

KINDERGARTEN

THE WONDERS OF WINTER: UNIT 4

CONCEPTS AND ENDURING UNDERSTANDINGS:

Unit: The Wonders of Winter

Time Frame: Three Weeks

Key Concepts: temperature, meteorologist, winter, properties of water, dormant tree, temperature change, five senses, Engineering Design Process

ESSENTIAL QUESTION: How do changes in winter affect our world?

Great Idea: Temperature and weather change in winter, which can be experienced through the five senses. Various regions experience winter in different ways. Meteorologists predict and report winter temperature and climate changes. People use this information in order to prepare for the winter season. Due to colder temperatures, all three states of water can be observed during winter.

GUIDING QUESTIONS:

- 1. What is winter and when does it occur?**
 - Identify seasonal changes of winter.
 - Dramatize how earth's position determines the seasons.
 - Utilize meteorologist's tools and resources to determine winter weather patterns.
 - Utilize the five senses to describe winter.
- 2. What are similarities and differences between fall and winter?**
 - Compare and contrast the seasons of winter and fall.
 - Define and create a dormant tree.
- 3. How does temperature affect the properties of water?**
 - Examine and create snowflakes.
 - Identify the properties of water.
 - Apply the Engineering Design Process to demonstrate ways to change the properties of water.
- 4. How do people adapt to winter weather?**
 - Compare regional winter weather patterns for winter.
 - Investigate mittens and gloves to determine which retains more heat.

Lesson Sequence

Students will:

1. Identify seasonal changes of winter.
2. Compare and contrast the seasons of winter and fall.
3. Dramatize how earth's position determines the seasons.
4. Define and create a dormant tree.
5. Utilize meteorologist's tools and resources to determine winter weather patterns.
6. Compare regional winter weather patterns.
7. Identify the properties of water.
8. Apply the Engineering Design Process to demonstrate ways to change the properties of water. (Two days)
9. Examine and create snowflakes.
10. Investigate mittens and gloves to determine which retains more heat.
11. Utilize the five senses to describe winter. (Two days)
12. Write and illustrate two facts that describe how changes in winter affect our world.

CONTENT STANDARDS:

Next Generation Science Standards
K. Earth's Systems https://www.nextgenscience.org/dci-arrangement/k-ess2-earths-systems
K-ESS2-1. Use and share observations of local weather conditions to describe patterns over time.
K-ESS2-2. Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs.
K. Earth and Human Activity https://www.nextgenscience.org/dci-arrangement/k-ess3-earth-and-human-activity
K-ESS3-1. Use a model to represent the relationship between the needs of different plants and animals (including humans) and the places they live.
K-ESS3-2. Ask questions to obtain information about the purpose of weather forecasting to prepare for, and respond to, severe weather.*
K. Weather and Climate K.Weather and Climate Next Generation Science Standards (nextgenscience.org)
K-PS3-1. Make observations to determine the effect of sunlight on Earth's surface.
K. From Molecules to Organisms: Structures and Processes https://www.nextgenscience.org/dci-arrangement/k-ls1-molecules-organisms-structures-and-processes
K-LS1-1. Use observations to describe patterns of what plants and animals (including humans) need to survive.

Social Studies

https://marylandpublicschools.org/about/Documents/DCAA/SocialStudies/Framework/Kinder_garten.pdf

2.0 Peoples of the Nation and World: Students will understand how people in Maryland, the United States and around the world are alike and different.

A.1.a. Use experiences, such as class trips, classroom visitors, stories, and electronic media, to give examples of different choices people make about meeting their human needs for food, clothing, shelter, and other commonalities, such as recreation, stories, and music.

C.1.a. Identify, discuss, and demonstrate appropriate social skills, such as listening to the speaker, taking turns, settling disagreements, and reaching compromise at home and in school.

3.0 Geography: Students will use geographic concepts and processes to understand location and its relationship to human activities.

A.1.c. Identify a location by using terms such as near-far, above-below, and here-there.

A.1.d. Identify pictures and photographs that represent places on a map such as a playground and a fire station.

D.1.a. Identify ways people adapt to the environment, such as wearing clothing that is appropriate to the weather.

6.0 Social Studies Skills and Processes: Students shall use reading, writing, and thinking processes and skills to gain knowledge and understanding of political, historical, and current events using chronological and spatial thinking, economic reasoning, and historical interpretation, by framing and evaluating questions from primary and secondary sources.

A.1.a. Acquire new vocabulary through listening to and reading a variety of grade-appropriate print and non-print sources.

A.1.b. Discuss words and word meanings as they are encountered in texts, instruction, and conversation.

A.1.c. Make connections to prior knowledge and new vocabulary by listening, reading, and responding to a variety of texts.

D.2.a. Engage in field work that relates to the topic/situation/ problem being studied and gather data.

D.2.b. Engage in field work that relates to the topic/situation/ problem being studied and make and record observations.

G.1.a. Present social studies information in a variety ways, such as plays, skits, posters, songs, poems, murals, and oral presentations.

G.1.b. Plan and engage in school and community events, such as a mock election, playground clean-up, writing letters to community officials, and fund-raising for a cause.

Reading English Language Arts

https://www.marylandpublicschools.org/programs/Documents/ELA/Standards/Grades_PK_K_MCCR_ELA%20Standards.pdf

Reading: Literature

Key Ideas and Details

RL.K.1. With prompting and support, ask and answer questions about key details in a text.

RL.K.3. With prompting and support, identify characters, settings, and major events in a story.

RL.K.4. Ask and answer questions about unknown words in a text.

RL.K.7. 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).
Craft and Structure
RL.K.4. Ask and answer questions about unknown words in a text.
RL.K.5. Recognize common types of texts (e.g., storybooks, poems).
Integration of Knowledge and Ideas
RL.K.9. With prompting and support, compare and contrast the adventures and experiences of characters in familiar stories.
Range of Reading and Level of Text Complexity
RL.K.10. Actively engage in group reading activities with purpose and understanding.
Reading: Informational Text
Key Ideas and Details
RI.K.1. With prompting and support, ask and answer questions about key details in a text.
RI.K.2. With prompting and support, identify the main topic and retell key details of a text.
RI.K.3. Analyze how and why individuals, events, and ideas develop and interact over the course of text.
Craft and Structure
RI.K.4. Ask and answer questions about unknown words in a text.
Integration of Knowledge and Ideas
RI.K.7. Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.
Range of Reading and Level of Text Complexity
RI.K.10. Read and comprehend complex literary and informational texts independently and proficiently.
Reading: Foundational Skills
Print Concepts
RF.K.1.a. Follow words from left to right, top to bottom, and page by page.
Writing
Texts Types and Purposes
W.K.2. 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.
Research to Build and Present Knowledge
W.K.8. With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.
Speaking and Listening
Comprehensions and Collaboration
SL.K.1.a. Follow agreed-upon rules for discussions (e.g., listening to others and taking turns speaking about the topics and text under discussion).
SL.K.1.b. Continue a conversation through multiple exchanges.
SL.K.2. Confirm understanding of 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. Ask and answer questions in order to seek help, get information, or clarify something that is not understood.

Presentations of Knowledge and Ideas
SL.K.4. Describe familiar people, places, things, and events and, with prompting and support, provide additional detail.
SL.K.5. Add drawings or other visual displays to descriptions as desired to provide additional details.
SL.K.6. Speak audibly and express thoughts, feelings, and ideas clearly.
Language
Conventions of Standard English
L.K.1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
L.K.2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
Vocabulary Acquisition and Use
L.K.5.a. Sort common objects into categories (e.g., shapes, foods) to gain a sense of the concepts the categories represent.
L.K.5.c. Identify real-life connections between words and their use (e.g., note places at school that are colorful).
L.K.6. Use words and phrases acquired through conversations, reading and being read to, and responding to texts.

Health
https://marylandpublicschools.org/about/Documents/DCAA/Health/Health_Education_Framework_July_2022.pdf
Standard 1.0 Mental and Emotional Health
A.1.a. Demonstrate positive communication among peers.
E.1.a. Identify character traits contributing to your uniqueness.
E.1.b. Identify actions to make a friend.
Physical Education
https://www.marylandpublicschools.org/about/Documents/DCAA/PE/MDPEFramework.pdf
Standard 6.0 Social Psychological Principles
C.1.a. Imitate socially acceptable behaviors of cooperation, respect, and responsibility to interact positively with others.

Visual Arts
https://www.marylandpublicschools.org/programs/Documents/Fine-Arts/Visual+Art+Standards+Grades+P-12.pdf
Creative Expression and Production
3.1.c. Create artworks that explore the uses of color, line, shape, and texture to express ideas and feelings.



Dear Families,

We are beginning a new social studies and science unit called *The Wonders of Winter*. In this unit, your child will learn how weather changes in winter and how various regions experience winter. Meteorologists predict and report winter temperature and climate changes. People use this information to prepare for the winter season. Due to colder temperatures, all three states of water can be observed during winter.

Here are some ideas you can do to enrich your child during this unit:

- Keep a calendar tracking what time the sun sets:
 - Observe how the sunset is occurring earlier.
 - Discuss how your evening activities change as a result of the sunset.
- Explore snow and ice.
 - Make a list of activities you do in the snow.
 - Bring two bowls of snow into the house, put one in the freezer and one on the table. Observe and record what happens to each bowl of snow.
 - Set two ice cubes on a plate, put salt on one and observe what happens.
- Take a winter walk with your child to discuss seasonal changes.
 - Collect winter artifacts.
- Review the traditions in your family that occur during winter.
 - Discuss what holidays you celebrate and holidays other people celebrate.
 - Mark special activities that relate to your winter traditions on.
- Take a trip to the library to explore winter literature.
 - Find non-fiction and fiction selections that cover winter topics.
- Note how businesses change during the winter season, pay attention to new products and decorations.

Please enjoy the winter season and thank you for your partnership in learning.

Your Child's Kindergarten Teacher,