-on learning

Content Standards

CCSS - ELA

Reading: Literature

- RL.K.1
- RL.K.3
- RL.K.10

Reading: Foundational Skills

- RF.K.1
- RF.K.3

Speaking and Listening

- SL.K.1
- SL.K.2
- SL.K.6

Language

- L.K.1
- L.K.4
- L.K.5
- L.K.6

C3 Framework for Social Studies

- D2.Civ.9.K-2
- D3.2.K-2
- D4.2.K-2

SEL Competencies

- Relationship Skills
- Responsible Decision-Making

Breezy and Stormy's Adventure

Implementation Guide

1. Setting the Context - What we're doing and why

- Begin the lesson by showing students this video of a windy day and a breezy day:
  - https://bit.ly/stormyandbreezy
- Follow the video by asking questions such as "What did you see?" and "What did you notice?"
- The goal of this discussion is to help students draw a comparison between a windy day and a breezy day.
- Inform students "Today we will be reading a story together about characters named Breezy and Stormy, but first we need to get ready."

2. Reviewing and Preparing the Cards

- Refer students to "Breezy and Stormy's Windy Adventure Action Cards" on page 9 in the student activity booklet.
- Lead a whole-class discussion and invite students to describe the images they see on the page. This is also a good opportunity to help students sound out the words on the cards.
- After the discussion, ask students to cut out the cards to prepare for the story.

3. Getting Ready to Read the Story

- Let students know they will be playing a 'quiet' game where they can only use their cards while listening to the story.
- Explain that when they hear a word in the story that matches one of their cards, their job is to quietly hold the card up.
  - For example, when the word "kite" comes up, students will quietly hold up their card for kite.
- This applies to all of the words and items bolded in the story.

4. Reading the Story

- The story can be found on page 27 in the teacher handbook. It can also be located on the website.
- Read the story aloud to the class.
- Pause briefly at each part of the story where students need to hold up their cards, giving them enough time to respond.

5. Discussion and Reflection

- When the story is over, have a whole class discussion and ask questions such as:
  - What was your favorite part?
  - Who were the characters in the story?
  - What did you learn from the story?

Breezy and Stormy's Adventure

Extension Activity

Further Exploration

We have included an extension activity for you to enhance this lesson. This is a great option for students who finish early and need an additional challenge. It can also be used as a follow-up lesson for the whole class to deepen their understanding. Enjoy the journey of discovery with your students!

Extension Activity: Who Do You Choose?

- Provide students with a blank piece of paper and coloring tools.
- Ask students the following question: "Who was your favorite character in this story? Stormy or Breezy? Why?"
- Explain to students that their job is to use drawings and/or words to show their favorite character and why they feel that way.
- When finished, pair students in teams of two and ask them to share their drawings and opinions with each other.

Content Standards

CCSS - ELA

Reading: Literature
- RL.K.3

Writing
- W.K.1

Language
- L.K.1
- L.K.6

Speaking and Listening
- SL.K.1
- SL.K.5
- SL.K.6

SEL Competencies

- Relationship Skills
- Responsible Decision-Making
- Self-Management
- Social Awareness

Read this story aloud to your students. As they listen, have them hold up their cards whenever they hear the words: Breezy, Stormy, leaves, kites, curtains, scarf, bell, and flowers. For detailed instructions, refer to page 25.

BREEZY AND STORMY'S WINDY ADVENTURE

Once upon a time, in a little town with green hills, there were two winds. **Breezy** was a soft, gentle wind who loved to make **leaves** dance and **flowers** move. Her friend **Stormy** was a big, strong wind who liked to blow loudly, making trees shake and rain fall hard.

One day, **Breezy** said, "Let's play gently today, **Stormy**!" **Breezy** spun in small circles, moving **leaves** into little piles and helping butterflies float. Can you find the **leaves Breezy** is moving?

Stormy watched from the clouds above. "But it's more fun to blow big and loud!" he said. **Breezy** laughed, "Come try it my way!"

Next, they went to the park where kids were flying **kites**. **Breezy** made the **kites** float gently in the sky. Can you find the **kites Breezy** is moving? **Stormy** tried, but blew a bit too hard, making the **kites** spin up high and the kids laugh. "Not too strong, **Stormy**!" **Breezy** giggled.

Then, **Breezy** drifted to the backyard of a house, where a **scarf** hung on a line and **curtains** waved by a window. She made the **curtains** move softly and lifted a small **scarf** into the air. Can you find the **scarf** and the **curtains Breezy** is moving? **Stormy** gave a gentle puff, and the **scarf** floated down safely.

Just then, they saw a shiny **bell** hanging on a tree branch. **Breezy** gave it a gentle blow, and it jingled softly. Can you find the **bell Breezy** is moving? **Stormy** blew gently too, making the **bell** ring a little louder. "See, **Stormy**? Even soft winds can make sounds!" **Breezy** said.

Finally, dark clouds started to gather, and **Stormy** wanted to blow hard. **Breezy** reminded him, "Remember what we practiced, **Stormy**." **Stormy** took a deep breath and blew gently. Raindrops fell softly, and **flowers** moved in the garden. Can you see the **flowers Stormy** moved?

When the sun came out, **Breezy** and **Stormy** rested. "Playing gently is fun too," **Stormy** said with a smile.

The End.

Notes:

Teacher-led Lesson

Once Upon A Time

ELA Core Lesson - Storyboarding

Lesson Description:

In this creative activity, students practice key storytelling elements, like characters, settings, and events. They sort picture cards, create their own story on a storyboard, and share it with their friends. This activity enhances literacy skills and collaboration while encouraging creative choices.

In this section you will find:

- Once Upon a Time Lesson Overview
- Once Upon a Time Implementation Guide
- Once Upon a Time Extension Activity

Implementation Duration: 45-60 minutes

Consider This:

- This lesson doesn't include a video, giving you the opportunity to guide the activity yourself. You'll find clear, step-by-step instructions that make implementation smooth and straightforward.
- With prompts for both pair and whole class discussions, this activity is designed to spark meaningful conversations and help students deepen their understanding of the content.
- This lesson is created to inspire curiosity and deep learning. Have fun engaging your students and supporting their discoveries along the way!

Once Upon A Time

Lesson Overview

Lesson Description

In this creative activity, students practice key storytelling elements, like characters, settings, and events. They sort picture cards, create their own story on a storyboard, and share it with their friends. This activity enhances literacy skills and collaboration while encouraging creative choices.

Learning Goals

Content

- Practice narrative writing.
- Identify characters, settings, and events in a story.
- Use pictures and drawings to create a storyboard.
- Sequence events to create a beginning, middle, and end.

Skills

- Decision making
- Classification
- Creativity
- Communication
- Critical thinking
- Problem solving

Materials

- Student activity booklet documents:
  - Once Upon a Time Story Pictures - Page 10
  - Once Upon a Time Storyboard - Page 11
- Scissors
- Pencils
- Glue Sticks

Teaching Strategies Highlighted in this Activity

- Explore-before-explain
- Inquiry-based learning
- Hands-on learning
- Visual learning
- Voice and choice

Content Standards

CCSS - ELA

Reading: Literature

- RL.K.1
- RL.K.3
- RL.K.10

Reading: Foundational Skills

- RF.K.1

Writing

- W.K.3

Speaking and Listening

- SL.K.1
- SL.K.2
- SL.K.3
- SL.K.5
- SL.K.6

Language

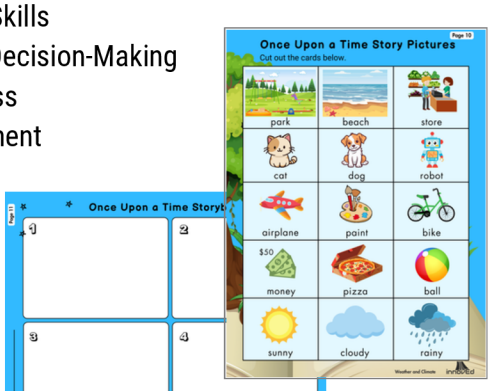
- L.K.1
- L.K.5

National Core Arts Standards

- Anchor Standard 1
- Anchor Standard 2
- Anchor Standard 6
- Anchor Standard 7

SEL Competencies

- Relationship Skills
- Responsible Decision-Making
- Self-Awareness
- Self-Management



Once Upon A Time

Implementation Guide

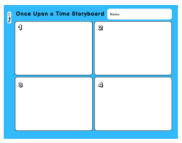
1. Setting the Context - What we're doing and why

- Begin the lesson by reading the following story to them:
  - Once upon a time, a little kitten named Milo found a shiny red ball on a sunny day. Milo hit it with his paw, and the ball rolled all the way to the sandy beach, where a friendly dog named Daisy was playing. Together, Milo and Daisy chased the ball, splashing through the waves as it bounced along the way. When a fluffy cloud drifted over the sun, Milo and Daisy decided it was time to rest, curling up together for a cozy nap by the water.
- Hold a whole class discussion to help students identify the characters, setting, and events of the story.
- Let them know that today they will be authors, creating their own stories.

2. Preparing the Story Elements

- Refer students to the "Once Upon a Time Story Pictures" document on page 10 in their student activity booklet.
- Have them look at the pictures with a partner and discuss what they see.
- Allow students time to share their observations.
- Then, ask students to cut out all the boxes.
- Once students have finished cutting, ask them to sort the pictures by places, things, and weather.
- Explain that they will use these pictures to tell their story, and give them time to choose the ones they want to include.

3. Creating and Sharing the Storyboard



- Direct students to the "Once Upon a Time Storyboard" on page 11 in their student activity booklet.
- Ask students to use the pictures they chose and place them in the boxes on their storyboard to create their own story.
- They can glue the pictures down and add drawings in the boxes to complete their story.
- After completing their stories, invite students to share their storyboards and present their stories to the group.

4. Discussion and Reflection

- Lead a class discussion for students to reflect on their experience by asking questions such as:
  - What was fun about making your story?
  - How did you decide which pictures to use for your story?
  - What's something new or interesting you learned from listening to your friends' stories?

Once Upon A Time

Extension Activity

Further Exploration

We have included an extension activity for you to enhance this lesson. This is a great option for students who finish early and need an additional challenge. It can also be used as a follow-up lesson for the whole class to deepen their understanding. Enjoy the journey of discovery with your students!

Extension Activity: Story Studio

- Pair students in teams of two.
- Provide each team with a storyboard template, or guide teams to create their own.
- To create their own storyboards, give each team a blank piece of paper and show them how to fold it in half. Then, have them fold it in half again.
- When they unfold the paper, they will see 4 equal sections created by the fold lines. These sections will be the sections of their storyboard.
- You can guide them to trace lines over the fold lines to make the sections more visible.
- Ask each team to use the leftover cards from the Once Upon a Time activity to create a story together on a storyboard.
- Encourage them to talk about their ideas and decide on the characters, setting, and what happens in their story.
- Once all the teams have completed their storyboards, organize a gallery walk to showcase their work.
- Invite students to walk around and explore the stories created by other teams.
- After the gallery walk, hold a whole class discussion and ask students to share their observations.

Content Standards

CCSS - ELA

Reading: Foundational Skills
- RF.K.1

Writing
- W.K.3

Speaking and Listening
- SL.K.1
- SL.K.5
- SL.K.6

Language
- L.K.1
- L.K.6

National Core Arts Standards

- Anchor Standard 1
- Anchor Standard 2
- Anchor Standard 7

SEL Competencies

- Relationship Skills
- Responsible Decision-Making
- Self-Management

Content Standards

Investigating Weather and Climate Module

Consider This:

This curriculum is built on a commitment to meaningful learning, where curiosity meets rigor and exploration leads to deeper understanding.

Grounded in academic standards, these experiences bridge hands-on engagement and academic mastery, ensuring each lesson is both engaging and purposeful.

The following pages list the academic standards that serve as the foundation for each lesson in this module.

NGSS - Performance Expectations	
K-PS3-1 *Page 3*	Make observations to determine the effect of sunlight on Earth's surface
K-PS3-2 *Page 3*	Use tools and materials provided to design and build a structure that will reduce the warming effect of sunlight on an area.
K-ESS2-1 *Pages 3, 6, 8, 12, 13, 16, 18*	Use and share observations of local weather conditions to describe patterns over time.
K-ESS3-2 *Page 20*	Ask questions to obtain information about the purpose of weather forecasting to prepare for, and respond to, severe weather.

NGSS - Science and Engineering Practices - Grades K-2	
Asking Questions & Defining Problems *Pages 3, 8, 13, 16, 20*	Asking questions and defining problems in K–2 builds on prior experiences and progresses to simple descriptive questions that can be tested.
Developing and Using Models *Pages 3, 12, 13, 16, 18*	Modeling in K–2 builds on prior experiences and progresses to include using and developing models (i.e., diagram, drawing, physical replica, diorama, dramatization, or storyboard) that represent concrete events or design solutions.
Planning and Carrying Out Investigations *Page 3*	Planning and carrying out investigations to answer questions or test solutions to problems in K–2 builds on prior experiences and progresses to simple investigations, based on fair tests, which provide data to support explanations or design solutions.
Analyzing and Interpreting Data *Pages 12, 13, 16, 18*	Analyzing data in K–2 builds on prior experiences and progresses to collecting, recording, and sharing observations.
Using Mathematics and Computational Thinking *Pages 3, 12, 13, 16, 18*	Mathematical and computational thinking in K–2 builds on prior experience and progresses to recognizing that mathematics can be used to describe the natural and designed world(s).

NGSS - Science and Engineering Practices - Grades K-2	
Constructing Explanations and Designing Solutions *Page 3*	Constructing explanations and designing solutions in K–2 builds on prior experiences and progresses to the use of evidence and ideas in constructing evidence-based accounts of natural phenomena and designing solutions.
Engaging in Argument from Evidence *Page 8*	Engaging in argument from evidence in K–2 builds on prior experiences and progresses to comparing ideas and representations about the natural and designed world(s).
Obtaining, Evaluating, and Communicating Information *Pages 3, 8, 12, 13, 16, 20*	Obtaining, evaluating, and communicating information in K–2 builds on prior experiences and uses observations and texts to communicate new information.

NGSS - Disciplinary Core Ideas - Grades K-2	
PS3.B *Page 3*	Conservation of Energy and Energy Transfer Sunlight warms Earth's surface.
ESS2.D *Pages 3, 6, 8, 12, 13, 16, 18, 20*	Weather and Climate Weather is the combination of sunlight, wind, snow or rain, and temperature in a particular region at a particular time. People measure these conditions to describe and record the weather and to notice patterns over time.
ESS3.A *Page 3*	Natural Resources Living things need water, air, and resources from the land, and they live in places that have the things they need. Humans use natural resources for everything they do.
ESS3.C *Page 8*	Human Impacts on Earth Systems Things that people do to live comfortably can affect the world around them. But they can make choices that reduce their impacts on the land, water, air, and other living things.

NGSS - Disciplinary Core Ideas - Grades K-2	
ETS1.A *Page 3*	Designing and Delimiting an Engineering Problem A situation that people want to change or create can be approached as a problem to be solved through engineering. Such problems may have many acceptable solutions. Asking questions, making observations, and gathering information are helpful in thinking about problems. Before beginning to design a solution, it is important to clearly understand the problem.
ETS1.B *Page 3*	Developing Possible Solutions Designs can be conveyed through sketches, drawings, or physical models. These representations are useful in communicating ideas for a problem's solutions to other people.
ETS1.C *Page 3*	Optimizing the Design Solution Because there is always more than one possible solution to a problem, it is useful to compare and test designs.

NGSS - Crosscutting Concepts - Grades K-2	
Patterns *Pages 3, 8, 12, 13, 18, 20*	Observed patterns in nature guide organization and classification and prompt questions about relationships and causes underlying them.
Cause and Effect: Mechanism and Prediction *Pages 3, 13, 20*	Events have causes, sometimes simple, sometimes multifaceted. Deciphering causal relationships, and the mechanisms by which they are mediated, is a major activity of science and engineering.
Scale, Proportion, and Quantity *Pages 8, 16, 18, 20*	In considering phenomena, it is critical to recognize what is relevant at different size, time, and energy scales, and to recognize proportional relationships between different quantities as scales change.
Systems and System Models *Page 12*	A system is an organized group of related objects or components; models can be used for understanding and predicting the behavior of systems.
Structure and Function *Pages 3, 16, 20*	The way an object is shaped or structured determines many of its properties and functions

NGSS - Crosscutting Concepts - Grades K-2	
Stability and Change *Pages 3, 8, 12, 13, 16*	For both designed and natural systems, conditions that affect stability and factors that control rates of change are critical elements to consider and understand.

CCSS Math - Counting and Cardinality	
K.CC.A.1 *Pages 8, 9, 13, 16, 20*	Count to 100 by ones and by tens.
K.CC.A.3 *Pages 9, 12, 13, 16, 18, 20*	Write numbers from 0 to 20. Represent a number of objects with a written numeral 0–20 (with 0 representing a count of no objects).
K.CC.B.4 *Pages 3, 8, 9, 12, 13, 20*	Understand the relationship between numbers and quantities; connect counting to cardinality.
K.CC.B.5 *Pages 8, 9, 12, 13, 20*	Count to answer “how many?” questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1–20, count out that many objects.
K.CC.C.6 *Pages 9, 12*	Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching and counting strategies.
K.CC.C.7 *Page 13*	Compare two numbers between 1 and 10 presented as written numerals.

CCSS Math - Operations and Algebraic Thinking	
K.OA.A.1 *Page 13*	Represent addition and subtraction with objects, fingers, mental images, drawings, 2 sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.

CCSS Math - Operations and Algebraic Thinking	
K.OA.A.2 *Page 13*	Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.

CCSS Math - Measurement and Data	
K.MD.A.2 *Pages 9, 16, 18*	Directly compare two objects with a measurable attribute in common, to see which object has “more of”/“less of” the attribute, and describe the difference. For example, directly compare the heights of two children and describe one child as taller/shorter.
K.MD.B.3 *Pages 8, 12, 13*	Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.

CCSS Math - Geometry	
K.G.A.2 *Page 3*	Correctly name shapes regardless of their orientations or overall size.
K.G.B.5 *Page 3*	Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes.

CCSS Math - Math Practices	
MP.1 *Pages 9, 12, 13, 16, 18*	Make sense of problems and persevere in solving them.
MP.2 *Pages 12, 13,16, 18*	Reason abstractly and quantitatively.
MP.4 *Pages 3, 8, 9, 12, 13, 16, 18*	Model with mathematics.

CCSS Math - Math Practices	
MP.5 *Pages 3, 8, 12, 16, 18*	Use appropriate tools strategically.
MP.6 *Pages 9, 12, 13, 16, 18, 20*	Attend to precision.
MP.7 *Pages 3, 8, 12, 16, 18*	Look for and make use of structure.
MP.8 *Page 16*	Look for and express regularity in repeated reasoning.

CCSS ELA - Reading: Literature	
RL.K.1 *Pages 3, 24, 30*	With prompting and support, ask and answer questions about key details in a text.
RL.K.2 *Page 3*	With prompting and support, retell familiar stories, including key details.
RL.K.3 *Pages 3, 24, 26, 30*	With prompting and support, identify characters, settings, and major events in a story.
RL.K.4 *Page 3*	Ask and answer questions about unknown words in a text.
RL.K.5 *Page 3*	Recognize common types of texts (e.g., storybooks, poems, fantasy, realistic text).
RL.K.6 *Page 3*	With prompting and support, name the author and illustrator of a story and define the role of each in telling the story.
RL.K.7 *Page 3*	With prompting and support, describe the relationship between illustrations and the story in which they appear (e.g., what moment in a story an illustration depicts).

CCSS ELA - Reading: Literature	
RL.K.9 *Page 3*	With prompting and support, compare and contrast the adventures and experiences of characters in familiar stories.
RL.K.10 *Pages 3, 24, 30*	Actively engage in group reading activities with purpose and understanding.

CCSS ELA - Reading: Informational Text	
RI.K.1 *Page 3*	With prompting and support, ask and answer questions about key details in a text.
RI.K.2 *Page 3*	With prompting and support, identify the main topic and retell key details of a text.
RI.K.3 *Page 3*	With prompting and support, describe the connection between two individuals, events, ideas, or pieces of information in a text.
RI.K.4 *Page 3*	With prompting and support, ask and answer questions about unknown words in a text.
RI.K.5 *Page 3*	Identify the front cover, back cover, and title page of a book.
RI.K.6 *Page 3*	Name the author and illustrator of a text and define the role of each in presenting the ideas or information in a text.
RI.K.7 *Page 3*	With prompting and support, describe the relationship between illustrations and the text in which they appear (e.g., what person, place, thing, or idea in the text an illustration depicts).
RI.K.8 *Page 3*	With prompting and support, identify the reasons an author gives to support points in a text.
RI.K.9 *Page 3*	With prompting and support, identify basic similarities in and differences between two texts on the same topic (e.g., in illustrations, descriptions, or procedures).

CCSS ELA - Reading: Informational Text	
RI.K.10 *Page 3*	Actively engage in group reading activities with purpose and understanding.

CCSS ELA - Reading: Foundational Skills	
RF.K.1 *Pages 3, 5, 6, 8, 9, 12, 20, 21, 24, 30, 32*	Demonstrate understanding of the organization and basic features of print.
RF.K.2 *Pages 3, 5, 6, 8, 20*	Demonstrate understanding of spoken words, syllables, and sounds (phonemes).
RF.K.3 *Pages 3, 5, 6, 8, 9, 20, 21, 24*	Know and apply grade-level phonics and word analysis skills in decoding words both in isolation and in text.
RF.K.4 *Page 3*	Read emergent-reader texts with purpose and understanding.

CCSS ELA - Writing	
W.K.1 *Page 26*	Use a combination of drawing, dictating, and writing to compose opinion pieces in which they tell a reader the topic or the name of the book they are writing about and state an opinion or preference about the topic or book (e.g., My favorite book is . . .).
W.K.2 *Page 20*	Use a combination of drawing, dictating, and writing to compose informative/explanatory texts in which they name what they are writing about and supply some information about the topic.
W.K.3 *Pages 30, 32*	Use a combination of drawing, dictating, and writing to narrate a single event or several loosely linked events, tell about the events in the order in which they occurred, and provide a reaction to what happened.

CCSS ELA - Writing	
W.K.8 *Pages 6, 8*	With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.

CCSS ELA - Speaking and Listening	
SL.K.1 *Pages 3, 5, 6, 8, 9, 12, 13, 16, 20, 21, 24, 26, 30, 32*	Participate in collaborative conversations with diverse partners about kindergarten topics and texts with peers and adults in small and larger groups.
SL.K.2 *Pages 3, 8, 12, 16, 18, 21, 24, 30*	Confirm understanding of a text read aloud or information presented orally or through other media by asking and answering questions about key details and requesting clarification if something is not understood.
SL.K.3 *Pages 3, 8, 12, 13, 16, 30*	Ask and answer questions in order to seek help, get information, or clarify something that is not understood.
SL.K.5 *Pages 3, 5, 6, 26, 30, 32*	Add drawings or other visual displays to descriptions as desired to provide additional detail.
SL.K.6 *Pages 3, 5, 12, 16, 21, 24, 26, 30, 32*	Speak audibly and express thoughts, feelings, and ideas clearly.

CCSS ELA - Language	
L.K.1 *Pages 3, 5, 6, 8, 12, 13, 20, 24, 26, 30, 32*	Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
L.K.4 *Pages 5, 6, 24*	Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on kindergarten reading and content.
L.K.5 *Pages 3, 8, 9, 12, 20, 24, 30*	With guidance and support from adults, explore word relationships and nuances in word meanings.

CCSS ELA - Language	
L.K.6 *Pages 3, 6, 8, 9, 12, 13, 16, 18, 20, 21, 24, 26, 32*	Use words and phrases acquired through conversations, reading and being read to, and responding to texts.

National Core Arts Anchor Standards	
Anchor Standard 1 *Pages 3, 20, 30, 32*	Generate and conceptualize artistic ideas and work.
Anchor Standard 2 *Pages 30, 32*	Organize and develop artistic ideas and work.
Anchor Standard 6 *Page 30*	Convey meaning through the presentation of artistic work.
Anchor Standard 7 *Pages 30, 32*	Perceive and analyze artistic work.

C3 Framework for Social Studies Standards	
D2.Civ.2.K-2 *Pages 12, 20*	Explain how all people, not just official leaders, play important roles in a community.
D2.Civ.9.K-2 *Pages 21, 24*	Follow agreed-upon rules for discussions while responding attentively to others when addressing ideas and making decisions as a group.
D2.Geo.5.K-2 *Page 3*	Describe how human activities affect the cultural and environmental characteristics of places or regions.
D2.Geo.10.K-2 *Page 13*	Describe changes in the physical and cultural characteristics of various world regions.

C3 Framework for Social Studies Standards	
D3.2.K-2 *Page 24*	Evaluate a source by distinguishing between fact and opinion.
D4.2.K-2 *Page 24*	Construct explanations using correct sequence and relevant information.

SEL Competencies	
Relationship Skills *Pages 3, 5, 8, 9, 12, 13, 16, 20, 21, 24, 26, 30, 32*	• Communicating effectively • Developing positive relationships • Practicing teamwork and collaborative problem-solving • Resolving conflicts constructively Students collaborate in pairs, small groups, and whole-class discussions to share and present their ideas, and practice respectful academic dialogue.
Responsible Decision-Making *Pages 3, 6, 8, 9, 12, 13, 16, 18, 20, 21, 24, 26, 30, 32*	• Demonstrating curiosity and open-mindedness • Learning how to make a reasoned judgment after analyzing information, data, and facts • Identifying solutions for personal and social problems Students analyze evidence, evaluate information, make choices based on evidence, and justify decisions using data.
Self-Awareness *Pages 3, 6, 8, 9, 12, 13, 18, 20, 30*	• Experiencing self-efficacy • Having a growth mindset • Developing interests and a sense of purpose By engaging in productive struggle and successfully completing challenging tasks, students strengthen their self-confidence and develop self-efficacy. Exposure to real-world careers through authentic, context-based tasks helps students discover their interests and understand the purpose behind their learning.

SEL Competencies	
Self-Management *Pages 3, 5, 6, 8, 9, 12, 13, 16, 20, 21, 26, 30, 32*	• Managing one's emotions • Exhibiting self-discipline and self-motivation • Using planning and organizational skills • Demonstrating personal and collective agency By engaging in structured, multi-step tasks that require planning, attention, and follow-through, students build self-management skills and develop greater independence and agency in their learning.
Social Awareness *Page 26*	• Taking others' perspectives By giving and receiving feedback, students learn how to consider others' perspectives and respond thoughtfully to different viewpoints.

Context fuels curiosity, curiosity sparks connections, and **YOU** have the power to turn connections into purposeful learning.

Dr. Ellie Honardoost
Founder, InnovEd

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Questions or Technical Issues?

We are here to help!

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At InnovEd, we are committed to building instructional coherence across classrooms through shared practices that support intentional teaching and learning. We believe high-quality education should have no boundaries, and that high quality instructional practices are what make that possible.

We design learning experiences that transform any space into an environment where students think, explore, and make sense of ideas. Each lesson invites curiosity, hands-on discovery, and meaningful engagement, while remaining grounded in academic rigor and aligned to state standards.

Our approach provides educators with a clear roadmap for modeling instruction and designing learning experiences with intention. Through shared structures and practices, we support teachers and administrators in creating purposeful learning, giving students ownership of the thinking, and guiding their growth as they develop understanding.

We are guided by a simple belief: when educators are supported in their practice, they thrive. When educators thrive, students thrive!

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TH-K-IWC-01