**CTSC/Yonkers SMART Start 2021-22**
**School Name:**
**Teacher Designer Names: Callace, Dominguez & Moran**

**Name of Project: Weather**
**Grade: Kindergarten –**

**Big Idea: Severe Weather**

**Unit #:**
**Design Date Start: 11/20/2021**
**Est. Launch Date: April**
**Duration of Project/Unit:**

## STAGE 1: DESIRED RESULTS

| | |
|---|---|
| **K-ESS3-2** -Weather forecasting provides information about approaching storms and severe weather that we can be prepared and stay safe | **K-ESS3-2** -Weather forecasting provides information about approaching storms and severe weather that we can be prepared and stay safe |

### Established Goals (Standards, Performance Indicators, Learning Goals):

*choose relevant standards to unit/project plan timing and learning goals; do not need to use all disciplines below.
** unpack into SWK and SWBAT under identified standards as this will lead to aligned assessment design

Standards Unpacking Examples

**Science**: Circle of Seasons

**Keys Ideas**

- **K-ESS3-2** -Weather forecasting provides information about approaching storms and severe weather that we can be prepared and stay safe
- **K-ESS3-2, K-ESS2-1** - One of the ways to forecast weather is to pay close attention to the sky, cloud, and wind.
- **K-ESS2-1** - The weather is always changing around us. They are different factors that affect the weather.

**Math:**

*Counting and Cardinality*

- **K.CC.3** – Represent a number of objects with a written numeral
- **K.CC.6** – Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group.

*Operations and Algebraic Thinking*

- **K.OA.2** – Solve addition and subtraction within 10 by using objects or drawings to represent the problem.

**ELA**:

- **RI.K.2** – Listen and retell key details.
- **RI.K.9** - Listen to identify cause and effect.
- **W.K.1** – Use a combination of drawings, dictating, and writing to compose opinion pieces in which they tell a reader the topic they are writing about and state an opinion about the topic.

### NHSS Standards:

Performance Indicators: 8.5a, 8.5b, 8.5c

### Science Standards:

**Social Studies Standards:**
**NYS SS: 1, 3, 5**
**Themes: SOC, GOV, ECO,TECH**

**Mathematics Standards:**

**ELA Standards:**
STANDARD 2: Determine central ideas or themes of a text and analyze their development; summarize the key supporting details and ideas.
STANDARD 6: Assess how point of view or purpose shapes the content and style of a text, drawing on a wide range of global and diverse texts
STANDARD 7: Integrate and evaluate content presented in diverse media and formats, including across multiple texts.
STANDARD 8: Delineate and evaluate the argument and specific claims in a text, including the validity of the reasoning as well as the relevance and sufficiency of the evidence.

**Technology Standards:**

**Social Justice Standards:**

**Links to Standards/Reference Frameworks:**
**NGSS**, **NGSS by DCI** **Nat'l C3 SS Framework**, **NYS K-8 SS Standards**, **Common Core**, **ISTE**, **Learning for Justice Social Justice Standards**, **CASEL SEL Framework**, **NYS CS and Digital Fluency**

**Unpacking Standards Verbs**

| **Students will know (SWK):** | **Students will be able to do (SWBAT):** |
|---|---|
| **Different kinds of weather**<br>**Preparation for all forms of severe weather**<br>**Characteristics of weather**<br>**Weather prediction**<br>**Seasonal weather patterns** | **Write and illustrate how to get ready for severe weather**<br>**Will illustrate and describe the different kinds of weather**<br>**Sequence pictures of seasonal weather** |

| | |
|---|---|
| | |

## STAGE 2: EVIDENCE & ASSESSMENTS:

**Performance Task Narrative:**

**Goal:** Model or draw different types of weather and how the weather changes

**Role:** Students are weather reporters for the different changing seasons.

**Audience:** The school community and its surrounding area.

**Situation:** The weather is consistently changing from day, month and season which affects our daily attire. Create a chart to observe the patterns of the day, month and season.

**Product(s):** *Clarify what the students will create and why they will create it.*

- Students will draw pictures showing different weather conditions, label pictures, and present to them class
- Students will create their own calendar to predict the weather forecast for the week and/or month.

**Standards (criteria for success):** *Provide students with a clear picture of success. Identify specific standards for success.*

- ❑ Using the information gathered, students will be able to discuss the changes in weather

- ❑ Based on information charted, students will discuss how they dress for each weather condition.
- ❑ Discuss how weather reports, such as sun, rain, snow and temperature to prepare us for the changing climate day to day
- ❑ Participate in discussion on how individuals would previously prepare for different climate changes without current technology. ie: radio, television, satellites, or computers, etc.

**Other Evidence/Assessments:**

- Students can give daily weather reports as meteorologists by describing weather in detail and how they would prepare and/or dress for that day.
- Students will use technology to see weather forecast of and report on it and compare it to their own predictions as a meteorologist.
- Students can compare their weather climate chart with their classmates and create a classroom chart of their overall findings

## STAGE 3: THE LEARNING PLAN:

## Learning Activities

(potential layout below. Can be daily, divided by periods, or even using the Engineering Design Process to divide into stages such as Ask, Imagine, Plan, Create, Improve)

**Week 1**

**Learning Goals:**
**How do we get information about the weather?**
**Students will find the local weather forecast via the computer or media.**

**Learning Events:**
**Explain to students that people study the weather in order to give others the daily forecast for their area. Ask students to look outside and predict what the weather will be the rest of the day and night.**

**Formative Assessments:**
**Student's prediction will be compared to actual weather outcome for the day and night.**

**Linguistic Supports for Multilingual Learners:**
**Multilingual learners will be provided realia for a more visual and tactile support; modify reading, modify questions and academic vocabulary can be translated into their native language where needed; vocabulary will be created with picture cards.**

**Modifications for Individual Students and/or Student Groups:**
**Students will be placed in small groups, provided with additional hands on materials for further clarification.**

**Notes/Resources:**
**Kindergarten Mystery Science, Benchmark Reading Program, technology, media**

**Week 2**

**Learning Goals:**
**Students will make a weather map of Yonkers, New York.**

**Learning Events:**
**Show students a weather map for Yonkers, New York. Point out map key and symbols**

**and how to use them. Ask students to discuss how this information can help people plan their day. What do I wear in different types of weather?**

**Formative Assessments:**
**Create a map of the day's weather in Yonkers, New York and take turns recording the weather forecast.**

**Linguistic Supports for Multilingual Learners:**
**Multilingual learners will be provided realia for more visual and tactile support; modify reading, modify questions and academic vocabulary can be translated into their native language where needed; vocabulary will be created with picture cards.**

**Modifications for Individual Students and/or Student Groups:**
**Students will be grouped heterogeneously and be provided hands on materials for further clarification.**

**Notes/Resources:**
**Mystery Science, Social Studies – PNW BOCES, technology, media**
**Weather Detective text from Mystery Science**

**Week 3**

**Learning Goals:**
**Smores reacting to different kinds of weather (sun, shade).**

**Learning Events:**
**Students will predict what will happen to a smore in the sun and shade. They will make predictions by drawing what the smore looks like now and what it will look like after being exposed to sun or shade. Their predictions will be graphed (bar graph).**

**Formative Assessments:**
**Students will pair 5 things related to weather which some are in the sun and some are in the shade; pair sorting (worksheet)**

**Linguistic Supports for Multilingual Learners:**
**Multilingual learners will be provided realia for visual and tactile support; modify reading, modify questions and academic vocabulary can be translated into their native language where needed; vocabulary will be created with picture cards.**

**Modifications for Individual Students and/or Student Groups:**
**Students will be placed in small groups, provided with additional hands on materials for further clarification.**

**Notes/Resources:**
**Kindergarten Mystery Science, Benchmark Reading program, technology, media**

**Week 4**

**Learning Goals:**
**Introducing Severe Weather, Have you ever watched a storm? How do you get ready for a storm?**
**Impacts of different types of weather**

**Learning Events:**

1. **Watch a video; make Breeze Buddy (pipe cleaner, construction paper, tissue paper) which tells you what the wind does**
2. **Tornado in a Bottle activity**
3. **Cloud in Action experiment with cotton balls and water; predicting, counting, graphing**

**Formative Assessments:**

1. **Breeze Buddy – draw a picture when a soft when blows vs. when a strong wind blows**
2. **Tornado in a Bottle (Response Sheet) - draw predictions using a diagram of the bottle and students will draw another picture of the actual outcome**

**Linguistic Supports for Multilingual Learners:**
**Multilingual leaners will be provided realia for a more visual and tactile support; modify reading, modify questions and academic vocabulary can be translated into their native language where needed; vocabulary will be created with picture cards.**

**Modifications for Individual Students and/or Student Groups:**
**Students will be placed in small groups, provided with additional hands on materials for further clarification.**

**Notes/Resources:**
**Kindergarten Mystery Science, Benchmark Reading program, technology, media**
**Text: The Wind Blew by Pat Hutchins**