



# WEATHER

## BIG IDEA

Children are eager to explore and describe the world around them, including changes in the weather and seasons. Children predict and describe weather types, select appropriate clothing, and explore weather-related safety issues.

### Content objective(s):

The child will identify the sun and describe the light the sun provides.

#### Materials needed:

- ◆ Unit book: *A Sunny Day*, by Robin Nelson
- ◆ Coloring page (Handout 1)
- ◆ Crayons
- ◆ A water hose
- ◆ Optional: flashlight, black tape, clear cup or bottle of water, white paper



#### Lesson vocabulary:

- ◆ protect—protege
- ◆ rainbow—arco iris
- ◆ sun burn—quemado por el sol
- ◆ shadow—sombra
- ◆ shady—sombreado
- ◆ sun screen lotion—loción para protección solar

#### Texas Prekindergarten Guidelines (Revised) domains addressed:

##### Language and Communication:

II.B.2. Child engages in conversation in appropriate ways.

##### Science:

VI.C.2. Child identifies, observes, and discusses objects in the sky.

VI.C.3. Child observes and describes what happens during changes in the earth and sky.

VI.D.2. Child practices good habits of personal health and hygiene.

##### Physical Development:

IX.B.1. Child shows control of tasks that require small-muscle strength and control.

## Activities:

### 1. The home educator models and demonstrates for the parent.



*We have been learning about weather. What kinds of weather do you remember? (Help the child by providing clues.) Which one is your favorite weather? (Accept any answer.) I love sunny days. Today we will be talking about sunny weather. I love sunny days because I get to play outside and sometimes I eat ice cream. Let's read a book about sunny days.*



Read the unit book, *A Sunny Day*, by Robin Nelson. Ask questions and discuss pictures throughout the story.

*What kind of things do you do on sunny days?*



After the child describes the activities that can take place on a sunny day, prompt him/her to reflect on his/her experiences while playing outside in the sun.

*Do you remember how it feels playing in the sun? (Pause) That's right, it feels hot. What makes you hot? (Pause) Yes, the sun makes you hot. The sun is like a big light that is shining on us during the day.*

Next discuss the importance of protection against the sun's harmful rays. Say,

*It is important to protect yourself from the sun because it can burn your skin. Protect means to take care of yourself and not let something hurt you. What happens when your skin gets very hot from the sun? (Pause) Yes, it can get red and burn. That hurts! When that happens we call it a sunburn.*

*Sunburn isn't a good thing. Have you ever had a sunburn? (Pause) How did it feel? (Pause) Do you know what we can do to protect our skin from the sun? (Pause) Sometimes people wear sunscreen lotion to protect their skin from the sun. Have you ever used sunscreen lotion? (Pause) When you put on lotion it helps protect you from getting sunburned.*

*What else could you do so that you won't get sunburned? (Prompt if necessary for the following options: Stay home until it is not too hot. Wear a hat. Stay in the shade.) Yes, we could stay in the shade. Shade is made by the shadows of large things like trees or buildings. Let's find some shade.*

With the parent and child, go outside and look for some shade. Then help the child determine which object (i.e., building, tree, etc.) is causing the shadow/shade.

*When you are hot on sunny days what can you do to cool down? (Pause) Yes! We could swim or get wet with the water hose when it is hot. I like to play with the water hose and make rainbows. Do you like rainbows? (Pause) Have you seen a rainbow when you play with the water hose? (Pause) Let's try to make one!*

(NOTE: These three actions should be practiced before going to the child's home. Be conscientious of water restrictions and conservation when conducting the activity.)

OPTION 1: If the day is sunny go outside and turn on the water hose. (Your back should be towards the sun.) Press on the end of the hose with your finger to create a mist and point the spray toward the sun to create a rainbow. Allow the child to try to make rainbow himself (this is easier if a spray nozzle is attached to the water hose).

OPTION 2: If the activity must be conducted inside, place a clear bottle or glass of water by a sunny window. Then place a piece of white paper next to the bottle of water lining them up so that the light shines through the bottle of water onto the white paper. The reflection of the rainbow can be seen on the paper.

OPTION 3: If there is no sun, fill a clear glass of water (almost to the top) and place it at the very edge of the counter in a dark kitchen. Place a sheet of plain white paper on the floor a few inches away from the counter. Put two pieces of black masking tape over the front of a flashlight so that the light comes out of a slit only. Shine this light across and down into the glass of water. You will see the rainbow on the white sheet of paper. If you can't see the rainbow, move the flashlight around until it appears. Say,

*The sun is light and when it goes through the water the light shines in the different colors of the rainbow.*

## 2. The parent works with the child.



Have the parent do the following activity to explore the concept of shadows. The parent asks the child,

*Do you know what I like to do when the sun is shining? (Pause) I like to play with my shadow. Do you know what a shadow is? (Pause) Do you have a shadow?*

The parent stands in the sun with the child and shows him/her their shadows, saying,

*See! Our bodies are blocking the light and making shadows. Lets move our bodies to see whether the shadows move. It is fun to play with your shadow!*

The parent plays and moves to help the child recognize his/her own body's shadow. If it is not a sunny day, this could also be done in a dark room under a light.

*The sun is like a big light and the light from the sun can be very hot.*

## 3. The child works with the parent's help.



Show the parent and child Handout 1 (a child in summer clothing). Ask the parent and child to work together to color the areas of the child in the picture that would need sunscreen (i.e., face, arms, legs). The parent should discuss with the child the importance of sunscreen to protect from sunburn. The parent can also help the child name other things that family members can do to protect themselves from the sun (wear hats, sun glasses, stay in the shade, etc.).

The parent and child can play a game to help reinforce the concept of sun and shade. The parent will shout out the word “shade” and the child will run to a shady area. The parent will then shout “sun” and the child will run to a sunny area. Continue until the child understands the concepts of sun and shade.

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#### 4. The child works independently as the parent and home educator watch for learning.

The home educator and the parent watch for the following:

- The child can explain the need for sunscreen.
- The child can differentiate between sunny and shady areas and describe why shady areas are good places to play.

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#### 5. The home educator summarizes the lesson.

Finish by reviewing the content objective and talking about what the family learned today.

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### Follow-up questions to deepen the child’s thinking:



1. *If you don’t have sunscreen, how can you protect yourself from the sun?*
2. *Why should we wear sunglasses on a sunny day?*
3. *What other things get burned on hot sunny days? (e.g., plants or other animals, soil)*
4. *Do we need the sun? (Pause) What would happen if we did not have the sun?*
5. *Who/What else needs the sun?*

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### Ways to extend on the lesson concepts:



1. Visit your local public library and check out the book, *One Hot Summer Day*, by Nina Crews. Read the book aloud to the child.



2. Use chalk to trace shadows outside and link to the concept of shade.



3. To reinforce the strength of the sun, place an object on black construction paper and leave them in the sun for a day or two. Then, remove the object and discuss how the sun affected the black paper.

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## Modifications:

### If the lesson activity is too hard—

1. Have the child compare the temperature of a sunny place and shady place by sitting in both areas for a short time.
2. Play the sun/shade game repeatedly in different places (park, grandma's house, etc.).

### If the lesson activity is too easy—

1. Study the changes made by the sun on the paper after more than two days.
2. Construct a tent or shelter to create a shady place to play.
3. Name the colors of the rainbow.
4. Have the child observe the shadows of familiar things at different times of the day or place a light bulb at different positions to create shadows of smaller things inside the house.

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# WEATHER (LESSON 3)

## PARENT PAGE

### What we are learning:

The child will identify the sun and describe the light the sun provides.

#### Words to know:

- ◆ protect—protege
- ◆ shadow—sombra
- ◆ rainbow—arco iris
- ◆ shady—sombreado
- ◆ sun burn—quemado por el sol
- ◆ sun screen lotion—loción para protección solar



### What to ask:

1. *If you don't have sunscreen, how can you protect yourself from the sun?*
2. *Why should we wear sunglasses on a sunny day?*
3. *What other things get burned on hot sunny days? (examples: plants or other animals, soil)*
4. *Do we need the sun? (Pause) What would happen if we did not have the sun?*
5. *Who or what else needs the sun?*

### What else to do:

1. Visit your local public library and check out the book, *One Hot Summer Day*, by Nina Crews. Read the book aloud to your child.
2. Use chalk to trace shadows outside and link to the concept of shade.
3. To reinforce the strength of the sun, place an object on black construction paper and leave them in the sun for a day or two. Then, remove the object and discuss how the sun affected the black paper.