



**First Grade**

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Visit [www.sunsafeschools.org](http://www.sunsafeschools.org) for continuous updates and resources relating to the Sunny Days, Healthy Ways Sun Safety Curriculum and skin cancer prevention for youth.

This curriculum has been designed around the principles of **project-based learning**. In project-based learning, students are provided with the major concepts of a subject area and are provided tools to conduct meaningful investigations of those concepts. The curriculum is broken down into four units and is organized so that students learn, assess, report, and recommend sun safety behaviors.

Throughout the curriculum, students will be working on an overarching project, the creation of life-size paper people. The lessons will build incrementally to teach students about sun safety procedures. By the end of Sunny Days, Healthy Ways, students will be able to see how small changes can make a big difference in protecting themselves from the sun.

The length of time for each lesson varies and depends on class involvement. The lessons build on one another and should be completed sequentially, with a design of one or two lessons per week. The curriculum is adaptable, though, and can be formatted to fit your class' needs and schedule

## **Importance of Teaching Sun Safety to Children**

Without the sun, life simply could not exist. However, the sun's rays also can be harmful. Overexposure to the sun's ultraviolet radiation (UV) can damage skin and eyes. Sun damage includes: sunburn, freckles, wrinkles, a tan, cataracts, blindness, precancerous skin conditions, and skin cancer.

**Skin cancer is by far the most common cancer in the United States** with more than three million new cases diagnosed each year. It has reached epidemic proportions.

There are two main types of skin cancer--**melanoma and non-melanoma**. Most skin cancers are non-melanoma. These types of skin cancer are not life threatening but can spread and disfigure and should be removed. Melanoma is much less common than non-melanoma skin cancer, but its incidence appears to be increasing. Melanoma can be fatal if not detected and treated early.

Some skin cancers appear to be influenced by heredity, but most are **caused by UV exposure, natural (from the sun) or artificial (from tanning lamps)**. Even though skin cancer most often develops in adulthood, its development may be related to our behavior as children. Scientists theorize that there are **two primary triggers for skin cancer: accumulated lifetime exposure to UV and severe sunburns**. The more time we spend in the sun or are exposed to UV over our lifetimes, the greater our risk of developing skin cancer. How does this relate to children? Kids play outdoors. **We get 25 percent of our lifetime sun exposure before age 18**. For this reason, children need to know how to "play safe in the sun" by finding shade, wearing cover-up clothing, and using sunscreen correctly.

Severe sunburns are insults to the skin and its cells. They can cause permanent damage to the skin's deeper layers. One or more severe sunburns before the age of 18 appear to significantly increase risk for developing melanoma later in life. Because children spend so much time outdoors, it is crucial to teach them skills and behaviors that will help prevent sunburn and overexposure to the sun's harmful rays.

Encouraging children to take charge of their health and control events in their lives helps build self-esteem. Recent studies have shown that building self-esteem from a young age is vital. For example, teaching students to practice sun safe health habits (e.g., finding and using shade, wearing a wide-brimmed hat, putting on sunscreen) allows them to take an active part in taking care of their bodies. This helps them feel that they are capable and in control. For younger children, the positive concept of sun safety is presented in the lessons rather than the potentially frightening or alarming concept of preventing skin cancer. In fact, skin cancer is not mentioned in any lessons in this unit. Sun safety is presented as a set of actions that school children of all ages have the power to put into play now to help keep their skin safe and healthy for a lifetime.

## **Supporting Literature**

The curriculum was developed using research and recommendations from the National Cancer Institute, the US Centers for Disease Control and Prevention, and the National Association of State Boards of Education.

### ***Sources are provided below for extended reading and literature review:***

Comprehensive Cancer Control: Engaging Schools and Education Partners in Sun Safety and Skin Cancer Prevention; Sun Safety for America's Youth Toolkit. [http://www.cdc.gov/cancer/skin/what\\_cdc\\_is\\_doing/toolkit.htm](http://www.cdc.gov/cancer/skin/what_cdc_is_doing/toolkit.htm)

Shade Planning for America's Schools  
[http://www.cdc.gov/cancer/skin/pdf/shade\\_planning.pdf](http://www.cdc.gov/cancer/skin/pdf/shade_planning.pdf)

What You Can Do  
[http://www.cdc.gov/cancer/skin/pdf/sunsafety\\_v0908.pdf](http://www.cdc.gov/cancer/skin/pdf/sunsafety_v0908.pdf)

Morbidity and Mortality Weekly Report; Guidelines for School Programs to Prevent Skin Cancer  
<http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5104a1.htm>

## **Journal articles:**

Townsend, J., et al., (2011). Targeting children through school-based education and policy strategies: Comprehensive cancer control activities in melanoma prevention. *Journal of the American Academy of Dermatology*, 65(5).

Buller D, Geller A, Cantor M, Buller MK, Rosseel K, Hufford D, Benjes L, Lew RA. Sun protection policies and environmental features in U.S. elementary schools. *Arch Dermatol* 2002; 138:771-774.

Buller DB, Buller MK, Reynolds KD. A survey of sun protection policy and education in secondary schools. *J Am Acad Dermatol* 2006; 54(3):427-432.

Reynolds KD, Buller DB, Yaroch AL, Maloy J, Cutter GR. Mediation of a middle school skin cancer prevention program. *Health Psychol Sep* 2006;25(5):616-625.

Yaroch AL, Reynolds KD, Buller DB, Geno CR, Maloy J. Validity and reliability of sun safety measures in middle school children. *Health Educ Behav* 2006;33:340-351.

## **Resources specific to teaching children about skin color and diversity:**

Husband, T. (2012). "I don't see color": Challenging assumptions about discussing race with young children. *Early Childhood Education Journal*, 39, 365-371.

<http://www.scholastic.com/teachers/article/teaching-quotdiversityquot-place-begin>

<http://www.youtube.com/watch?v=762tYvPdhel>

<http://www.leeandlow.com/p/teachers-race.mhtml>

<http://www.diversitycouncil.org/elActivities.shtml>


***Suggested children's books to supplement the lessons are included on the SDHW website.***

## **Common Core**

The Sunny Days, Healthy Ways curriculum has been adapted to meet Common Core educational standards for language arts and math. A table highlighting some of the standards that each unit meets can be found on the Sunny Days, Healthy Ways website.

## **Extensions and Adaptations**

### **Utilizing Technology**

The lessons have been created to be adapted to the needs of your classroom. The default preparation assumes that the class has access to certain technologies, such as computers, but there is an option to complete the units on paper instead. The instructions for the hard copy alternative are denoted with a pencil symbol: 

During the course of the unit, consider using a camera to document the process of going through the lessons. For example, create a before and after, or step by step transformation poster of the paper person. Document the transformation of the paper persons using digital photographs at each major alteration (addition of clothes, hats, shade structure, and sunscreen). Download photographs and insert them into slides. Help students to type in short descriptions of the sun safety actions taken at each phase in their creation. You could also print out the digital photographs and have students create a poster with the same information chronologically showing the transformation. You can use these pictures to review at the end of the unit and/or to share with other teachers and classrooms.

## **Adaptations**

Whenever needed, teachers can make modifications to match the ability level and appropriateness for the class. In some cases, it would be beneficial to make exercises partner-generated, rather than individual to aid students at different levels.

A forum may be made available on the Sunny Days, Healthy Ways website for teachers to share adaptations and other successes.

## **Supplies Needed**

A list of supplies needed for each unit is provided at the beginning of the respective lessons. To aid in preparation, a comprehensive supply list for the entire curriculum is below:

- Mirrors
- Chart paper
- Writing supplies
- Computer
  - Microsoft Excel or other graphing software
- Art Supplies
  - Markers
  - Crayons
- Especially purple and white
  - Construction paper
  - Plastic eyes
  - Yarn
  - Scarps of material
  - Pipe cleaners
  - Ribbon
  - Paper bags
  - Popsicle sticks
  - Paper Plates
  - Socks
- LCD projector or overhead
- Butcher paper
- Note cards or strips of white paper
- Notebook paper
- Teacher-prepared examples of C.J. wearing sun safe clothing and not sun safe clothing
- Photographs illustrating effects of sun on the skin
- Examples of safety clothing such as an apron, work gloves, oven mitts, rubber boots, swim goggles or a scuba mask.
- Hand writing paper
- Drawing supplies
- Audio download from the website or an MP3 player with sound file uploaded from the website to the device
- Headphones
- The following items are available for download on the website:
  - Rhyming Cards
  - Audio download of the poem
  - Poem Worksheet
  - Worksheet for Lesson 1.1
  - Bar Graph Worksheet.
  - Writing Worksheets
  - Clothing Template
  - Fading C.J. Packets
  - Graphing Worksheet
  - UV Detector Cards
  - C.J. Prediction Worksheet
  - Note-Taking Worksheet
  - Photographs of Different Skin Characteristics
- Photographs of professionals wearing safety gear
- Game Show Questions
- Lifeline Cards
- Photo graphs of the lifeguard
- Copy of Storybook (Episode 1)
- Drawing paper
- Clipboards (one for each student)
- Flashlight
- Ruler or appropriate measuring device
- Digital camera
- Glue
- Stapler
- Storybook (Episode 2)
- Sun safe clothing items (e.g., long-sleeved shirt, wide-brimmed hat, sunglasses)
- Catalogs that have sun safe clothing pictured
- Hats
- Example logos
- Multiple bottles of sunscreen with an SPF of 15 or higher
- Storybook (Episode 3)
- Stage or display board
- Paper Persons

## Glossary

**Skin:** the outer covering that protects the body

**Sun Safety:** protecting your skin from the sun by finding shade, wearing cover-up clothing, and using sunscreen

**Sunburn:** what happens when you stay out in the sun too long; too many of the sun's rays reach your body and burn your skin

**Freckles:** small, brown patches of color in the skin that are caused by exposure to the sun.

**Moles:** small, dark, slightly raised patches of skin

## Online Photo Collections for 1st Grade

1. Rainbow Diagram (for use with Lesson 1.1)

This file contains a diagram of a rainbow with the colors labeled.

2. Distinct Skin Characteristics (for use with Lesson 1.2)

This file contains photos of the following:

- Freckles
- Moles
- Birthmarks
- Different hair colors
  - Blonde
  - Strawberry blonde
  - Red
  - Brown
  - Black
  - Grey
- Different eye colors
  - Blue
  - Green
  - Brown
  - Grey
- Different skin tones
  - Very fair
  - Fair
  - Olive
  - Brown
  - Very Dark Brown

3. Mountains and Ocean scenes (for use with Lesson 1.4)

This file contains photos of the following:

- Summit of a mountain (Mt. McKinley)
- Ocean or beach

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Students create life-size paper cutouts of themselves that will be used throughout the Sunny Days, Healthy Ways Curriculum. Students cut out tracings and color in facial features, hair color, and skin markings.	
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## Glossary

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## Online Photo Collections for 1<sup>st</sup> Grade

### 1. Distinct Skin Characteristics

This file contains photographs of the following:

- Freckles
- Moles
- Birthmarks
- Different hair color
  - Blonde
  - Strawberry blonde
  - Red
  - Brown
  - Black
  - Grey
- Different eye color
  - Blue
  - Green
  - Brown
  - Grey
- Different skin tone
  - Very fair
  - Fair
  - Olive
  - Brown
  - Very Dark Brown

### 2. Safety Clothing

This file contains photographs of people wearing protective clothing:

- Fire fighter
- Scuba diver
- Astronaut
- Doctor
- Nurse
- Chef
- Carpenter
- Lifeguard
- Bee keeper

### 3. Damaged Skin

This file contains photographs of damaged skin:

- Mild sunburn
- Extreme sunburn
- Someone with a “farmer’s tan”
- Wrinkles

# 1.1 A Closer Look at Skin

## Description

Students observe their own skin characteristics, eye color, and hair color and record their class statistics on simple bar graphs.

## Activity

- Use pictures downloaded from the website to examine distinct skin characteristics. Use pictures on the website to define moles, freckles, and birthmarks.
  - Moles are growths on the skin that are brown or black and can appear anywhere on the skin.
  - Freckles are areas of concentrated skin pigment or coloration.
  - Birthmarks are skin markings that are present at birth.
- Provide mirrors to students and ask them to examine their faces. Each student draws distinctive aspects of their face on the Describing Skin Worksheet. Instruct students to look for distinctive features like eye color, skin color, freckles, moles, birthmarks, and hair color. Below the picture, instruct students to write five words that describe their face.
- Have students turn to their neighbor and take turns describing skin, hair, and eye characteristics. Together student pairs should determine one similarity and one difference with their neighbor and record it on the bottom of the Describing Skin Worksheet.
- Using the tables below as a guide, create class tables to record statistics on skin tone, hair and eye color, number of freckles, birthmarks, and moles. For classes that do not have representatives of all hair colors, eye colors, and skin tones, download additional pictures from the website to include in the sorting activity.

Skin Color	
Light	
Fair	
Medium	
Olive	
Brown	
Black	

Hair Color	
Red	
Blonde	
Light Brown	
Dark Brown	
Black	

**TEACHER TIP:**  
Talking about the differences in skin color with children might bring up some question or prompt a dialogue. Consider utilizing some of the resources provided in the Supporting Literature section to prepare for talking with students about skin color differences.

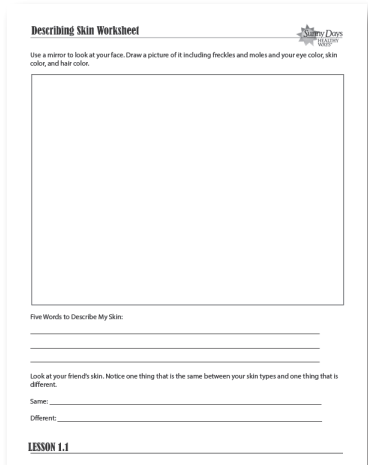
## Learning Outcomes

*Students will be able to:*

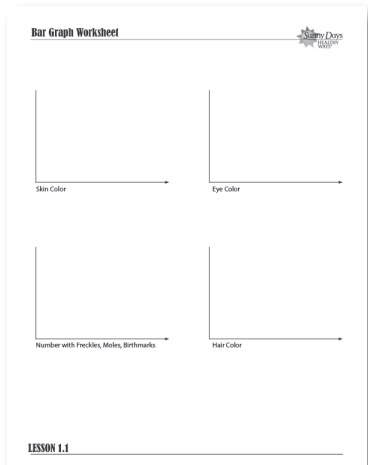
- Observe and describe different skin characteristics (freckles, moles, birthmarks, and color) that make people unique.
- Identify other characteristics (eye color and hair color) that make people different.
- Create a simple bar graph.

## List of Supplies

- Mirrors
- Copies of Describing Skin Worksheet



- Copies of Bar Graph Worksheet.




Supplies continued on next page

# 1.1 A Closer Look at Skin

Eye Color	
Grey	
Green	
Blue	
Hazel	
Brown	

Skin Features	
Freckles	
Moles	
Birthmarks	

**DIGITAL OPTION:** Create digital tables using computer software, such as Microsoft Excel, and project the tables so that the entire class can view it. Go through each feature on all four tables by asking the students with freckles (for example) to stand up and count off. Record the number in the digital table. Repeat for each table.

 Complete the tables on chart paper as a whole class. Go through each feature on all four tables by asking the students with freckles (for example) to stand up and count off. Record the number in the table on the chart paper. Repeat for each table.

- After the information has been recorded on the chart paper or on the computer, instruct your students to complete the Bar Graph Worksheets using these classroom numbers. You may need to do this together as a class. Once the Bar Graph Worksheet is completed, point out the number of different skin types, eye colors, and hair colors there are in the class. Let the students know that they are all special because they are all different and they all need to take care of their bodies.
- Explain that everyone needs to protect their skin every time he or she goes outdoors, even teachers and parents. People with light skin, light colored eyes, and many freckles or moles should be most careful in the sun because their skin burns easily, but it is important for everybody to be safe in the sun!

### TEACHER TIP:

It is important to remember that when you tell kids that everyone should be sun safe, it means you should model sun safety behaviors as well.

## Assessment

Students will be able to verbalize the statistics presented on the whole class bar graph in terms of number of students with different types of skin colors, skin features, eye color, and hair color. They will also have a drawing of their face that contains five words that accurately describe facial features.

- Photographs of different skin characteristics downloaded from the website
- Computer with Microsoft Excel or other graphing software, LCD projector (optional)
  - OR Chart paper, writing supplies, and photocopies of pictures obtained online of unrepresented skin characteristics, eye color, and hair color

## Preparation

- Obtain mirrors for classroom use.
- Create four tables in a computer software program (such as Microsoft Excel) with the following headings: Skin Color, Skin Features, Eye Color, Hair Color (include columns so that all hair and eye colors for your class are represented).
  - If your classroom does not have access to such software, or if the tables you create cannot be projected so that the entire class can view it, create the tables on chart paper instead of using the computer.
- Make copies of the Describing Skin Worksheet and the Bar Graph Worksheet.
- Prepare technology for lesson: Go to the website and locate pictures of distinct skin characteristics for the lesson. For classes that do not have representatives of all hair colors, eye colors, and skin tones, download additional pictures from the website to include in the counting exercise. Determine how you will project the visuals (e.g., on an overhead or LCD projector). If your classroom does not have the capability to project these visuals to the entire class, print photocopies of the photos for your students to view.

## 1.2 Making Paper People

### Description

With the aid of classroom helpers, students create life-size paper people of themselves that will be used throughout the Sunny Days, Healthy Ways Curriculum. Students will color in facial features, hair color, and skin markings.

### Activity

1. With the help of classroom parents or aides, have students lie down on the butcher paper so that their entire bodies can be traced and cut out.
2. Have students color in their facial features and distinctive skin markings including hair color, freckles, moles, and birthmarks that were obtained from the Lesson 1.1 Worksheet. You could also have students cut out hair, freckles, and moles, etc. from construction paper and paste to paper people.
3. Using note cards or strips of white paper create labels with names of each distinct skin characteristic and tape next to the spot on each paper person. Possible labels may include moles, freckles, scars, birthmarks, hair color, eye color, etc.
4. Hang paper people in the classroom.
5. These will be used throughout the rest of the lessons. Students will create additional items for the paper people in other lessons in each unit. For example, in Unit 2, students create a shade structure for the paper people and in Unit 3, students add hats and cover-up clothing.

### Assessment

Observe paper drawings to see that students have labeled each skin characteristic correctly. If students' writing is pre-phonetic or otherwise illegible, have students "read back" what he or she wrote, checking to see that their skin characteristics make sense.

### Technology Extension

Take a digital photograph of each student's paper person and save to use as a comparison to the final version of the paper person at the completion of the unit. This will also be helpful for documenting the process of the activity.

### Learning Outcomes

#### *Students will be able to:*

- ☀ Build on the identification and description of their own facial features, hair color, and skin markings.
- ☀ Create a tool (paper people) that will be revisited throughout the unit.

### Preparation

- ☀ Obtain butcher paper.
- ☀ Provide scissors, coloring supplies, and construction paper.
- ☀ Plan with classroom parents or aides to help create life-size paper people of students.

### List of Supplies

- ☀ Butcher paper
- ☀ Scissors, coloring supplies, and construction paper
- ☀ Note cards or strips of white paper

### TEACHER TIP:

Be sure to provide coloring supplies that can be used to represent skin and hair color of students. For example, "multicultural" marker pack or colored pencils/crayons with an array of skin and hair color options.

## 1.3 Fading C.J.

### Description

This experiment illustrates how sunlight changes the physical properties of an object. Students discuss the helpful and harmful effects of the sun. The total time to complete this experiment is two to four days. The first day, the students set up their experiments. The remaining days are used to detect any changes caused by sun exposure.

### Activity

1. Students brainstorm harmful and helpful things the sun does. Record answers on chart paper and ask students to determine which column the item belongs in.
  - a. Helpful effects of the sun include: warming the Earth so people, plants, and animals can live and grow, as well as giving light so we can see.
  - b. Harmful effects of the sun include: melting things like ice cream; making things like streets and sidewalks hot; drying out and burning plants; making you thirsty; causing your skin to turn red and hurt. Be sure that sunburn is included in the discussion.
2. Pair students and hand out one C.J. Packet to each pair. One team member colors and cuts out the sun safe clothing (wide-brimmed hat, sunglasses, long-sleeved shirt, long pants, and shoes). The other member colors and cuts out the not sun safe clothing (sun visor, tank top, shorts). Be sure he or she keeps the sun safe and not sun safe clothes separate. Note that if students have difficulty with using scissors, a teacher's aide may need to help with this activity.
3. Tell the students to lightly glue or tape the not sun safe clothes on the sun safe Fading C.J. (these include a wide-brimmed hat, sunglasses, long-sleeved shirt, long pants, and shoes).
4. Tell the students to lightly glue or tape the sun safe clothes on the not sun safe Fading C.J. (these include a sun visor, tank top, and shorts).
5. Ask students to compare their Fading C.J.s to the examples created by the teacher.
6. Each team should locate a place where the sunlight is bright and tape up their two pictures so the sun hits them directly, such as on a window or windowsill. Let the sun do its work for two to four days.
7. Explain to students that this is an experiment and they will have to monitor the changes that occur.
8. Ask students to complete the C.J. Prediction Worksheet. You may need to explain that a "prediction" is a statement about what you think will happen in the future. Students will predict what will happen to C.J. over the next four days.

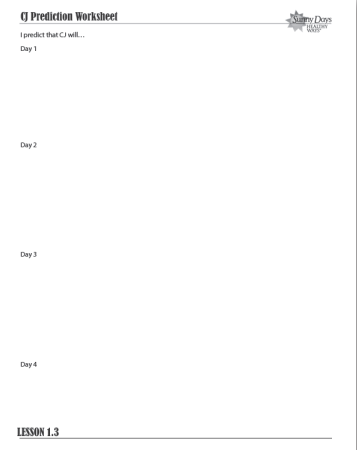
### Learning Outcomes

#### Students will be able to:

- ☀ List the helpful and harmful effects of the sun.
- ☀ Identify the sun as a powerful source of light which can change the characteristics of things.
- ☀ Describe the relationship between the sun and changes in skin color.

### Preparation

- ☀ Prepare Fading C.J. Packets: Print copies of Fading C.J.s from the website. NOTE -- It is important to use construction paper for the C.J. cutout or another type of paper that will fade when exposed to the sun.
- ☀ Print copies of the C.J. Prediction Worksheet.



- ☀ Create a table on chart paper with the following headings: harmful and helpful.
- ☀ Prepare examples of C.J. wearing sun safe clothing and not sun safe clothing.

### List of Supplies (see next page)

## 1.3 The Mystery of the Old Trunk in the Attic (Episode 1)



9. After a few days, have the students collect their cutouts of C.J. Ask them to gently remove the paper clothes from C.J. Has the sun changed the color of C.J.'s unprotected skin? (Yes, the parts of C.J.'s body that were not covered by clothes have faded and changed color).
10. Have each team compare their two pictures and begin a discussion on how the sun's rays damaged (faded) the area not covered by the paper clothes.
  - Which C.J. has more faded skin? (The one with the not sun safe clothes).
  - How does this relate to your skin and how you dress? (Unprotected skin can be damaged by the sun's harmful rays. The sun can change your skin color and cause freckles, a tan, or sunburn. The more clothes you wear that cover your skin, the more your skin will be protected from getting freckles, a tan, or sunburn).
  - It is important to protect yourself from the sun's strong rays.

### Assessment

On a sheet of notebook paper, ask each student to list (or draw) three types of clothing that would protect their skin from the damaging rays of the sun.

### List of Supplies

- ☀ Construction paper (or other paper that will fade in the sun)
- ☀ Scissors
- ☀ Fading C.J. Packets
- ☀ Chart paper
- ☀ Copies of C.J. Prediction Worksheet
- ☀ Notebook paper
- ☀ Teacher-prepared examples of C.J. wearing sun safe clothing and not sun safe clothing. See below for examples:



# 1.4 Safety Clothing and Sun Protection



## Description

Students explore a variety of occupations and describe the different types of protective clothing and gear professionals wear. In a class discussion, students relate the jobs of protective clothing to the protective jobs of the skin.

## Activity

1. Begin class with a slide show of the various professionals wearing protective gear. If you have real examples of protective gear (apron, work gloves, etc.) pass them around to the students. Initiate a discussion with the following questions:
  - What is the job of each of these people?
  - What type of clothing is he or she wearing?
  - Does this clothing protect him or her from something? What are they protecting themselves from?
  - What would happen if they did not protect themselves?
2. Transition into a discussion about the effect of the sun on skin using the photograph of the lifeguard and the questions listed below:
  - What is the lifeguard protecting him or herself from?
  - What would happen if the lifeguard did not wear sunscreen, sunglasses, or sit in the shade of an umbrella?
  - Has anyone ever had a sunburn?
  - What does a sunburn look and feel like? (Your skin turns red, feels hot, and hurts when you touch it. Sunburned skin also can blister and peel or give you fever or chills.)
  - What does it mean when you have sunburn? (It means that you have had too much sun. Your skin is trying to tell you that you have been in the sun for too long).
3. Use photographs provided on the website to examine the effects of sun on human skin.
4. Explain to students that it is not healthy to get sunburned. That is why we are going to learn about being safe in the sun.

## Learning Outcomes

*Students will be able to:*

- ☀ Define sunburn and the causes of sunburn.
- ☀ Describe ways to protect skin from sunburn.

## List of Supplies

- ☀ Computer
- ☀ LCD projection system or overhead
- ☀ Photographs illustrating effects of sun on the skin
- ☀ Photographs of professionals wearing safety gear downloaded from the website
- ☀ Photographs of the lifeguard from the website
- ☀ Examples of safety clothing such as an apron, work gloves, oven mitts, rubber boots, swim goggles or a scuba mask

## TEACHER TIP:

If not using a computer, use actual photos, printed pictures from the Internet, or photographs from magazines.

**Preparation**  
**(see next page)**

# 1.4 Safety Clothing and Sun Protection

## Assessment

At the conclusion of the lesson, ask each student to answer one of the following questions:

- How does a lifeguard protect his or her skin from the sun? (A lifeguard wears sunscreen, sunglasses, or sits in the shade of an umbrella.)
- What is sunburn? (Sunburn is when your skin turns red, feels hot, and hurts because it has been damaged by the sun).

## Preparation

- ☀️ Locate pictures of professionals wearing safety gear and of the lifeguard from the website. Determine the way you will project the photographs; i.e. overhead or LCD projector, paper print-out, etc.
- ☀️ Download photographs illustrating the effects of sun on skin from the website.
- ☀️ If possible obtain an apron, work gloves, oven mitts, rubber boots, swim goggles or a scuba mask.

# 1.5 Sun and You Poem

## Description

A poem is used as a way to review the main points stressed in this unit. The lesson includes a variety of stations to set up in the classroom for independent student work.

## Activity

1. Model “thinking out loud” or “active listening” as students listen to the poem:
  - Read the poem through once with the students. Ask students what rhyming words were in the poem. Record rhyming words on chart paper or on the board. Rhyming words include stay and day; light and right; dry and sky; skin and win.
  - Read the poem through a second time, this time students close their eyes and listen to the words as you read, paying attention to images that come to mind as they hear the words in the poem. Students raise their hand when an image comes to their mind and share their images aloud in turn. If necessary, guide students with an example such as, phrase “you make warmth” from the poem could trigger images of playing outside on a really hot day.
  - Students draw images and write words that triggered the image next to their drawing on a large sheet of butcher block paper.
2. Send students to the Rhyming, Writing, and Listening Stations.

**Rhyming Station** - Students match rhyming picture words.

1. Students match rhyming words.
2. After students have successfully matched the cards, ask students to alphabetize cards using the alphabet mat.

**Writing Station** - Students practice handwriting at this station by copying one stanza of the poem.

1. Paste the first stanza of the Sun Poem at the station. Students practice handwriting by copying the poem on handwriting paper.

**Listening Station** - Students listen to a recording of the poem and follow along to the written poem.

1. Students listen to poem.
2. After listening to the poem, students write their name on the worksheet and the title of the poem. Students also draw their favorite part of the poem.

## Learning Outcomes

*Students will be able to:*

- ☀ Read and understand a poem about the importance of sun safety.
- ☀ Identify rhyming words.
- ☀ Alphabetize words using an alphabet mat.

## List of Supplies

- ☀ Chart paper
- ☀ Writing paper
- ☀ Butcher block paper
- ☀ Drawing supplies
- ☀ Computer with audio download from the website or an MP3 player with sound file uploaded from the website to the device
- ☀ Headphones
- ☀ The following items are available:
  - Rhyming Cards
  - Audio download of the poem
  - Poem Worksheet

**Preparation**  
(see next page)


**Preparation**

# 1.5 Sun and You Poem

## Assessment

Check to see that students have completed all activities at each station.


- ☀️ Prepare a Rhyming Station:  
Print out pictures and Rhyming Cards and place at the station.  
Provide an alphabet mat for students to use.


Rhyming Cards 

Stay	Day
Light	Right
Dry	Sky
Skin	Win

LESSON 1.5

- ☀️ Prepare a Writing Station: Post the first stanza of the poem at the station. Provide lined paper and writing supplies.
- ☀️ Prepare a Listening Station:  
Provide headphones and either a CD player with downloaded CD, or a computer with a downloaded audio version of the poem from the website.  
Download the Poem Worksheet and place on a clipboard. Supply writing and drawing supplies.

Sun, Sun Poem 



Sun, sun here to stay.  
Come to brighten up our day.  
You make warmth and food and light.  
Things about you are so right.  
But...  
You can fade and make things dry.  
You are the power in the sky.  
You can also burn our skin.  
We'll take care, so we can win!

The poem through pictures:  
Draw a picture of your favorite part of the poem.

LESSON 1.5

## 2.1 C.J. and Natalie’s Sunsational Puzzle Quest (Episode 1)



### Description

The storybook episode introduces sun safety and its importance. In the story, C.J. and Natalie are presented with a puzzle that involves finding five sources of shade. As this story is read, students practice active listening skills by making text-to-self connections.

### Activity

1. Read Episode 1 to the class. As you read the story, model the process of creating text-to-self connections. This process is described below.

- As you read the story, ask students to pay attention to any words that trigger memories or thoughts from them. Provide an example to help students understand what you mean by trigger words. The first paragraph of the story is a good place to model this. Before you begin reading, instruct students to sit silently with their eyes closed and listen to you read. Read the passage from the story:

*“C.J. is very excited! She is going on a winter vacation with her parents. They are going to the mountains to go skiing, sledding, and ice skating.”*

- Now explain to the students how this passage triggered memories for you. For example, you could say when you heard the words winter and vacation in the story it reminded you of how much you like to play in the snow. It made you start to imagine winter, snow, and skiing. Ask the students if any of them had similar reactions.
- Reread the passage, but before you begin reading remind students to sit silently with their eyes closed and listen to you read. Ask them to raise their hand if they hear a word that triggers a memory.

*“C.J. is very excited! She is going on a winter vacation with her parents. They are going to the mountains to go skiing, sledding, and ice skating.”*

- Call on students with raised hands and ask them to describe the memory that came to mind and which word triggered the memories. Record students’ words on chart paper.
- After students get comfortable with this process, read a few pages at a time and ask them to concentrate on specific topics in the story. For example, this episode describes items that provide shade and make shadows. Ask students to concentrate on those items and think about how these items relate to their lives.

2. Conclude the activity by reviewing the shade structures described in the story (shade tree, ski lodge, picnic table umbrella, porch roof, and shadow) and why they are important (they protect you from getting sunburned).

### Learning Outcomes

**Students will be able to:**

- ☀ Identify five sources of shade.
- ☀ Listen to a story and create at least one text-to-self connection.

### Preparation

- ☀ Download and print a copy of C.J. and Natalie’s Sunsational Puzzle Quest (Episode 1) from the website

### List of Supplies

- ☀ Chart paper
- ☀ Copy of Storybook (Episode 1)
- ☀ Drawing paper
- ☀ Drawing supplies

## 2.1 C.J. and Natalie's Sunsational Puzzle Quest (Episode 1)



### Assessment

On a sheet of drawing paper, ask students to draw the five shade structures that appeared in the story (shade tree, ski lodge, picnic table, umbrella, porch roof, and shadow).

## 2.2 How Much Shade is There?

### Description

In this activity, students identify the different sources of shade available on the school grounds and collect data in the form of simple drawings, measurements, digital photographs, and descriptive notes. Students determine that larger shade sources provide greater sun protection than smaller shade sources. For schools lacking shade structures, students could identify an ideal location for a shade structure and describe the type of structure that could protect them from the sun.

### Activity

1. Provide students with clipboards, note-taking paper and pencil. Explain that today they are going to practice how to collect data.
2. Introduce the concept of shadows by creating a shadow on the wall using a flashlight:
  - Secure a piece of paper to the wall and cast a shadow onto the paper using a flashlight.
  - Have an assistant hold the flashlight as you trace the silhouette of the shadow cast onto the paper.
3. Model the process of observation and note-taking using the shadow as the topic of observation by thinking out loud as you make observations and record information.

For example you might say, "When I look at the shadow I see a square. I am going to draw a square on my note paper and write the word square next to my drawing."

4. Begin to draw a square on your note paper and encourage students to do the same. Ask the students what else he or she sees in the shadow? (Is the shadow bigger than the object casting the shadow? Are there holes in the shadow?) Demonstrate how to incorporate their observations into their notes and drawings.
5. Next, create a shadow with a second object on the same paper, but before you do, ask students to predict whether the shadow will be bigger or smaller than the first shadow. Ask them to explain why they made this prediction and to write their prediction on their note paper.
6. Again, ask students to share observations about the second shadow (How is it different from the first? Is one bigger? Are they the same shape?) Ask students to draw and write their observations on their note paper.
7. Now draw the shadow on the same sheet of paper that you drew the first shadow, but use a different color pen. Show the class the tracings and discuss whether their predictions were correct.
8. Divide the class into teams of three to four students each.

### Learning Outcomes

#### *Students will be able to:*

- ☀ Use a measuring device (such as a yard stick) to measure the size of a shaded area.
- ☀ Understand the concept of shadows.
- ☀ Identify sources of shade on school grounds.
- ☀ Collect data in the form of simple drawings, measurements, digital photographs, and descriptive notes.

### List of Supplies

- ☀ Clipboards
- ☀ Drawing paper
- ☀ Writing paper and supplies
- ☀ Purple and white crayons
- ☀ Flashlight
- ☀ Ruler or appropriate measuring device
- ☀ UV Detector Cards (will be sent by mail)
- ☀ Note-Taking Worksheet
- ☀ Digital cameras

### Preparation (see next page)

## 2.2 How Much Shade is There?

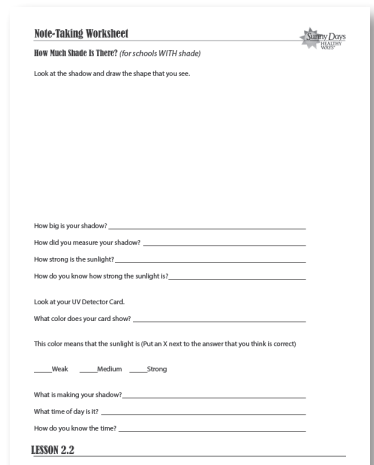
9. Introduce students to the UV Detector Cards with the Modeling Use of a UV Detector Card.
10. Take students on a walk around the school grounds and ask them to find sources of shade by identifying shadows (remind them of the story with C.J. and Natalie). If your school does not have any shade structures, skip to the instructions labeled Schools without Shade Sources.
11. Assign teams to different shade sources.
12. Provide students with the Note-Taking Worksheet. Ask them to take notes and observations on the following items:
  - Shape of the shadow: Students discuss the shape of the shadow and draw the shape on their Worksheet. Ask students to label their drawing.
  - Size of the shadow: Students measure the size of the shadow by using objects or other measuring tools and record the measurement on the Note-Taking Worksheet (if no adult helpers are available to assist with this activity, the class may measure several shade sources together).
  - Source of the shadow: Students identify what is creating the shadow and record on the Note-Taking Worksheet.
  - Strength of the sunlight: Students use the UV Detector Card to determine the strength of the sun's rays in the shadow and in the sunlight. Tell the students to record their findings.
  - Time of day: Students determine the time of day to the nearest hour or half hour (whichever is most appropriate for the students' level) and record on their Note-Taking Worksheet.
  - Digital image: If possible, students take a digital photograph of the shade source and shadow.
13. Store data in a safe place for later use in the creation of their shade poster in Lesson 2.3.

### Schools without Shade Sources

1. Some schools grounds might not have any shade available. If this is the case, take students on a walk around the school grounds and ask them to identify an area that could benefit from a shade structure. You should encourage students to consider places that are used frequently by students (bus stop, playground, picnic table, etc.).
2. Using string or rope, students should mark off the area for the desired shade structure or tree. This will help them determine the shape of the desired structure and the size of the desired structure or tree.
3. Assign teams to different areas in need of shade.

### Preparation

- ☀ Obtain a flashlight and large piece of paper.
- ☀ Identify a short walk around the school grounds that includes a variety of shade sources (trees, canopies, picnic shelters, porches, or shadows). For schools without shade structures, teachers can walk around the school grounds to identify a variety of ideal locations for a shade structure to be installed.
- ☀ Obtain digital cameras
- ☀ Obtain a ruler (or appropriate measuring device for students' learning level), clipboards, and UV Detector Cards
- ☀ Make copies of the Note-Taking Worksheet.



**Note-Taking Worksheet**

**How Much Shade is There?** (for schools WITH shade)

Look at the shadow and draw the shape that you see.

How big is your shadow? \_\_\_\_\_

How did you measure your shadow? \_\_\_\_\_

How strong is the sunlight? \_\_\_\_\_

How do you know how strong the sunlight is? \_\_\_\_\_

Look at your UV Detector Card.

What color does your card show? \_\_\_\_\_

This color means that the sunlight is (Put an X next to the answer that you think is correct)

\_\_\_ Weak \_\_\_ Medium \_\_\_ Strong

What is making your shadow? \_\_\_\_\_

What time of day is it? \_\_\_\_\_

How do you know the time? \_\_\_\_\_

LESSON 2.2



## 2.2 How Much Shade is There?

4. Provide students with the Note-Taking Worksheet and ask them to take notes and observations on the following items:
- Shape of area: Students discuss the shape of the shadow and draw the shape on their Note-Taking Worksheet. Ask students to label their drawing.
  - Size of desired shade structure: Students measure the size of the desired shade structure using objects or other measuring tools and record the measurement on the Note-Taking Worksheet. (If no adult helpers are available to assist with this activity, the class may measure several shade sources together).
  - Strength of sunlight: Students use their UV Detector Card to determine the strength of the sun's ray in the area proposed for a shade structure and record findings.
  - Time of day: Students determine the time of day to the nearest half hour or hour and record on the Note-Taking Worksheet.
  - Also encourage the students to take notice of the weather and the temperature. It does not have to be warm out for it to be sunny.
  - Digital image: If possible, students take a photograph of the location for their desired shade source.

### Modeling Use of a UV Detector Card

Model the use of the UV Detector Card. The detector cards have a light sensitive strip on them and will change from white to purple when exposed to the sun. The card shows the darker the shade of purple, the stronger the UV light. Have each student get out their UV Detector Cards while still in the classroom. Ask them what color the strip is (It should be white). Now take them outside and ask them to pay attention to the card. What color is the strip once the card has been in the sun? Ask students to record the color changes on their note paper, using colored crayons. Show the students how to label the white shade as weak light, light purple as medium light, and dark purple as strong light.

Keep UV Detector Cards in an envelope when not in use; the UV strip only lasts so long if exposed to UV continually.

## 2.2 How Much Shade is There?

### Assessment

In this assessment, the teacher sets up an area in the classroom where a flashlight creates a shadow of an object. Students then measure the size of the shadow using the same measuring technique used in the lesson. The teacher checks to see that the students' answers are the same.

OR

Ask students to describe (in writing or orally) a source of shade big enough to protect their small group (3-4 people) at one time

## 2.3 Go Ahead...Make My Shade!

### Description

Students create their favorite source of shade to place on their life-size paper cutouts of themselves to protect them from the sun. This lesson provides an opportunity for students to practice public speaking and active listening skills. If time allows, use this lesson as an opportunity to review and practice the constructive criticism skills the group learned in Lesson 2.3.

### Activity

1. Students form into the same small groups based on which shade structure (from the previous lesson) they like best. Be sure that the groups are fairly evenly distributed.
2. In the group, students work together to create a model of their favorite source of shade using the supplies provided.
3. On a strip of paper, each student writes one sentence stating why they think the shade source is important. Encourage them to come up with unique sentences to avoid duplicate sentences.
4. Help each group create a label for their shade structure on a piece of construction paper. Leave room on the paper for each student's sentence about the importance of the shade source.
5. Hang the shade structure in the room and place the paper people underneath the structure. Display the label next to the shade structure.
6. Each student shares their sentence while the class practices active listening skills. Attach students' sentences to the construction paper after he or she has shared with the class.

### Continued Constructive Criticism Workshop:

1. Remind students of the steps they took for conducting constructive criticism of their shade posters in Lesson 2.3. As in the previous constructive criticism session, begin by arranging students in a circle, asking them if they can remember the three things they should ask themselves when they participate in constructive criticism. In a place visible to all display the following sentence stems: **I like...**, **I wonder about...**, and **I suggest...**
2. Remind students that constructive criticism is a way to suggest changes and improvements to another person's work so that he or she can make it better. Remind the students that a good way to do this is to use the sentence stems listed on the paper when offering others constructive criticism.
  - I like...
  - I wonder about...
  - I suggest....

### Learning Outcomes

#### *Students will be able to:*

- ☀ Identify a source of shade.
- ☀ Explain why sources of shade are important.
- ☀ Create visual images of shade structures.

### Preparation

- ☀ Prepare Shade Structure Creation Station: Provide construction paper, butcher paper, coloring and drawing utensils, scissors, glue, stapler, and other materials that can be used to create shade structures.
- ☀ Prepare clipboards with notepaper for each student.

### List of Supplies

- ☀ Construction paper, butcher paper
- ☀ Art supplies (markers, crayons, construction paper, scissors)
- ☀ Glue
- ☀ Stapler
- ☀ Clipboards (one for each student)
- ☀ Note paper

## 2.3 Go Ahead...Make My Shade!

3. Look at one of the group shade posters created in Lesson 2.3 and see if the class can remember some of the constructive criticism comments that they made by having a few students share what they liked, wondered about, and suggested for the poster.
4. Next, provide time for the students to tour the room and observe the different shade structures created by each group. As students tour the room, instruct them to silently critique one structure by using the following sentence stems:
  - I like...
  - I wonder about...
  - I suggest....

Students should record their observations and comments on their clipboards.

5. Finally, once students have finished touring the room, take turns going around the circle allowing each student to critique one of the shade structures.

### Assessment

Give students time to brainstorm as a class to decide which source of shade they think would be best for providing shade at the school. Write down their reasoning on the board to include a visual aspect in the brainstorm session.

## 2.4 Shade Tag!

### Description

After a brief review of the main points stressed in this unit, students go outside to play Shade Tag. This exercise teaches them to use their knowledge of shade in a real world setting. It emphasizes making proper choices of available shade sources on the playground while utilizing small and large muscle movements in an outdoor setting.

### Activity

1. Briefly review the main points of sun safe shade using the following questions:
  - What is the first way to be sun safe when outside? (Find shade).
  - Why do you want to use shade? (Shade helps protect your skin from the sun and helps you take care of your body).
  - What are some of the shade sources we talked about or found on our playground? (This could include picnic shelters, trees, buildings, or porches).
  - What kind of shade can you take with you wherever you go? (Portable shade such as umbrellas or tents).
2. Take the class outdoors to play the game. It's best to do this in the morning before peak sun hours, which are 10am – 4pm. Find a place that has at least one large shaded area or several medium shaded areas. Tell students that they are going to play Shade Tag:
  - Shade Tag is similar to Freeze Tag except instead of touching someone to unfreeze them, players have to gently grab their hand and run with them into the shade.
  - One player is 'it' and he or she runs around tagging other players.
  - Once tagged, players must 'freeze' where he or she was tagged until someone comes to rescue them and take them to a shady location.
  - Players cannot be tagged (and thus frozen) if he or she is completely covered with shade (i.e., you cannot see any part of your shadow). In other words, the shade is 'base.'
  - In order to 'unfreeze' a person, a player must gently grab the frozen player's hand and take them into the shade until both players are completely covered with shade.
  - The game ends either when all players are safely at 'base' or when the teacher calls "Time."
3. Choose one or two students to be 'it' and allow the students to play shade tag for five to ten minutes.

### Learning Outcomes

#### *Students will be able to:*

- ☀ Identify ways to be sun safe when playing outside.

### Preparation

- ☀ Identify a location to play shade tag.

### TEACHER TIP:

If your school does not have shade, choose designated areas where the class has decided should have shade. Create a boundary for those areas to mimic shade. Have a conversation about the benefits of shade for playing outside.

## 2.4 Shade Tag!

4. Gather all of the students into the shade and ask them why they think being in the shade is safer than being in the sun. Encourage them to relate Shade Tag to real life situations. Examples that you could share include the following:
  - Sit in the covered or shady part of the bleachers at sport events.
  - Use a picnic table that is in the shade or is covered instead of one that is in the sun.
  - Play hopscotch, marbles, jacks, and other games near a building where it is shady instead of on the sidewalk where it is sunny.
  - It is important to remind your friends to play safely in the shade.
5. Have the students look around and point out any sources of shade that they did not use when they were playing Shade Tag. If there are sources of shade that were not being used for the game, tell students that they are going to play Shade Tag again, but this time they should try to use different sources of shade and they should try to save as many of their classmates as possible. Choose two or four students to be 'it' and have the students play for another five or ten minutes.
6. When the game is complete, do a quick review of what was found on the playground and emphasize other sources of shade that can be found at home or at the park, such as umbrellas, porches, buildings, and tents.

### **Extension**

Play the Shade Tag Game when your class goes to the park for a field trip.

### **Assessment**

Have the students locate and orally describe five sources of permanent shade around the playground and/or school grounds

## 3.1 C.J. and Natalie’s Sunsational Puzzle Quest (Episode 2)

### Description

This lesson introduces the importance of protecting the skin from the sun’s rays by wearing cover-up clothing. C.J. and Natalie solve their second puzzle with help from Willie Widebrim. Students will write about the story and sun safety items.

### Activity

1. Read C.J. and Natalie’s Sunsational Puzzle Quest (Episode 2) to students. As you read the story, instruct students to take notes on or draw pictures of the sun safe clothing items worn by C.J. or Natalie.
2. Turn the students’ attention to the Observation Station. Explain that at this station, students will make observations about different sun safe items and then write at least one sentence about each item. Model the process of observation as follows:

#### Modeling Observation Skills

Here is an example conversation modeling the skills of observation and note-taking by sharing your thinking and recording processes with students.

*“At the observation station I see a hat.”* Pick up the hat and look at it. Let the students observe how you plan and think through the process of recording the information you have observed. You might say, *“My job is to look carefully at the hat and describe what I see in my notes. I can see that this hat is blue and that it is a baseball cap. So I am going to write down that there is a blue baseball hat.”* Begin to write the words blue, baseball, and hat on note paper. Ask the students if there is anything else about the hat that seems important, e.g., is there anything written on the hat?

Next, begin to draw what you are seeing while thinking out loud. For example, you might say, *“Now I will draw the hat in my notes.”* Draw the hat. *“I am going to color the hat blue with the blue crayons.”*

Give students an opportunity to discuss what they see and what they are drawing. If possible, incorporate some of their observations into the drawing.

3. Students rotate through the stations.

#### Observation Station

At this station, students will write two observations about each sun safe item present.

- Students observe a variety of sun safe items and write one or two sentences about each item using the sentence stems listed below (these will vary depending upon the items at station):

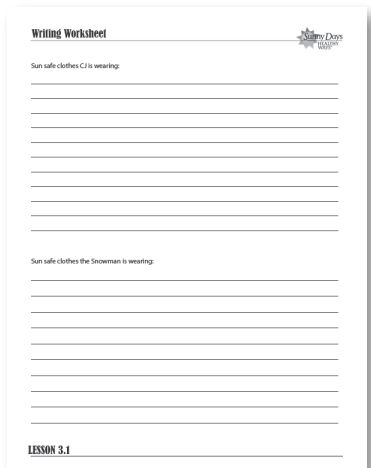
### Learning Outcomes

**Students will be able to:**

- ☀ Define cover-up clothing.
- ☀ Distinguish between clothing that is sun safe and not sun safe.

### List of Supplies

- ☀ Storybook (Episode 2)
- ☀ Sun safe clothing items (e.g., long-sleeved shirt, wide-brimmed hat, sunglasses)
- ☀ Catalogs that have sun safe clothing pictured
- ☀ Writing paper
- ☀ Writing supplies
- ☀ Writing Worksheet



Writing Worksheet

Sun safe clothes C.J. is wearing

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Sun safe clothes the Snowman is wearing

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

LESSON 3.1

### Preparation (see next page)

## 3.1 C.J. and Natalie's Sunsational Puzzle Quest (Episode 2)

- Sunglasses are important because...
- An umbrella protects us from the sun by...
- Hats protect us from the sun by...
- Long-sleeved shirts protect us from the sun by....

### Writing Station

At this station students look at the storybook pictures and make a list of the sun safe clothing items worn by the story characters.

- Students choose between two pictures from the story and list the sun safe clothing items each story character is wearing. One picture includes a picture of C.J. wearing sunglasses, a hat, a scarf, a long-sleeved shirt, long pants, and shoes. The other picture includes a picture of a snowman wearing a scarf and sunglasses.

### Catalog Station

1. Students browse through catalogs and create a list of items he or she would need for a ski trip to the mountains.
2. Students browse catalog a second time to create a list of as many sun safe items as possible.

#### TEACHER TIP:

If time and resources allow, let students cut out pictures of sun safe clothing items needed for a ski trip from the catalog. Have them glue the items onto a piece of paper to take home to compare with the items they already have.

### Assessment

Check over the notes the students wrote at the observation station to ensure they understand the important features of sun safe clothing. Also, review their observations to check sentence structure and language.

### Preparation

- ☀ Download and print a copy of C.J. and Natalie's Sunsational Puzzle Quest (Episode 2) from the website.
- ☀ Prepare Observation Station: Display a variety of sun safety clothing items such as sunglasses, wide-brimmed hat, long-sleeved shirt, long pants, and socks. Provide lined writing paper and writing supplies.
- ☀ Prepare Writing Station: Print Writing Worksheet and writing supplies. Download and print two storybook photographs from the website and post at the station.
- ☀ Prepare Catalog Station: Obtain a variety of catalogs that have clothing items and sun safety items (umbrellas, tents, etc.). Or you could also create catalogs using pictures from magazines and advertisements that include items necessary for sun safe adventures on a skiing trip in the mountains. Label items with prices.



## 3.2 Cover-Up Count Down

### Description

Students take a survey of the types of clothes worn by their classmates. The class data is compiled and simple statistics are performed.

### Activity

1. Create a table for the different types of sun safe clothing worn by students. Include a column for each sun safe clothing item worn by the students. Add additional sun safe clothing items if students are not wearing them (i.e., hats). The list should include long-sleeved shirts, long pants, sunglasses, hats, socks, and shoes. See below for an example:

Long-sleeved shirts	Long pants	Sunglasses	Hats	Socks	Shoes

Create a digital table using the computer and project it so the entire class can view it.



Create a table on chart paper.

2. Tally the number of students wearing each type of clothing listed. Have students stand up and count off. Record the tallies on the chart paper. Students should follow along on the Graphing Worksheet.
3. As a class, analyze the data: What sun safe clothing items are the most popular? What sun safe clothing items are the least popular?

### Assessment

As a written assessment, have students draw an article of sun safe clothing and an article of not sun safe clothing. Then, have the students label each article of clothing as “sun safe” or “not sun safe.” Check to see that students drew appropriate types of clothing.

### TEACHER TIP:

This activity will be affected by the weather on the day of the exercise. It may be more appropriate to talk about and record what students would wear if out in the sun rather than just what they are wearing in the classroom. You can frame the activity around having the students close their eyes and imagine it's the 4th of July (for example) and picture the clothing they would wear.

### Learning Outcomes

*Students will be able to:*

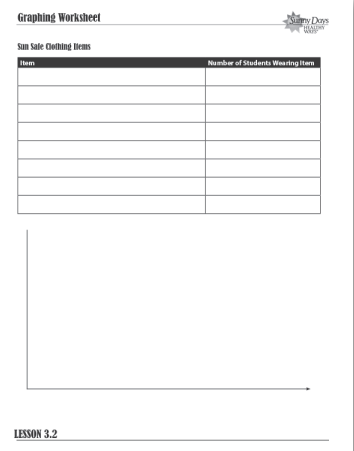
- ☀ List at least three types of clothes that are sun safe.
- ☀ List at least three types of clothes that are not sun safe.
- ☀ Gather data by counting and tallying.
- ☀ Display and explain data from a bar graph or tallies.

### Preparation

- ☀ Print the Graphing Worksheet.
- ☀ Create a spreadsheet on chart paper or on the computer using Excel or similar data collection software.
- ☀ Prepare computer workstations for graphing.

### List of Supplies

- ☀ Chart paper
- ☀ Writing supplies
- ☀ Graphing Worksheet



Graphing Worksheet

Sun Safe Clothing Items

Item	Number of Students Wearing Item

LESSON 3.2

- ☀ Computer with table making and graphing software
- ☀ LCD projector or overhead

## 3.3 Making Hats

### Description

Students analyze a variety of hats and learn about which features make them sun safe. Students create hats for their paper people.

### Activity

1. Begin a discussion on hats by passing around a variety of hats. As students pass hats around the room, ask them to identify similarities and differences among the hats using the following questions:
  - Which hat is bigger? How are the hats similar? How are the hats different?
  - What part of your body is protected by each hat? (Head, neck, ears) Which hats provide shade for your face and eyes?
  - Why do you think hats are important for sun safety? (Hats shade your face, head, ears and neck, and keep you from getting sunburn).
  - Are all hats sun safe? (No. Any hat is better than no hat, but some hats are better than others for sun safety). Talk about the importance of a brim, and how all-around and wider-width brims are the best.
2. Have students create a drawing of a hat to attach to their paper people. Encourage students to consider sun safety in their designs.
3. Next, allow time for students to create their three-dimensional hat with the supplies provided. If possible, have aides assist with this process.
4. After hats are created, begin a constructive criticism workshop. Remind students of the classroom policy for constructive criticism and the difference between negative and positive criticism. Ask the students to remember the previous constructive criticism workshops and provide sentence stems for giving constructive feedback.
5. Provide each student an opportunity to show their hat to the class, instructing them to describe their hat's sun safety features. Then call on students to offer critiques for each hat. Guide the discussion to reinforce what characteristics make hats more sun safe than others.
6. Create a mobile or numerous mobiles out of the hats and hang them throughout the room.

### Assessment

Record whether students were able to incorporate sun safe characteristics (e.g. wide brim, flap in back, all-around brim) into the drawing or design of their hats.

### Learning Outcomes

#### *Students will be able to:*

- ☀ Define the characteristics that make hats sun safe.
- ☀ Recognize that some hats are better than others for sun safety.

### Preparation

- ☀ Obtain various types of hats  
-- Sun visor, baseball hat, wide-brim hat, legionnaire, party hat, cowboy hat, etc.
- ☀ Prepare a Hat Making Station: Provide paper plates, brown paper bags, paper towels, etc.

### List of Supplies

- ☀ Hats
- ☀ Drawing paper
- ☀ Art supplies

## 3.4 Sun Safe Shopping Spree

### Description

Students will create sun safe clothes for their life-size paper people to sell to classmates at a class store. Through shopping, students count, record, and practice problem-solving and communication skills. The activity concludes with students justifying their purchases.

### Activity

1. Explain to students that they will be creating clothes to sell at the class clothing store. Everyone will have to purchase clothing for the life-size paper people that they created in Lesson 1.2. Their job is to prepare three clothing items for the store.
2. Provide instructions on how to make their clothing. Depending on resources in the classroom, students could use construction paper cutouts, drawings on butcher paper, etc. Encourage students to add decorations to the clothes as well, but most importantly, make sure they are sun safe.
3. Next, collect all the clothes and display them in a part of the classroom designated as the “store.”
4. Allow students several minutes to browse in the store and plan what items they would want to buy. Instruct them to create a shopping list of sun safe clothing, using the Shopping List worksheet.
5. Allow students time to “purchase” items and attach to their paper people. Some items may sell out. If this happens, you could provide additional time for students to make more of the requested item. During the time, engage students in a discussion as to why that particular item was in such high demand.
6. After shopping has finished, have each student dress their paper selves with the items they purchased or have made. Have the class describe their shopping choices, including their reasons for picking certain items.

### Assessment

- Check for the appropriateness of the clothing purchases.
- Affix clothing items that are not sun safe to a box to represent a dresser drawer. Have students critique appropriateness of clothing that remains in the drawer.

### Learning Outcomes

#### Students will be able to:

- ☀ Persuade others to choose to “purchase” an item they designed and created.
- ☀ Identify the features that make clothing sun safe.

### Preparation

- ☀ Create a Clothing Decoration Station: Provide paper, markers, colored pencils, paint, etc for students to make clothing for paper person.
- ☀ Create a classroom “store” to display the clothing and allow students to browse and “purchase.”

Clothing Template



LESSON 3.4

### List of Supplies

- ☀ Art supplies
- ☀ Construction paper
- ☀ Sun Safe Shopping List
- ☀ Butcher paper
- ☀ Writing supplies

## 4.1 C.J. and Natalie’s Sunsational Puzzle Quest (Episode 3)



### Description

This story presents information about taking care of your body by being sun safe. This final episode focuses on the importance of protecting the skin from the sun’s rays by using sunscreen. It also summarizes the importance of all three ways to be sun safe—finding shade, wearing cover-up clothes, and using sunscreen. After reading the story, students will review sun safety knowledge by retelling the story with handmade puppets.

### Activity

1. Tell students they are going to practice using their active listening skills while you read the final episode of C.J. and Natalie’s Sunsational Puzzle Quest, reminding students how they practiced active listening in Lesson 1.4 when you read the poem Sun and You. As you read to them, ask students to close their eyes and pay attention to the mental images for each of the main characters in the story: C.J., Natalie, Willie, Sherman, Ella, and Susan.
2. After the story is over, ask students to describe which character is the most vivid in their minds and to describe what they see.
3. Create teams of six -- one student per main character. Assign each student a different character from the story.
4. Assign teams to the Puppet Creation Stations and provide guidance on how to create a puppet for the character he or she was assigned. Ideally, include a parent aid at these stations to assist the students with creating their puppets.
5. Once puppets are created, reread the story to the students, asking them to try to remember the order of events in the story.
6. Give students time to reenact the story with their puppets in their groups.

### Assessment

As students perform their stories, ask each team the following questions in order to assess for understanding:

- Who is Willie Widebrim? What advice does he give?
- Who is Sherman Shadetree? How can Sherman Shadetree help you be sun safe?
- Where are C.J. and Natalie going? What are they going to do when they get there?
- Who is Susan Sunscreen? How does she help C.J. and Natalie?

### Learning Outcomes

*Students will be able to:*

- ☀ Retell the story in a logical sequential order.
- ☀ Describe how sunscreen protects their skin from the sun’s rays.
- ☀ Identify shade, sun safe clothing, and sunscreen as ways to protect skin from the sun.

### List of Supplies

- ☀ Storybook (Episode 3)
- ☀ Paper bags
- ☀ Popsicle sticks
- ☀ Paper plates
- ☀ Stapler
- ☀ Scissors
- ☀ Glue
- ☀ Socks
- ☀ Art supplies (plastic eyes, yarn, scraps of material, pipe cleaners, ribbon)
- ☀ Markers, Crayons
- ☀ Stage or display board

**Preparation**  
(see next page)

## 4.1 C.J. and Natalie's Sunsational Puzzle Quest (Episode 3)



### Puppet Making Directions

**Sack Puppets:** Use lunch sacks to create puppets by drawing a face and body on the sack. Typically the face goes on the bottom of the sack and the body is the sides of the bag. Try gluing construction paper to the bag to add color. Use material scraps, buttons, pipe cleaners, ribbon, or yarn to add additional detail.

**Stick Puppets:** Download pictures of the storybook characters from the website onto cardstock or heavy paper. Help students to cut out the shapes of the characters. Next, give students time to color and decorate their character shapes and help them to glue the shapes to a stick.

**Paper Plate Puppets:** Staple two paper plates together, leaving an opening for a hand to fit inside. Let students decorate the paper plate puppets as they wish. Create hands, arms, and legs out of construction paper and staple to the inside of the paper plates. Use yarn on the edge of the plate for hair.

**Sock puppets:** Glue buttons, plastic eyes, or felt cutouts to the toe of the sock to make facial features. Attach yarn for hair.

### Modification

Instead of creating puppets, supply students with clothing items and have them dress as story characters to reenact the story. Simple costumes can be made with the following:

- Natalie and C.J. – Create nametags for each of them.
- Willie Widebrim – Wear a wide-brimmed hat.
- Ella Umbrella – Carry an umbrella.
- Susan Sunscreen – Carry a bottle of sunscreen and sunscreen lip balm.

### Preparation

- ☀ Prepare Puppet Creation Stations: Provide paper bags, Popsicle sticks, paper, scissors, glue, and markers for creating the puppets. Provide a stage or display board. Create enough Puppet Creation Stations so that each team of six can work together.
- ☀ A list of Directions for Easy to Make Puppets is located at the end of this lesson. Note that it may be helpful to work with a teaching aide or a parent to prepare puppet-making materials ahead of time. For example, an assistant could help with cutting out yarn for hair; make body shapes out of construction paper, etc.
- ☀ Download pictures of storybook characters from the website.

## 4.2 The Five W's of Sunscreen Game Show



### Description

Students learn the Five Ws of sunscreen. The Five W's of sunscreen include: what you should wear (sunscreen lotion and lip balm), who should wear it (everyone), when you should wear it (everyday), where you should wear it (on all exposed skin), and why you should wear it (to keep from getting sunburned).

### Activity

1. Begin the lesson by asking if anyone remembers the important information they learned from Susan Sunscreen in the last story. (They learned about the importance of using sunscreen-- C.J. had been playing in the sun too long and got sunburned. Susan Sunscreen and Willie Widebrim told C.J. that to avoid sunburn she should use sunscreen lotion and lip balm.)
2. As a class, identify the Five W's of sunscreen with the students – what you should wear, who should wear it, when you should wear it, where you should wear it, and why you should wear it. As students identify the Five W's, record their answers in the table.
  - What - Sunscreen and lip balm with SPF 15 or greater
  - Who - Everyone
  - When - Everyday and at least 30 minutes before going outside
  - Where - On all exposed skin
  - Why - To protect skin from the sun's rays
3. Divide the class into two to four equally matched teams. Explain the rules to the students.

### GAME RULES

- Each team will choose a player to draw a question from the hat.
- Each question has a corresponding number so that the teacher can easily project the question for the whole class to read aloud together, with the help of the teacher.
- If the player has trouble with the question, he or she can use one of their two lifelines -- The Friend Lifeline allows the student in the hot seat to ask a friend for help. The Team Lifeline allows the student in the hot seat to ask his or her entire team for help. Each team only gets two lifelines during the game.
- Points are awarded to correct answers.
- Rotate through each team until all students have been given a turn.

### Learning Outcomes

#### *Students will be able to:*

- ☀ Identify the Five W's of sunscreen—what you should wear, who should wear it, when you should wear it, where you should wear it, and why you should wear it.

### List of Supplies

- ☀ Chart paper
- ☀ Overhead or LCD projector, if available
- ☀ Hot seat (chair at the front of the room)
- ☀ Game Show Questions
- ☀ Lifeline Cards

### Preparation

(see next page)

## 4.2 The Five W's of Sunscreen Game Show

4. Modify the game as necessary. Select questions that are an appropriate level of difficulty for the student answering the questions. Incorporate your own questions with those listed below.
5. If somebody gets question wrong take a moment to discuss correct answer.

### GAME SHOW QUESTIONS:

#### True or False

1. Sunscreen only needs to be used on sunny days.
2. Animals can get sunburned.
3. Feet cannot get sunburned.
4. Some animals sleep during the day to avoid the sun and protect their skin.
5. Umbrellas are only used in the rain.
6. Sunscreen only needs to be worn on your arms.
7. Sunscreen with an SPF 10 is a good choice.

#### TEACHER TIP:

Questions 2 and 4 were not taught in the previous unit but they can still be asked to spark a conversation. The answer for both questions is "true."

#### Fill in the blank

1. This is used to protect your lips from the sun.
2. You can wear this to protect your eyes from the sun.
3. Name one way to be sun safe.
4. Name one place where you can find shade.
5. Name one helpful thing the sun does.
6. Name one harmful thing the sun does.
7. Sunscreen needs an SPF of \_\_\_\_ or higher to be effective.

#### Open-Ended Questions

1. What would you do if you were waiting for the bus on a sunny day?
2. When should you wear sunscreen?
3. When should you put on sunscreen?
4. How is a fireman's uniform like sunscreen?

### Preparation

- ☀ Using chart paper, create a table with five columns labeled: what, who, when, where, and why. Display the chart so that everyone can see.
- ☀ Prepare for the Game Show:
  - Place a chair in the front of the room -- This will be the hot seat that students sit in when they are answering questions.
  - Create a scoreboard that is visible to everyone.
  - Download Game Show Questions.
  - Decide how to project the questions for everyone to see (overhead or LCD projector, or write out each question on chart paper for all to read together). Also make a copy of the questions, cut them out, and put them in a bag or a hat to be randomly drawn (this will structure the order of the questions).
  - Download Lifeline Cards (Friend Lifeline or Team Lifeline) for each team and print out the cards.

Lifeline Cards



**Friend Lifeline**

**Team Lifeline**

LESSON 4.2

## 4.2 The Five W's of Sunscreen Game Show



5. Who should wear sunscreen?
6. Why do you wear sunscreen?
7. Why is the SPF an important number to consider when purchasing sunscreen?

### **Assessment**

At the conclusion of the game, ask students to partner-share the Five W's with each other. The teacher then rotates through the partner groups to see that each group is able to identify the Five W's.



## 4.3 I'm Going to the Beach and I'm Going to Take...



### Description

Students review sun safety knowledge in this memory game.

### Activity

1. Begin by saying the following: "I'm going to the beach and I'm going to take (fill in the blank) with me". Instruct students to choose one sun safe item.
2. Next, a student repeats the phrase "I'm going to the beach and I'm going to take (previous answer) and (sun safe item they choose).
3. Continue going around the circle until everyone has had a chance. As the circle progresses, the list becomes longer and harder for students to remember what the previous answers were.

### TEACHER TIP:

If you have a very large class, you might consider splitting into groups, ideally with 4-6 students each. If you do use one group, encourage students to be very specific in their answers (eg. "wide-brim hat" instead of "hat") so that there are enough options for each of the students to give an answer.

### Assessment

During the course of the game, the teacher actively listens to see that students are able to identify appropriate sun safe items such as sunscreen with an SPF of 15 or higher, sunscreen lip balm, a beach umbrella, cover-up clothes, wide-brim hats, sunglasses, etc.

### Modifications

Begin with an item that begins with the letter A and then add an item with a letter B to help students organize their memories. Also, smaller circles and story props (such as pictures of items from the story) could be used to activate their memories.

### Learning Outcomes

*Students will be able to:*

- ☀ List ways to prevent sunburn.

### Preparation

- ☀ Arrange students in circle.

## 4.4 Paper Person Critique

### Description

Students reflect on the changes made to their paper person throughout the sun safety lessons and write a critique of their final paper person to share with the class.

### Activity

1. Explain to students that they are going to examine their paper person and discuss the way the paper person has changed in the past few weeks.
2. Group students into pairs or small groups and have them examine changes made to their paper person throughout the past couple of weeks. Each student should do the following:
  - Tell their partner about at least two sun safe items on their paper person.
  - Determine two ways their paper person is different from their partner's person.
3. After students have shared with their partners, provide students with a copy of the Paper Person Critique Handout with the following sentence stems and have them individually complete the sentences:
  - Something interesting I learned was...
  - My sun safe paper person knows how to...
  - I'm proud of my sun safe paper person because...
4. One at a time, students stand next to their paper person and read their completed sentences.

**Optional:** Videotape the students next to their paper people as they read their completed sentences.
5. Post the critiques next to their paper person.

### Assessment

At the conclusion of the activity, the teacher checks to see that each student has three completed sentences that relates to sun safe activities.

### Extension

Using their new critiquing skills, have each group critique another group's paper people.

### Learning Outcomes

*Students will be able to:*

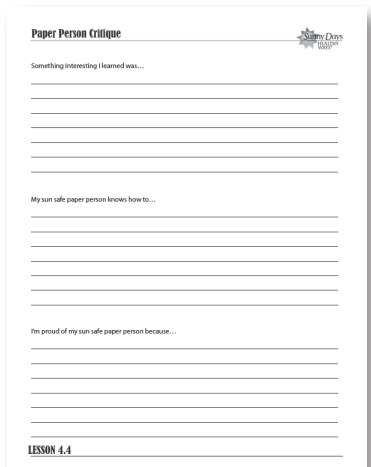
- ☀ Evaluate stages of change of their paper people.

### Preparation

- ☀ Remind students of the pre-sun safe paper people and provide photographs for comparison if available.

### List of Supplies

- ☀ Paper Persons



**Paper Person Critique**

Something interesting I learned was...

My sun safe paper person knows how to...

I'm proud of my sun safe paper person because...

LESSON 4.4

## 4.5 Sunscreen Bottles

### Description

Students learn key facts about sunscreen and create a bottle of sunscreen to attach to their paper people.

### Activity

1. Begin the lesson by reviewing the key facts about sunscreen listed below. If possible, provide small groups with bottles of sunscreen to pass around between group members, or you could hold up a bottle and point out key features you wish to emphasize to them. With the class, label a sheet of chart paper, "Key Facts About Sunscreen." Students will help you fill in the chart after you speak with them about the following key points:
  - Sun Protection Factor (also called SPF) is a number that refers to the product's ability to absorb or reflect sunlight for an extended period of time. The higher the SPF, the longer the sun protection the sunscreen provides. An SPF of 15 or higher is recommended to provide two hours of protection.
  - To be most effective, sunscreen should be applied 30 minutes before going outside.
  - Sunscreen should be reapplied after swimming or sweating because it can wash or rub off.
  - Sunscreen should be applied in a thick even layer on all areas of the skin not covered by cover-up clothing and hats.
2. Once you have gone over the points above, call on students, asking them to share what they just learned about sunscreen and synthesize the information that they share on the chart paper.
3. Next, tell the students that they will create bottles of sunscreen to attach to their paper people. Be sure to point out to students where they can look to find words such as sunscreen, SPF, and instructions on how to use the product (show them where to find information on the bottles and point out the instructions that you put on the chart paper). The bottles should include the following items:
  - SPF of 15 or greater
  - The word sunscreen
  - Instructions stating when to apply and reapply sunscreen (Sunscreen should be applied 30 minutes before exposure to the sun).
4. Attach bottles of sunscreen to the students' paper people.

### Learning Outcomes

#### *Students will be able to:*

- ☀ Describe the importance of SPF.
- ☀ Recognize that SPF greater than 15 is recommended for sun protection.
- ☀ Identify sunscreen as a way to be sun safe and protect the skin from the sun.

#### Preparation

- ☀ Provide art supplies.
- ☀ Obtain bottles of sunscreen and display in the classroom

#### List of Supplies

- ☀ Construction paper
- ☀ Scissors
- ☀ Glue
- ☀ Coloring supplies
- ☀ Multiple bottles of sunscreen with an SPF of 15 or higher

## 4.5 Sunscreen Bottles

### Assessment

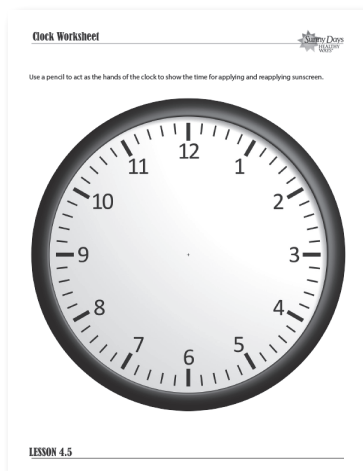
The teacher checks to see if sunscreen bottles include the following components:

- A correct SPF number of 15 or greater.
- The bottle is labeled with the word sunscreen.
- A short description of when to apply sunscreen.

Note that if you are unable to discern pre-phonetic students' writing, it may be necessary to ask students to "read back" their writing to you. Some teacher may wish to write transcriptions of what the students read.

### Extension

Incorporate telling time into this lesson. Use the clock worksheet to have students practice using a clock to know when to apply and reapply sunscreen.



For example, the time activity may go like this:

*"You are going to be out in the sun at 1:00pm. Show me what time you should apply sunscreen."* Students should put the hands on the clock at 12:30.

*"Now show me what time you should reapply sunscreen if you are using SPF 15."* Students should put the hands of the clock on 3:00.

# Activities Section

**Lesson 1.1 - Describing Skin Worksheet**

**Lesson 1.1 - Bar Graph Worksheet**

**Lesson 1.3 - CJ Prediction Worksheet**

**Lesson 1.5 - Sun, Sun Poem**

**Lesson 1.5 - Rhyming Cards**

**Lesson 2.2 Note-Taking Worksheet**

**Lesson 2.2 - Modeling Use of a UV Detector Card**

**Lesson 3.1 - Writing Worksheet**

**Lesson 3.2 Graphing Worksheet**

**Lesson 3.4 - Sun Safe Shopping List**

**Lesson 4.2 - Lifeline Cards**

**Lesson 4.4 Paper Person Critique**

**Lesson 4.5 Clock Worksheet**

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# Describing Skin Worksheet



Use a mirror to look at your face. Draw a picture of it including freckles and moles and your eye color, skin color, and hair color.

A large, empty rectangular box with a black border, intended for a student to draw a picture of their face, including freckles, moles, eye color, skin color, and hair color.

Five Words to Describe My Skin:

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Look at your friend's skin. Notice one thing that is the same between your skin types and one thing that is different.

Same: \_\_\_\_\_

Dfferent: \_\_\_\_\_

## LESSON 1.1

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# Bar Graph Worksheet

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Skin Color



Eye Color



Number with Freckles, Moles, Birthmarks



Hair Color

# CJ Prediction Worksheet

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I predict that CJ will...


Day 1

Day 2

Day 3

Day 4





**Sun, sun here to stay.  
Come to brighten up our day.  
You make warmth and food and light.  
Things about you are so right.  
But...  
You can fade and make things dry.  
You are the power in the sky.  
You can also burn our skin.  
We'll take care, so we can win!**

Draw a picture to go with the poem.

**Stay**

**Day**

**Light**

**Right**

**Dry**

**Sky**

**Skin**

**Win**

# Note-Taking Worksheet



## How Much Shade Is There? *(for schools WITH shade)*

Look at the shadow and draw the shape that you see.

How big is your shadow? \_\_\_\_\_

How did you measure your shadow? \_\_\_\_\_

How strong is the sunlight? \_\_\_\_\_

How do you know how strong the sunlight is? \_\_\_\_\_

Look at your UV Detector Card.

What color does your card show? \_\_\_\_\_

This color means that the sunlight is (Put an X next to the answer that you think is correct)

\_\_\_\_ Weak    \_\_\_\_ Medium    \_\_\_\_ Strong

What is making your shadow? \_\_\_\_\_

What time of day is it? \_\_\_\_\_

How do you know the time? \_\_\_\_\_

## LESSON 2.2

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# Note-Taking Worksheet



## How Much Shade Is There? *(for schools WITHOUT shade)*

Draw the shape of the area where you want to shade:

What is the size of shade structure that you want? \_\_\_\_\_

How did you measure the size? \_\_\_\_\_

How strong is the sunlight? \_\_\_\_\_

How do you know how strong the sunlight is? \_\_\_\_\_

Look at your UV Detector Card.

What color does your card show? \_\_\_\_\_

This color means that the sunlight is (Put an X next to the answer that you think is correct)

\_\_\_\_ Weak    \_\_\_\_ Medium    \_\_\_\_ Strong

What is making your shadow? \_\_\_\_\_

What time of day is it? \_\_\_\_\_

How do you know the time? \_\_\_\_\_

## LESSON 2.2

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## UV SAFE Level of Sun Exposure

*Low*  
0

*Moderate*  
4

*High*  
7

*Critical*  
10

Expose the UV Safe Meter to direct sunlight for 20 SECONDS, then compare the color in the sun's center with the meter bar to find the approximate UV intensity.

(Exposing the meter to the sunlight for long periods of time will reduce its accuracy and life span. Keep the meter in an envelope or drawer when not in use.)

Sun safe clothes CJ is wearing:

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Sun safe clothes the Snowman is wearing:

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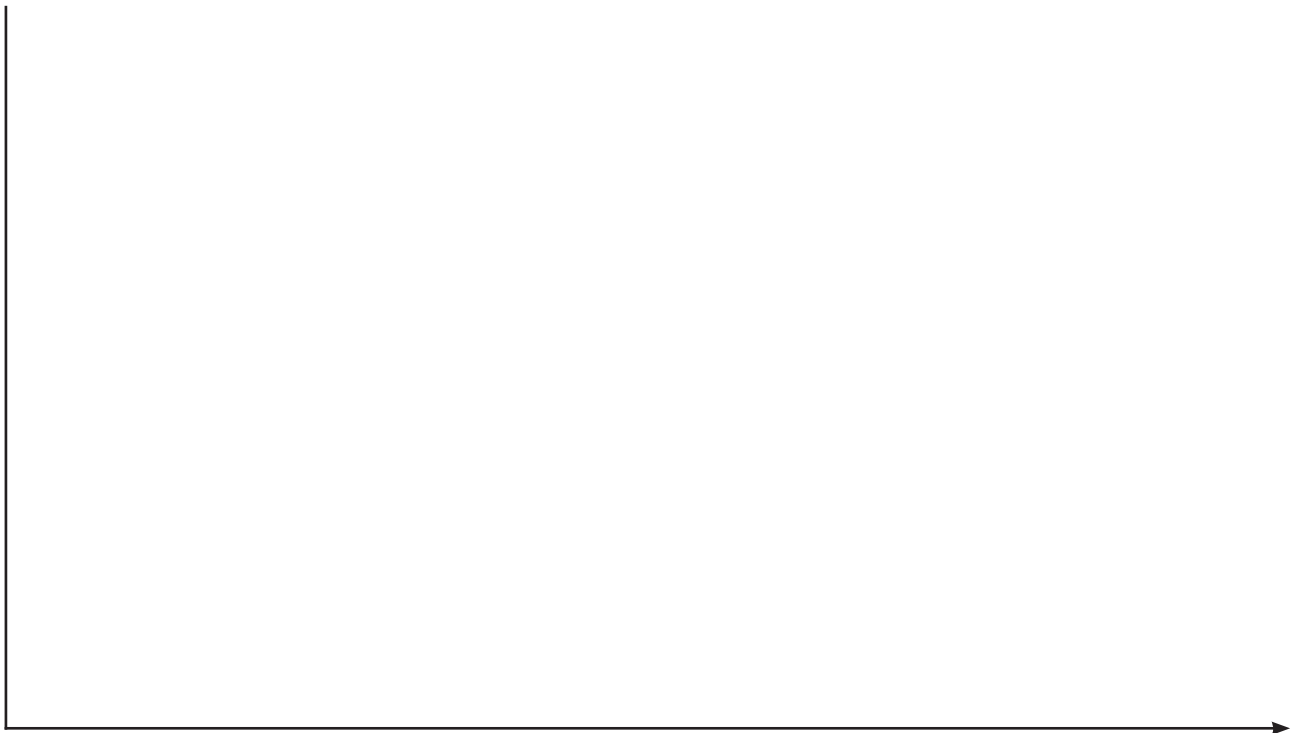
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## Sun Safe Clothing Items

Item	Number of Students Wearing Item



# Sun Safe Shopping List

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To Buy:

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Draw the sun safe outfit you purchased:



**Friend Lifeline**

**Team Lifeline**

# Paper Person Critique



Something Interesting I learned was...

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My sun safe paper person knows how to...

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I'm proud of my sun safe paper person because...

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Use a pencil to act as the hands of the clock to show the time for applying and reapplying sunscreen.

