T&L 815

Thematic Unit/Weather

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Summary:

This unit is designed to familiarize students with the concepts, vocabulary, and measurement of weather and its affect on their lives. Students will have the opportunity to observe, measure, document, and explore different kinds of weather through interactive games, internet usage, enriched vocabulary lessons, literature, and crafts.

Unit Objectives:

- The learner will be able to observe the weather outside and place icons on a class calendar to reflect the day’s weather.

- The learner will be able to use the calendar to count days of sun/rain/clouds and show an understanding of beginning fractions/percentages, i.e. 6 days out of 30 were sunny.

- The learner will be able to demonstrate understanding of weather vocabulary words and match them to a corresponding picture, as well as through the use of written language.

- The learner will use the internet to forecast the week’s weather, and use it as a source of information.

- The learner will be able to state/show ways that the weather affects their daily lives (like what kind of clothes are worn for what weather, what activities are changed due to weather, etc.). Students will share weather memories from their country of origin and how it affected the way they dressed, and how that compares to the US.

- The learner will learn and understand the concepts/attributes of weather, storms and climate through the use of literature, videos, songs, and games.

- The student will be able to identify units of measurement used in reference to weather.
**Introductory Lesson:** Daily Weather Watch

**Procedure:**

**Lesson #1** - The teacher puts up a large calendar with the current month’s days, and a bag full of icons that show sunny, windy, cloudy, rainy, cold, snowy, or stormy. The teacher reads a simple book on weather as part of calendar time the first day. The teacher introduces the words by showing the icon and saying the word that it represents. Each day the students are encouraged to look outside and decide what icon best represents the weather for that day; the icon is then placed on the corresponding calendar date.

**Lesson #2** - At the end of each month, the class will count the days that were sunny, rainy, windy etc. and together with their teacher, they will make a bar graph displaying the month’s documented weather.

**Lesson #3** - Teacher uses the tune of ‘If you’re happy and you know it’ to teach/repeat the basic weather words i.e.- “If it’s windy and you know it clap your hands…”

**Lesson #4** - Teacher makes a ‘memory game’ made from icons with Boardmaker software, these can be made bilingual with the software. This game can be left in the back of the room for kids to play when they have free time, or the teacher could make it a workstation.

**Lesson Objectives:**

- The learners will become familiar with basic weather words, observation and documentation of daily weather.
- The learners will demonstrate the ability to count the number of days each month that were sunny/rainy/windy/etc.
- The learner will become familiar with the concept of graphing data taken from the classroom weather calendar.

**Cultural/Language Skills:**

- Label calendar icons in student’s language of origin
- Have students generate memories of weather from their country of origin.
- Have children draw a picture of each icon and label it in English and their language of origin.
**ESL Standards:**
Goal 2 – Standard 2 to use English to achieve academically in all content areas, representing information visually and interpreting information presented visually.
  - Goal 1 – Standard 2 to use English to share cultural traditions and values.

**Materials:**

- Large classroom calendar with numbers
- Icons that depict (sunny/rainy/windy/cloudy/snowy/stormy)
- ‘Weather’ by Pamela Chanko and Daniel Moreton
- Any of the weather books in the reference section of this unit
- **Boardmaker** for windows software (not necessary but wonderful)
Vocabulary Lessons: Weather Words

Procedure:

Lesson #1 -Weather Videos: The teacher shows one 30-minute video each day or each week. After each video, the teacher will ask probing/open-ended questions to check for comprehension of vocabulary/concepts presented in each video.

Lesson #2 -Weather Vocabulary Picture Matching Game: Teacher uses individual pictures of weather words/flashcards and individual typed weather words. The teacher passes out the pictures randomly, and then passes out the words randomly and the students must then match the picture the correct word held by another student. Students are encouraged to use English to ask for help from their peers if they do not know the word or picture that they are holding.

Lesson #3 - Word Matching by Description: The teacher gives each student the worksheet and places the same worksheet transparency on the overhead projector. As the teacher reads the descriptions, he/she randomly picks a student to give a ‘guess’ answer and then the students can either agree or disagree. If someone disagrees, they can give another answer and a reason why, the rest of the class can then vote on the choice for the correct answer.

Lesson #4 - Associating by Functions and Attributes: The teacher gives each child a worksheet on associations, and puts a matching transparency on the overhead projector. The teacher then picks children randomly to read the first item/direction and choose an answer. The other students can then agree or disagree by a show of hands.

Lesson #5 - Classifying: The teacher puts a ‘sentence strip’ on the board that says: Cold Weather Windy Weather Wet Weather

The teacher passes out the picture cards used in vocabulary lesson #2. The students then take turns taking their picture up to the board, showing it to the class, labeling it, and placing it on the board under the correct category/classification (using blue tack).

Lesson Objectives:

- The learner will be able to demonstrate understanding of weather vocabulary words and match them to a corresponding picture, as well as through the use of written language.
- The learner will learn and understand the concepts/attributes of weather, storms and climate through the use of literature, videos, songs, and games.
**Cultural/Language Skills:**  Learning the vocabulary words relating to weather using contextualized and de-contextualized settings through activities such as classification, association, word matching and games.

**ESL Standards:**
Goal 1, Standard 1: Sharing and requesting information
Goal 2, Standard 1: Asking and answering questions
Goal 2, Standard 2: Interpreting information presented visually
Goal 1, Standard 3: Learning and using language chunks
Goal 2, Standard 3: Actively connecting new information to information previously learned

**Materials:**

Vocabulary To Go, (weather unit): Linguisystems 1987
1-800-851-8237
Measurement Lesson: Ways to Measure the Weather

Lesson #1: Temperature is measured in degrees. The teacher reminds the students of the vocabulary lesson where temperature and degrees were taught. The teacher brings to class an outside thermometer, and shows the students where she is going to hang it just outside the classroom door. Together the class looks at the numbers/markings on the thermometer, and then they check the initial reading as they hang the thermometer outside. Each day, two students go outside and ‘read’ the number on the thermometer one reads the number and the other records the number on a piece of paper. The teacher then helps the students record the number on a large bar graph hung in the classroom. The class then can chart and record temperature readings for as long as the teacher can add to the graph. This would be a good place to discuss how people dress depending on the weather. Each child could give an example of clothes they wear to go swimming, or go sled riding, or go out in the rain.

Lesson #2: Rain is measured in inches- the teacher brings in a rain gauge and explains how it measures rainfall by inches. She then hangs it outside the classroom, close to where the temperature gauge is hung; the classroom makes note of how much or how little rain is in the gauge when it is hung. After there is some rainfall, 2 students are randomly chosen to go out and mark down the amount of rain that fell, or what the gauge reads. This too can be made into a bar graph, or the students can discuss what happens when there is not enough rain or too much.

Lesson #3: Wind is measured in miles per hour. The teacher brings in a wind vane; she explains how the top of a wind vane measures the wind, as the wind blows the little cups on the top move faster and faster. The bottom part of the wind vane shows the direction from which the wind is coming. This is a good place to introduce N-S-E-W directions, and show the kids on a map where the wind is coming from that day. On windy days the teacher can make a point to show the children how fast the vane is moving. This is more complex than measuring temperature, so just being aware of wind movement would be good.

Lesson Objectives:

- The learner will be able to state how temperature, wind, and rain are measured.
- The learner will be able to record temperatures and add the data to an on going bar graph.
- The learner will be able to state how too little rain or too much rain can affect the daily lives of a community.
• The learner will be able to state how people change what they wear and do to fit the weather.

Cultural/ Language Skills:

• Recording visual data accurately
• Describing how too little or too much rain affects a community
• Describing clothing choices based on weather

ESL Standards:

Goal 1, Standard 1: Sharing and requesting information
Goal 2, Standard 1: Asking and answering questions
Goal 2, Standard 2: Interpreting information presented visually
Goal 2, Standard 3: Actively connecting new information to information previously learned

Materials:

Outside Thermometer from any hardware store (Preferably the ones with big numbers on them so the kids can read them)
Rain Gauge from any hardware store
Wind Vane from any hardware store
Internet Lessons

Website: [http://teacher.scholastic.com/activities/wwatch](http://teacher.scholastic.com/activities/wwatch)

This is an internet-based field trip for PreK-3 grades. It has a guide for the teacher. It is very much like a scavenger hunt set up where the students look for information on various websites that are age and content appropriate. Attached is an example of the virtual hurricane field trip.

Website: [http://teacher.scholastic.com/fieldtrp/science/weather.htm](http://teacher.scholastic.com/fieldtrp/science/weather.htm)

Wild Weather on the Web: This is a virtual tour of all weather phenomena. It lists web pages for which to launch your journey. It also places an emphasis on forecasting. The web pages are more in tune with the weather of our region.

Cultural/Language Skills:
- Partners work to complete the virtual tour, parings to include a recorder and a web navigator. Discuss correctness of information.
- Skimming and scanning for information on specific topics. Locating information quickly and efficiently for note taking purposes.

ESL Standards:
- Goal 2 Standard 2 to use English to achieve academically in all content areas: Students will use English to obtain, process, construct, and provide subject matter information in spoken and written form.
- Goal 2 Standard 3 to use English to achieve academically in all content areas: Students will use appropriate learning strategies to construct and apply academic knowledge.
Reference Materials

Trade Books

We Play on a Rainy Day by Angela Shelf Medaris
Thunder and Lightning by Wendy Pfeffer
Tornadoes by Brain Cassie
Weather by Pamela Chanko and Daniel Moreton
Water by Susan Canizares and Pamela Chanko
Storms by Susan Canizares and Betsey Chessen
Sun by Susan Canizares and Daniel Moreton
Wind by Susan Canizares and Betsey Chessen
Do Tornadoes Really Twist? Questions and Answers About Tornadoes and Hurricanes
   by Melvin and Gilda Berger
Thunder Cake by Patricia Polacco
Cloudy with a Chance of Meatballs by Judi Barrett
The Cloud Book by Tomie dePaola
Why Does it Thunder and Lightning? By Chris Arvetis
Hurricane by Corinne Demas
Geoffrey Groundhog Predicts the Weather by Bruce Koscielniak
Heat Wave at Mud Flats by James Stevenson
Snow is Falling by Franklyn Branley
Rain by Kristin Ward
Tornado Alert by Franklyn Branley
Feel the Wind by Arthur Dorros
Rain by Robert Kalan
Weather by Jan Pienkowski
Weather by Martha Ryan
Weather by Julian May
Weather (CD ROM and book) by World Book

Videos

Weather by Britannica (1989)
All About Wind and Clouds by Schlessinger (2000)
Weather Watchers by Delta Education (1988)

Teacher Resource Books

Reading Success Mini-Books Sight Words: 20 Interactive Mini-Books That Help Every Child Get a Great Start in Reading (Scholastic,1999) by Mary Beth Spann

20 Rebus Mini-Books for Emergent Readers (Scholastic,2002) by Carol Pugliano-Martin