



Fourth Grade

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Tucson Unified School District and teachers
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This project was funded in part by grants from the National Cancer Institute (CA62968 and CA23074) and the Arizona Disease Control Commission

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Visit 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 into four units and is organized for students to learn, assess, report, and recommend sun safety behaviors.

During the course of this curriculum, students will work on an overarching project: a sun safety campaign. The theme for the Fourth Grade curriculum builds on the 2004 federal law requiring schools that receive federal funds to hold an event about the Constitution on September 17. Additionally, many school systems teach about the constitution and government in the Fourth Grade. Hence, this curriculum has been created with the theme of government and the constitution in mind. Along the way, students will participate in the following activities:

- Pledge Allegiance to My Skin Type (Lesson 1.4)
- Campaign Whistle Stop Tour (Lesson 2.2)
- Shade Task Force (Lesson 2.3)
- Shade Policy Memo (Lesson 2.4)
- Writing a Sun Safety Bill (Lesson 3.3)
- Congressional Hearing on Sunscreen (Lesson 4.2)
- Sun Safety Commissioner (Lesson 4.3)
- Revisiting the Skin Pledge of Allegiance (Lesson 5.2)
- Sun Safety Constitution and Bill of Rights (Lesson 5.3)

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:

Morbidity and Mortality Weekly Report; Guidelines for School Programs to Prevent Skin Cancer

<http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5104a1.htm>

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

Shade Planning for America's Schools

http://www.cdc.gov/cancer/skin/pdf/shade_planning.pdf

What You Can Do

http://www.cdc.gov/cancer/skin/pdf/sunsafety_v0908.pdf

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, Bulller 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 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 this Pencil symbol: 

Documentation

During the course of the unit, consider using a camera to document the process of going through the lessons.

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.

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Supplies Needed

A list of supplies needed for each unit is provided at the beginning of the respective lessons. Photographs and activity sheets are provided in the lessons and on the website. To aid in preparation, a list of materials you may need to obtain follows:

- Grapes
- Raisins
- UV Detector Cards
- Newspaper with UV rating
- Computer workstations with Internet access.
- Paper copies of the EPA UV Index Scale
- Writing supplies
- Chalkboard or chart paper
- Mirrors
- Globes, world maps, and/or world atlases (preferably enough for groups of four or five students to share)
- Photographs of presidential candidates on whistle stop campaigns
- Measuring tapes
- Clipboards
- Board or chart paper with table drawn for class
- Stopwatches
- Examples of products with warning labels and rating criteria
- Examples of different sunscreen bottles
- U.S. Constitution with focus on the Bill of Rights
- Chart paper

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 4th Grade

- 1. Electromagnetic Spectrum (for use with Lesson 1.2)** This file contains a diagram of the electromagnetic spectrum.
- 2. Diagram of Skin Layers, Sun, UVA, UVB, and UVC Rays (for use with Lesson 1.2)** This file contains a diagram of a sun with UVA, UVB, and UVC rays extending from it. The UVA and UVB rays penetrate a diagram of skin. The UVA penetrate to the skin's deeper layer and the UVB penetrate just to the skin's surface.
- 3. Rainbow Diagram (for use with Lesson 1.2)** This file contains a diagram of a rainbow with the colors labeled.
- 4. UV Rating Scale (for use with Lesson 1.2)** This file contains a UV rating scale.
- 5. Diagram of Electromagnetic Spectrum (for use with Lesson 1.2)** This file contains a diagram of the electromagnetic spectrum.
- 6. Diagram of UV Detector Card (for use with Lesson 1.2)** This file contains a labeled diagram of the UV Detector Card.
- 7. Different Skin Types and Distinct Skin Characteristics (for use with Lesson 1.3)** This file contains photographs 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

8. Seasons, Latitude, and Sun Intensity (for use with Lesson 2.1) This file contains the following:

- Diagram of how the seasons work with the Earth rotating around the sun.
- Diagram of latitude and sun intensity.

9. Whistle Stop Campaign (for use with Lesson 2.2) This file contains photographs of presidential candidates on whistle stop campaigns.

10. Sun Safety Commissioner (for use with Lesson 5.1) This file contains examples of catchy campaign slogans used in past elections.

1.1 Raisins and Grapes



Description

This activity sets the stage for the four sun safety units. Students learn about visible and invisible light. They compare a raisin and a grape to human skin to illustrate how too much sun exposure can affect unprotected skin.

Activity

1. Place one raisin and one grape on each student's desk. Ask students to examine the grape.
2. Lead a brief discussion about the differences between the raisin and the grape, using the following questions:
 - How are the raisin and the grape different? (The grape is plump, fresh, smooth, and moist; the raisin is small, dry, and wrinkled.)
 - How are the raisin and the grape similar? (They were both grapes at one time.)
 - What would happen if we put the grape out in the hot sun for a while? (It would dry up and turn into a raisin.)
3. Ask if anyone knows what causes grapes to turn into raisins. (The sun's energy dries things.) Brainstorm with students other things the sun's energy provides. (The sun provides the energy to sustain life on Earth. Without it, you would not have light, heat, weather, plant or food.)
4. Brainstorm some of the negative impacts of sun exposure.
 - Too much sun can cause things to fade or dry out.
 - It can also cause skin to dry out, lose its elasticity, and wrinkle.
 - This can make someone look older than they really are.
 - The sun can also cause freckles, sunburns, a tan, cataracts in the eyes, pre-cancerous sores, and skin cancer. These are all types of sun damage.
 - The longer skin is exposed (out in the open, unprotected) to the sun, the more damage it receives.
5. Ask the students if they have ever seen someone with sun damaged skin, for example, older people they have seen who have very tanned, rough, wrinkled, weathered skin.
6. Tell the students that the class is starting a group of lessons called Sunny Days, Healthy Ways. These lessons will help them learn about the sun and ways to protect their skin, eyes, and lips from the sun's powerful ultraviolet radiation. This type of protection is called sun safety. It is important to know the amount and strength of the sunlight you are exposed to in your daily life. A small amount of exposure to sunlight can be healthy, but too much sun can be dangerous.

Learning Outcomes

Students will be able to:

- ☀ Define sun exposure.
- ☀ Describe the sun as both helpful and harmful to life on Earth.
- ☀ List at least three ways the sun can harm skin and eyes.

List of Supplies

- ☀ Grapes
- ☀ Raisins

Preparation

- ☀ Obtain one raisin and one grape for each student.

1.1 Raisins and Grapes



Assessment

Ask students to write a short paragraph in which they describe how our skin can be damaged by too much sun exposure, much like how the grape became the raisin (too much sun exposure causes wrinkles, freckles, skin cancer, sunburn, etc)..

1.2 Detecting Ultraviolet Light



Description

Students learn what ultraviolet light is and how to detect it.

Activity

1. Ask if students can explain how the sun can hurt the skin (i.e., how the sun dries things out or warms things up).
2. Use the diagrams provided on the accompanying website and the following points to clarify and discuss how the sun's energy is transferred:
 - All light is a form of energy. Light is visible energy, like a light bulb or the light from the sun. The human eye can see the visible light as white. This white light is really a mixture of seven colors-- red, orange, yellow, green, blue, indigo, and violet – the colors of the rainbow! These seven colors make up the visible spectrum.
 - Energy found just outside this spectrum is made up of light we cannot see, including infrared and ultraviolet. Infrared light causes the warmth that you feel when you are out in the sun. Ultraviolet light is energy that is invisible—you cannot see it or feel it. But it is ultraviolet light that can damage your skin and eyes if you spend too much time in the sun unprotected. Explain that ultraviolet light is called UV light for short.
 - Point out how ultraviolet light is located beyond the violet light on the electromagnetic spectrum. The ultraviolet light is on the right side of violet, it is beyond the violet light on the spectrum. Explain that ultraviolet is another way of saying beyond violet.
 - Explain that although we cannot see UV light, it damages skin.
 - Explain the differences among UVA, UVB, and UVC light. UVA light is the longest wavelength of UV light and it damages the skin's deeper layers. UVB light has a medium wavelength and it also damages the skin's surface. UVC light has the shortest wavelength but is blocked by the atmosphere's ozone and does not reach the skin.
 - Tell the students that they may not be able to see or feel ultraviolet light, but they can measure it using a UV Detector Card.
3. Explain to students that they can find the daily UV Index in a variety of places including newspapers, on the Internet, and by using a UV Detector Card.
 - Newspapers: Newspapers regularly report daily UV ratings. Pass around a local newspaper and show students where they can locate the UV rating (it is typically located in the weather section of the paper).
 - Internet: A variety of websites keep up-to-the minute UV Index ratings. Below is a list of websites that report daily (and past) UV ratings:

Learning Outcomes

Students will be able to:

- ☀ Explain the difference among UVA, UVB, and UVC light.
- ☀ Distinguish between visible and invisible light

List of Supplies

- ☀ UV Detector Cards
- ☀ Diagram of Electromagnetic Spectrum and Visible Light (from NASA http://imagine.gsfc.nasa.gov/docs/science/know_l1/emspectrum.html)
- ☀ Diagram of UV Detector Card
- ☀ Newspaper with UV rating
- ☀ Computer workstations with Internet access
- ☀ LOW-TECH OPTION: Paper copies of the EPA UV Index Scale
- ☀ Writing supplies
- ☀ Detecting Ultraviolet Light Activity Sheet

Preparation

(see next page)

1.2 Detecting Ultraviolet Light



- Environmental Protection Agency:
<http://www.epa.gov/sunwise/uvindex.html>
- National Weather Service Climate Prediction Center:
http://www.cpc.ncep.noaa.gov/products/stratosphere/uv_index/uv_current.shtml
- UV-Forecast: <http://uv-forecast.com/>
- UV Detector Cards: Explain that with a UV Detector Card students can assess the UV Index. Display Diagram of UV Detector Card and pass out UV Detector Cards to the class.
 - Explain that the long strip on the UV Detector Card has been treated with a chemical that changes color in the presence of ultraviolet light.
 - The color strip will appear white in the absence of UV light.
 - The detector strip will change to dark purple in high concentrations of UV light.
 - At intermediate concentrations of UV light the detector strip will appear as a shade between dark purple and white (the lighter the strip, the lower the concentration of UV light, and the darker the strip, the higher the concentration of UV light).
 - Show students how to use the card to obtain an accurate reading.
 - The sensor strip on the card should always be white before you take a reading. This means you will have to keep it covered and let it return to white before you take another reading.
 - When you are ready to take a measurement, hold the card so that the strip is up.
 - Count to ten very slowly and look at the ultraviolet sensor strip.
 - Compare the card's color to the color key on the card to gauge your measurement.
- 4. Pass out the Detecting UV Light Activity Sheet to the class and instruct students to complete it. Students will use three sources (newspapers, the Internet, and UV Detector Cards) to identify today's UV rating.
 - If possible, send students to computer workstations. Instruct them to navigate to the EPA website to locate the EPA's UV Index. Instruct students to complete the activity sheet.
 - **LOW-TECH OPTION:**  Provide students with a printout of the EPA's daily UV Index for your town. Also provide students with a color copy of the EPA's UV Index Scale.

Preparation

- ☀ Obtain UV Detector Cards
- ☀ Download Electromagnetic Spectrum Diagram, Diagram of UV Detector Card, and Rainbow Diagram from the accompanying website. Determine how you will display the diagram to the class (e.g., overhead or LCD projector).
- ☀ Download and make copies of the Detecting Ultraviolet Light Activity Sheet.
- ☀ Obtain at least one newspaper that contains a UV rating. The rating is typically located in the weather section.
- ☀ Set up computer workstations with Internet access to the following websites:
 - Environmental Protection Agency's website: <http://www.epa.gov/sunwise/uvindex.html>
 - National Weather Service Climate Prediction Center: http://www.cpc.ncep.noaa.gov/products/stratosphere/uv_index/uv_current.shtml,
 - UV-Forecast: <http://uv-forecast.com/>

LOW-TECH OPTION:

- ☀ Download and make copies of the Environmental Protection Agency's UV Index Scale with the daily UV rating.

1.2 Detecting Ultraviolet Light



5. Have students debate whether or not they think the school should require all outdoor activities to take place indoors on days when the UV index is greater than 11. Each side should get three arguments. Assign a student to moderate the debate. Assign a group of students to record this debate and keep notes of key points. After the debate, students should reflect upon what was said and determine who won.
6. For the next few weeks, have students report the UV index each day. As a class, decide if the UV index is too high to spend lengthy amounts of time outdoors. Introduce this to the class as democracy; all students will get a say in what they think is best for the class. Record the index each day in a chart; this information can be used to support the students' position on UV risk.
7. Introduce the campaign theme to this curriculum. Politicians generally begin a campaign with ideas of how they can help people. Talk about how being aware of the UV index can keep students safe and how it might be an issue important to the school that needs an advocate.

Assessment

On a sheet of paper students must define ultraviolet light (ultraviolet light is invisible light that can harm the skin). Then students must describe three ways to determine the UV Index on any given day (newspaper, Internet, UV Detector Cards).

NOTE:

You may want to work as a class to answer questions 2 and 3 on the Detecting UV Light Activity Sheet. The purpose of questions 2-4 is to help students learn the difference between the two UV Indices and how they are both useful, for different reasons. The Internet sources of UV Index are reliant on access to a computer and the Internet, which may not always be available. However, they give a more exact reading of the UV Index. The UV Detector Cards can be used anywhere as long as you have them with you (i.e., you are not dependent on access to a computer or the Internet). However, they do not give as exact a reading as can be found online.

1.3 What's My Skin Type?



Description

Students identify their skin type and describe how their skin reacts to the sun. Students describe how their skin reacts to the sun and identify their skin type. They learn how skin types, sun exposure, and skin damage are connected.

Activity

1. Using the unlabeled diagram of the sun, skin, and UV rays on the board, review the ways UV light can damage the skin. The sun's rays contain invisible light that travels from the sun to our skin. UVA light is the longest waved UV light, and it damages the skin's deeper layers. UVB light has a medium wavelength, and it damages the skin's surface. UVC light has the shortest wavelength but is blocked by the atmosphere's ozone and does not reach the skin.
2. Have students draw their own diagram of the sun, UV rays, and skin on a piece of paper and have them label their diagrams.
3. Explain that the more ultraviolet light a person is exposed to over time or the more bad sunburns a person gets, the greater a person's chance of developing skin cancer later in life.
4. Ask students if they know what determines how much ultraviolet radiation they receive? Explain that there are three main factors that affect the level of ultraviolet light a person receives on a regular basis and that influences their risk or chance for skin cancer:
 - Their skin type — How your skin reacts to the sun.
 - Their environment — Where you live (your climate, latitude, elevation).
 - Their behavior — If you protect yourself or not.
5. Tell students they have no control over their skin type or their environment (e.g., how many sunny days there are). But it is important to understand these two things in order to know how to protect your skin from the sun. Unit 1 will address the things that are not in our control (type and environment). Tell students that they do, however, have control over their own behavior. Units 2, 3, and 4 will address the three ways they can change their behavior to be sun safe:
 - Limiting time in the sun.
 - Wearing cover-up clothes.
 - Using sunscreen with an SPF 15 or higher.
6. Explain that in this lesson, they are going to learn about the first factor: their skin type. Tell students that skin type is determined largely by the way their skin responds to the sun. Skin, hair, and eye color are related to skin type, too.

Learning Outcomes

Students will be able to:

- ☀ Identify their skin type.
- ☀ Assess their risk for exposure to ultraviolet light and skin damage based on their skin type.

List of Supplies

- ☀ Chalkboard or chart paper
- ☀ Mirrors
- ☀ What's My Skin Type Worksheet
- ☀ Sun Diagram
- ☀ Photographs of different skin types

Preparation

- ☀ On the board or chart paper draw an unlabeled diagram of the sun, UVA and UVB rays and skin
- ☀ Download photographs of different skin types and determine how to display them.
- ☀ LOW-TECH OPTION: Download and print copies of photographs of different skin types.
- ☀ Download and print copies of the Skin Type Worksheet for each student.

1.3 What's My Skin Type?

7. Explain to students that skin color, hair color, and eye color are determined by how much melanin their bodies produce. Melanin is a brown pigment produced by their cells in their body. People whose body produces a lot of melanin have darker skin tones, darker eye color, and darker hair color.
8. Explain that a person's skin type—its lightness or darkness—should match one of the four groups more closely than the others. Display photographs of individuals with different skin types.
 - Display downloaded photographs of people with different types.
 - LOW-TECH OPTION: Display photographs of people from magazines representing each of the types.
9. Distribute mirrors and a copy of the Skin Type Worksheet to each student. Instruct them to determine their own skin type. To do this they will first answer the questions regarding their eye color, skin color, and hair color. Then students will use the table on the worksheet to identify their skin type.
10. After several minutes, have students cluster into four separate areas of the classroom designated as "Type 1," "Type 2," and so on, based on what skin type they have recorded on their worksheet. If a student's hair, eye, and skin color don't exactly match one of the four types, tell them that skin color takes the place of hair and eye color for classification purposes.
11. Record the number of students in each cluster after first checking that no one thinks they should switch groups after observing everyone else.
12. Have students create a pie chart based on the numbers of students in each group. Calculate what percent of the class is in each cluster. Based on the skill level of the students, instruct them to create more charts and graphs.
13. Discuss students' activity sheet answers and the class clusters using the following questions:
 - Are all four skin types represented in the class? If not, which ones are not represented? What is the most common skin type or types in the class?
 - What do the people in each of the groups have in common in terms of hair color, eye color, and skin tone? What patterns can we see? (People with blond hair usually have blue eyes and light skin; people with dark skin usually do not have freckles, etc.)
 - Are hair and eye color enough to tell what skin type a person is? (Not always.) What else do you need to know? (You need to know skin tone and how the skin reacts to sunlight.)
 - Can people with the same eye and hair color have different skin types? (Yes.)

1.3 What's My Skin Type?

- Why is it important to know your skin type? (If you know how your skin reacts to sunlight, you can take special care to protect it.)
 - Which groups need to be most careful in the sun? (Everyone needs to protect their skin from the sun, but people with Type 1 or Type 2 skin must take extra care to protect their fair skin.)
 - Why do people with light skin types need to be the most careful? (Since their light skin has little melanin to protect it, they have an increased risk for sun damage because they sunburn more easily. Increased risk means having a greater chance or possibility of something harmful happening, such as skin cancer, later in life.)
14. Using the created charts and calculated percentages, determine the sun damage risk of the class. Use this to set the tone for the campaign; determining a need gives students a platform.

Assessment

Instruct students to draw an XY axis on a sheet of paper. Students must label each quadrant with one skin type, i.e., Type 1 (fair skin), Type 2 (light skin), Type 3 (medium skin), and Type 4 (dark skin). Next, students must identify at least one characteristic of each skin type (i.e., Type 1 has very light skin and gets sunburned easily, etc.). Finally, students should plot themselves in the skin type quadrant they belong.

EXTENSION

Everyone's heritage is special. Plan a family tree activity in connection with this lesson. Have students use photographs to show the skin types in their families. Display the family trees in the classroom.

1.4 Pledge of Allegiance to My Skin Type



Description

In this lesson, students compose a pledge of allegiance to their skin type based on how their skin reacts to sunlight.

Activity

1. Ask students if they know what a pledge of allegiance is. A pledge of allegiance is a statement articulating a promise to something you believe in. For instance, students are probably most familiar with the national Pledge of Allegiance which is an oath to the U.S. flag. Another pledge of allegiance students may be familiar with is a pledge to the Earth or with the Cub Scout Promise. These are listed below.
 - Pledge to the Earth: I pledge allegiance to the Earth and all the life which it supports. One planet in our care, irreplaceable with substance and respect for all.
 - Cub Scout Promise: I, (name) promise to do my best, to do my duty to God, and my country, to help other people, and to obey the law of the pack.
2. Ask students to recite the national Pledge of Allegiance to the flag and have a student transcribe the Pledge on the board with assistance from his or her classmates.
3. Provide students with the Pledge of Allegiance Activity Sheet. As a class, use dictionaries to define the key words in the Pledge of Allegiance. Write the following words on the board or chart paper: pledge, allegiance, irreplaceable, and indivisible. Ask students to use their dictionaries to help define each word. As they do, decide as a class how to synthesize their answers into brief sentences that everyone can understand.
 - A pledge is a promise, an oath, or an agreement to do or refrain from doing something.
 - Allegiance means to be devoted to a particular group, person or cause.
 - Irreplaceable refers to something that cannot be replaced, a unique item for instance.
 - Indivisible means that it is unable to be divided or separated into parts.
4. Explain to students that the class is going to write a pledge of allegiance for their skin. Explain that they should follow the format of the national pledge as they write their pledge. An example follows: I pledge allegiance to my skin, to keep it healthy and protect it from too much UV light. One body of skin, irreplaceable, and important for my well-being. If possible, video or audio record the students reciting their pledge.

Learning Outcomes

Students will be able to:

Describe a sun protection measure specific for their skin type.

List of Supplies

- ☀ Chalkboard or chart paper
- ☀ Paper and pencils
- ☀ Pledge of Allegiance Activity Sheet

Preparation

- ☀ Download and make copies of the Pledge of Allegiance Activity Sheet from the website.
- ☀ Write the following questions on the chalkboard or on chart paper:
 - What promise can you make to protect your skin?
 - Are there certain promises that are specific for each skin type?
 - Why are you making a promise?
 - Will anyone be protected because of the pledge? Who?

1.4 Pledge of Allegiance to My Skin Type



5. Use the questions already written on the board or chart paper and provided below as a guide in crafting the class pledge.
 - What promise can you make to protect your skin?
 - Are there certain promises that are specific for each skin type?
 - Why are you making a promise?
 - Will anyone be protected because of the pledge? Who?

Assessments

Using the Pledge of Allegiance Activity Sheet, each student writes their own pledge based on their skin type. Have students share their pledges. If time allows, incorporate a Constructive Criticism Workshop using the instructions below as a guide

Constructive Criticism Workshop

1. Begin by arranging students in a circle. In a place visible to all, display the following sentence stems: I like..., This makes me wonder about..., and May I suggest.
2. Explain to the students that everyone is going to practice constructive criticism. Define what constructive criticism is. Constructive criticism is a way to suggest changes and improvements to another person's work so they can make it better. Explain to the students that a good way to offer constructive criticism is to use the sentence stems listed on the paper.
 - I like...
 - This makes me wonder about...
 - May I suggest....
3. Model the process for students using each of the sentence stems. For example, read a pledge that you created to the class.
4. Next, provide time for the students to use one of the sentence stems to make a critique of your pledge.
5. Take turns going around the circle allowing each student to critique your pledge.

2.1 Where in the World is UV Light the Strongest?



Description

Students investigate the ways latitude, elevation, climate, season, and time of day affect the amount of sun exposure they are susceptible to compared to other locations in the world.

Activity

1. Remind students that their type is only part of what determines how susceptible they are to sun exposure. Ask students to name things about where someone lives that may affect how much sunlight they receive? (Answers could include distance from the equator, number of sunny days, weather, pollution, and elevation).
 - Use the list below to explain the environmental factors that affect their risk for skin damage.
 - Use the corresponding diagrams found on the website to illustrate each of the environmental factors.
2. Explain to students today they will be learning that the amount of sunlight a place receives depends on its climate, season, elevation, and latitude.
3. Define the terms climate, season, elevation, and latitude as you walk around the classroom and introduce each learning station. Use the following information guide to lead your discussions.
4. Split students into groups to make an elevation diagram or model. Students can use materials provided to them or they can gather their own materials. Models should represent cities at different elevations.

Information Guide

Latitude

Using the globes, maps, atlases, or computers at the learning station, demonstrate latitude and how it affects the amount of sunlight a place receives. Use the following key points:

- Because the Earth's surface is curved some locations on Earth receive more direct sunlight (UV light) than others.
- Places near or at the equator (the imaginary line around the center of the Earth) receive more direct and strong sunlight. Therefore the temperatures here are typically hotter. (Use a globe, world atlases or a world map to show students where the equator lies)
- Places farthest from the equator receive sun rays that are more spread out and less intense. The North and South Poles receive less intense sunlight and the temperature is much cooler there.

Learning Outcomes

Students will be able to:

- ☀ List factors that affect the amount of ultraviolet light they receive.
- ☀ Describe how latitude, elevation, climate, season, and time of day affect their susceptibility to ultraviolet light.

List of Supplies

- ☀ Various materials for students to create an elevation diagram
- ☀ Globes, world maps, and/or world atlases (preferably enough for groups of four or five students to share)
- ☀ Computers with mapping software depicting world maps or a globe or an online atlas such as www.worldatlas.com/aatlas/world.htm or www.infoplease.com/atlas/

Preparation

(see next page)

2.1 Where in the World is UV Light the Strongest?



- Measures of how far away something is from the equator provide information about how intense the sun's UV rays are. To measure how far away something is from the equator, the Earth has been divided up into units of latitude and longitude.
- The equator is at 0 degrees latitude. Places that are located above the equator are said to have latitude between 0 and 90 degrees North. Places that are located below the equator are said to have latitude between 0 and 90 degrees South.
 - Using group maps, globes or world atlases, have students find the degree of latitude where they live (because of the scale of the map, this may need to be the state where they live. Students may need extra assistance locating their city or state and the latitude where they live.
 - If students have atlases and time allows, show them how to look up their location in the atlas index.
 - Have students locate the equator on the map and point out the distance from the equator to their home state or city.
- In the U.S., there are many more people with skin cancer in southern states closer to the equator than in northern states. People who live at lower latitudes (closer to the equator) are likely to receive more sun exposure.
- Of the three factors (e.g., climate, elevation, and latitude), latitude is the best indicator of how much sunlight an area receives.

Elevation

Lead a discussion on elevation and how it affects the amount of sunlight a place receives. Use the "elevation model" you've created on the wall to help the students grasp the concept better and highlight the following key points:

- Elevation is the number of feet above sea level (the ground floor) that a city or region is located.
- Sea level has an elevation of 0 feet, and sea level is the same all over the world. Point out the label on the floor and the picture of the ocean.
- Sea level is the standard starting point used to measure elevation.
- The higher the elevation the greater the number of feet above sea level.
- The lower the elevation, the smaller the number of feet above sea level.
- Elevation affects the amount of sunlight a region receives.

Preparation

- ☀ Read through the list of environmental factors influencing sun intensity provided in the lesson. Environmental factors include latitude, elevation, time of day, weather, climate and season.
- ☀ Collaborate with the school librarian to locate appropriate reference materials for learning stations. Work with the librarian to pre-teach how to use an atlas, an almanac or similar reference materials to look up information about environmental factors affecting sun exposure.
- ☀ Set up learning stations.
- ☀ Prepare an "elevation model" by placing a label with a picture of an ocean on the floor to represent sea level and markers for cities and mountains at various elevations on the wall.

2.1 Where in the World is UV Light the Strongest?



- The higher the elevation, the stronger the sun's rays are on your skin.
- At higher elevations, it is easier to get sunburn and damage the skin because the atmosphere is thinner and the sunlight does not have to travel as far to reach you. Even though the temperatures are colder at higher elevations, the sun's rays still can damage the skin. Discuss the protective eyewear and clothing individuals wear when they climb tall mountains. If possible, download some photographs of the protective eyewear from the Internet.

Climate

Lead a short discussion on climate and how it affects the amount of sunlight a place receives. Begin by describing the difference between weather and climate. Use the following points:

- Weather can change every day, but every place has a normal pattern of weather which is called climate.
- Not all places have the same types of climate. Some places have more rain and cloudy days and some have more sunny days than others.
- The more sunny days a region has, the more sunlight its people receive.
- The more cloudy days a region has, the less sunlight its people receive. The sun's rays can still get through the clouds. A person just receives less sunlight on cloudy days than on sunny days.
- Several factors affect the climate of an area, such as how close a place is to the equator (latitude), how far it is from the ocean, how far it is above sea level (elevation), and the Earth's position relative to the sun (this determines seasons).

Seasons

Lead a discussion on seasons and how they affect the amount of sunlight a place receives. Use the following key points: Seasons are related to the strength or concentration of the sun's rays.

- In the winter, the sun's rays are weaker and more spread out, since the Earth is tilting away from the sun. This makes the temperatures cooler.
- In the summer, sunlight is stronger and more concentrated, since the Earth is tilting towards the sun. This makes the temperatures warmer.
- A person still needs to protect their skin in the winter since the amount of sunlight a person receives adds up over a lifetime, no matter what season it is.

2.1 Where in the World is UV Light the Strongest?



Time of Day

Lead a discussion on how the time of day affects the amount of sunlight a person receives. Use the following points:

- The sun's rays are more intense between 10:00 a.m. and 4:00 p.m. This is when the rays are strongest or at the "peak" intensity. This time is referred to as the "peak sun hours."
- The sun's rays are most intense at midday when the sun is directly overhead. During peak sun hours, it is especially important to protect the skin from the sun because the sun's rays are the more direct. Therefore it is easier to get a sunburn or damage the skin during these times.

Assessment

Have students list all the various environmental factors affecting sun exposure (the environmental factors include latitude, elevation, weather and climate, season and time of day).

2.2 Campaign Whistle-Stop Tour

Description

Students plan a whistle-stop campaign that considers the intensity of sunlight at each stop.

Activity

1. In this activity, students are going to plan a Whistle-Stop Campaign Tour. Begin by defining and explaining the history of whistle-stop campaigns with the following points:
 - They are a style of political campaigning in which a candidate travels to many communities by train and gives speeches from the rear platform of the train.
 - Whistle-stop campaigns were popular when railroads were the most common form of long distance transportation.
2. Display photos of whistle-stop campaigns.
 - Display photographs of whistle stop campaigns on overhead or LCD projector.
 - **LOW-TECH OPTION:**  Pass around photographs of whistle-stop campaigns.
3. Explain to students that their job is to plan a campaign tour that considers how intense the sunlight will be at various stops along the way in order to plan a sun safe campaign. To make the tour sun safe, students will have to consider the environmental factors that influence the intensity of UV light at various geographic locations that they learned about in Lesson 2.1 (the environmental factors include latitude, elevation, time of day, weather and climate, and season).
4. Divide the class into small working groups and provide students with the Whistle-Stop Campaign Tour Activity Sheet. Explain the requirements for their whistle stop campaign tour:
 - Students will pick a city to research and will give a presentation of their city. Instruct students to consider relevant sun risk when choosing their city.
 - Students will collect information about their city:
 - Students work at computers to identify information.
 - **LOW-TECH OPTION:**  Students use reference materials provided to locate pertinent information.

Learning Outcomes

Students will be able to:

- ☀ List factors that affect the amount of ultraviolet light they receive.
- ☀ Describe how latitude, elevation, and climate affect the amount of ultraviolet light they are susceptible to.

List of Supplies

- ☀ Photographs of presidential candidates on whistle-stop campaigns
- ☀ Whistle-Stop Campaign Tour Activity Sheet
- ☀ Computer workstations with mapping software and Internet access
- ☀ **LOW-TECH OPTION:**  Art supplies

Preparation (see next page)

2.2 Campaign Whistle-Stop Tour



- Create a list and summary statement of the city on the whistle stop tour. Summary statements should include the following:
 - City's latitude
 - Elevation
 - Average number of sunny days per year
 - Best time of day to make a whistle-stop (sun safe time)
- A map labeling the whistle stop city on the tour.

Assessment

Each student group will present a whistle-stop tour map and a report that contains the following information on three different cities of their choosing:

- Latitude of the city
- Elevation of the city
- Average number of sunny days per year
- Best time of day to make the whistle stop

Preparation

- ☀️ **LOW-TECH OPTION:**  Download and print photographs of whistle stop campaigns from the website.
- ☀️ Set up workstations.
 - Collaborate with the school librarian to locate appropriate reference materials for learning stations. Work with the librarian to pre-teach how to use an atlas, an almanac or similar reference materials to look up the number of sunny days per year, latitude, and elevations of various cities.
 - Provide art supplies for map creation.
 - Download and print copies of the Whistle-Stop Campaign Tour Activity Sheet from the website.
- ☀️ Locate photographs of whistle-stop campaigns from the website and determine how you will display to class using an overhead or LCD projector.
 - Prepare computer workstations. Download digital copy of the Whistle-Stop Campaign Tour Activity Sheet . Ensure that computer workstations have mapping software or access to online maps and atlases such as <http://www.worldatlas.com/aatlas/world.htm> or <http://www.infoplease.com/atlas/>

2.3 Shade Task Force



Description

Students act as members of a Shade Task Force and investigate the quality of shade available on the school grounds. Students pay particular attention to shade available on and around playing fields.

Activity

1. Begin the lesson with a discussion of the role of elected officials. Elected officials are people who have been elected to a particular office. This happens at the local, state, and national level. As a class brainstorm a list of elected official positions. (President, Vice-President, Mayor, Governor, Senator, etc.).
2. Explain that once elected into office, elected officials are called upon to make decisions about issues that will affect a variety of individuals. Because elected officials have so many important topics to make decisions about they often have advisors or task forces that conduct research and provide information to help them make decisions.
3. Explain that in this lesson students will be acting as members of a Shade Task Force to collect information about the availability of shade on their school grounds.
4. Divide class into working groups of three to four students and instruct them to complete the following steps.
 - Identify the problem: Explain to students that their first step is to identify whether a problem exists or not.
 - Begin by brainstorming a list of shade sources on the school grounds and a list of the most popular locations on the school grounds.
 - Record both lists on the chalkboard or chart paper.
 - Help students determine whether these spots are the same.
 - Point out that this is an important piece of information. Ask if anyone knows why. (If there is not enough shade on the school grounds, especially in the most popular areas then students cannot use shade as a way to protect their skin from the sun.)
 - Map the Problem:
 - Students use software to create a map of the school grounds on a digital version of the Shade Task Force Activity Sheet. On the map, students locate and label the location of the shade sources and the location of popular outdoor locations.
 - LOW-TECH OPTION: Students draw a map of the school grounds on the Shade Task Force Activity Sheet. On the map, students locate

Learning Outcomes

Students will be able to:

- ☀ Identify sources of shade.
- ☀ Determine which shade sources provide the best protection from the sun's harmful rays.
- ☀ Identify which factors affect the quality and presence of shade (time of day, source of shade, etc.).
- ☀ Explain how it is possible to still get sunburned in the shade.

List of Supplies

- ☀ Computer with mapping software or graphic design software or Internet access
- ☀ LOW-TECH OPTION:  Art supplies for map making
- ☀ Measuring tapes
- ☀ Clipboards

Preparation

- ☀ Download and print copies of the Shade Task Force Activity Sheet from the website.
- ☀ Identify an area on the school grounds where students can evaluate shade availability.
- ☀ Obtain measuring tapes
- ☀ Prepare computer workstations with map making or graphic design software or an online atlas such as <http://www.worldatlas.com/aatlas/world.htm> or <http://www.infoplease.com/atlas/>.
- ☀ LOW-TECH OPTION:  Obtain art supplies for map-making.

2.3 Shade Task Force

and label the location of the shade sources and the location of popular outdoor locations.

- Evaluate the amount of shade available: Next students need to evaluate the amount and type of shade available. This step will require a trip outside at various times of the day to investigate the shade available on the school grounds. Instruct students to complete the table on the Shade Task Force Activity Sheet as they assess the following:
 - Amount of shade: How much area does the shade cover? How many people can use the shade at the same time? Students should use a measuring tape to determine the area of shade. They should also count the number of people that can be in the shade at the same time.
 - Quality of the shade: What is the shade source? How much sunlight comes through? Is the shade marked with spots or is it solid? How does the quality of shade change throughout the day? Are some shade spots only good in the morning? Is it a permanent shade structure or temporary?
 - Accessibility of shade: How close are the shade sources to popular outdoor locations? How difficult is it to use the shade source? (For example, does a fence restrict access?) Do you have to go out of your way to seek shade when you are on the playground or bus stop?
5. Once student work groups have completed their work, provide time for the students to share their work with other groups and discuss the similarities and differences of their findings.

Assessment

Students create an information poster in which they describe which shade source at their school provides the best protection from the sun's harmful rays. Student posters should include information on the amount of shade provided by this source, the quality of the shade, and accessibility of the shade source to all students.

This assessment creates an opportunity for students to collect research for the policy memo they will later write.

TEACHER TIP:

The school doesn't have to be the subject of the poster. Consider having students create their posters based on other known locations for some variety.

2.4 Shade Policy Memo



Description

Students use data they collected in Lesson 2.3 to generate policy recommendations to improve the quality of shade available on their school grounds. Students compose a memo to the school administration with policy recommendations.

Activity

1. Explain that students are going to use the data collected in Lesson 2.3, Shade Task Force Activity Sheet, to draft a policy memo to the school administration.
 - Have a student look up the words “policy” and “memo” in the dictionary. As a class, decide on a group meaning for both words. They should also decide how they will work together to include their recommendations for ways to improve the quality of shade available on the school grounds.
 - Put the class definition of “Policy Memo” on chart paper in the room for all to see.
2. With Shade Task Force Activity Sheets out, have students reconvene in their working groups (created in Lesson 2.3) and complete Part II of the worksheet.
3. Identify biggest shade problem: Instruct students to use the data collected in Lesson 2.3 and recorded in Part I of the Shade Task Force Activity Sheet to determine what they think is the biggest shade problem.
4. Identify and list policy alternatives: After students have identified the problem, each group should come up with proposed solutions to the problem. Solutions might include building a shade structure on the playground, educating students about playing in already available shady spots, shifting the recess times to non-peak sun hours, etc.
5. Evaluate the policy alternatives generated by each of the working groups: List each of the proposed solutions on the board and have each team present their idea. Provide time for questions and answers and for students to discuss each of the proposed solutions. Ultimately each student group should decide on what they think the best policy recommendation is based on what they deemed the biggest shade problem (this can vary by group).
6. Prepare a Policy Memo to school administration: Provide students with Policy Memo Activity Sheet. Explain to the class what a memo is (it is a short business letter to group members about a specific issue) and how it is used in school settings. Working together, students should include the following in their final policy memo:

Learning Outcomes

Students will be able to:

- ☀ Assess factors affecting the quality and presence of shade.
- ☀ Identify ways to improve the quality of shade available on school grounds.
- ☀ Explain how and why their solution will solve the problem.

List of Supplies

- ☀ Shade Task Force Activity Sheet
- ☀ Shade Policy Memo Activity Sheet (either digital or printed copies).

Preparation

- ☀ Obtain Shade Task Force Activity Sheet.
- ☀ Prepare computer workstations; download digital version of Shade Policy Memo Activity Sheet.
- ☀ **LOW-TECH OPTION:**  Download and print copies of the Shade Policy Memo Activity Sheet.

2.4 Shade Policy Memo



- Statement of the problem (i.e., is it a lack of shade, a lack of students using the shade, not enough shade, etc.).
- Visual representation of the problem (map with labels describing the situation).
- Description of suggested policy solution including a description of how and why this policy will correct the problem.
- Students use word processing software and mapping or graphic design software to create a final policy memo.
- LOW-TECH OPTION: Students write reports on paper and include a drawing that diagrams the current problem.

Assessment

Student groups present their policy memos to the administration or to the rest of the class. The teacher checks to see that each group presents the statement of the problem, a visual representation of the problem, and a description of their suggested policy solution.

3.1 My Outdoor Activity Chart



Description

In this lesson, students record: their outdoor activities, the amount of time they spend outdoors, the type of clothing they wear for outdoor activities and whether they wear sunscreen.

Activity

1. Distribute Outdoor Activity Chart worksheet to each student.
2. Review the instructions on the activity sheet with the students. They will be recording information about their outdoor activities for up to one week. Allow students five minutes each morning to fill out the activity chart for the previous day. During the school week, at least some of the outdoor activities will be the same for the entire class. Have students keep the charts at school to help prevent loss.
3. Compile data from day one into the class table.
4. Discuss the results of the worksheet with the following questions:
 - What time of day is the most popular for playing outside? Ask students if the popular outdoor time coincides with peak sun hours (between 10:00 a.m. and 4:00 p.m.). Remind students that the sun is most intense during these hours.
 - What activity is the most popular? Ask students whether they could participate in the same activity in the shade? Why or why not?

TEACHER TIP:

Recording this information on electronic versions of the chart might make it easier to keep things organized and for students to analyze findings.

Assessment

Teacher checks to see that each student completed their Outdoor Activity Chart.

Learning Outcomes

Students will be able to:

- ☀ Identify the outdoor activities they participate in on a regular basis.
- ☀ Identify what type of clothing they typically wear outside.
- ☀ Compute the average amount of time spent outside daily.

List of Supplies

- ☀ Outdoor Activity Chart
- ☀ Board or chart paper with table drawn for class

Preparation

- ☀ Download and make copies of the Outdoor Activity Chart.
- ☀ Draw a table on the board or chart paper with the following column headings: Activity, Time of Day, Clothing, Shade, Sunscreen, and Weather

3.2 What Were You Wearing Outdoors?



Description

Students look at what they were wearing in their Outdoor Activity Chart entries. Students learn that clothing is a sunscreen and that wearing cover-up clothing is a second way to reduce sun exposure.

Activity

1. Ask students to take out their completed Outdoor Activity Chart and examine the clothing data they have recorded on the activity chart.
2. Using the following questions, lead a discussion on what students were wearing when out in the sun:
 - What types of clothing were you wearing?
 - What types of hats, if any, were you wearing?
 - Why did you choose the clothes you did?
 - Do you think the clothing you were wearing helped protect your skin from the sun's rays? How much of your skin did your clothing cover?
 - What could you have worn to be more covered up? Would each of these options have been practical for the activity you were doing or the time of year you were doing it? Why or why not?
 - Why is it important to wear hats outside? How can they protect you? What kind should you wear?
3. Summarize the class trends and discuss how the season of the year influences clothing choice.

TEACHER TIP:

There is a hat diagram on the website highlighting the best type of hat for protecting against the sun.

4. Summarize this activity by telling students that wearing cover-up clothing is the second way to be sun safe (seeking shade is the first way to be sun safe).

TEACHER TIP:

Depending on weather, certain sun safe clothes might not be popular (because it's too warm) at the time of the lesson. Talk about how to stay covered while staying cool as well.

Assessment

Ask the students to draw a picture of themselves outside on a sunny day. What type of activity will they be doing? What type of clothing would they wear to protect themselves from the sun? What type of hat would they wear? The teacher checks to see that students include hats, long-sleeved shirts, pants, and shoes

Learning Outcomes

Students will be able to:

- ☀ Define clothing as a type of sunscreen.
- ☀ Assess what they typically wear outdoors.
- ☀ Identify cover-up clothing as the second way to reduce sun exposure.

List of Supplies

- ☀ Completed Outdoor Activity Chart from Lesson 3.1

Preparation

- ☀ Provide students with their completed Outdoor Activity Chart from Lesson 3.1

3.3 Writing a Sun Safety Bill



Description

In this lesson, students compose a sun safety bill regarding the right to wear hats on the school grounds.

Activity

1. Explain to students what a bill is. A bill is a proposal about an important issue that gets presented to Congress to consider passing into law. If Congress passes the bill and the President signs it, then it becomes a law. You could briefly explain a veto here. Before bills can be presented to Congress, they must be written. But even before bills are written, the idea or problem that the bill is addressing must be researched. After that, the bill is written following a specific bill format.
2. Explain to the class that they are going to write a bill regarding the right to wear hats on the playground. Hats protect skin and eyes from sun damage. Some schools have banned the wearing of hats for various reasons, one being that wearing hats indoors is generally considered disrespectful.
3. Divide the class into five groups and explain that each team will lobby for or against a bill to wear hats. Have one student from each group draw a Special Interest Position Statements out of a hat for their group to represent. The five positions are hat manufacturer, sun safety expert, classroom teacher, pro-hat parent, anti-hat parent. Have them work together to come up with the points they will make to support their special interest. They'll be lobbying the Senators as individual stakeholders and they can practice persuasion/advocacy.
4. Provide everyone with the School Hat Bill Activity Sheet and have them complete it.
 - Send students to computer workstations and have them complete a digital version of the School Hat Bill Activity Sheet.
 - **LOW-TECH OPTION:**  Provide students with paper copies of the School Hat Bill Activity Sheet
5. Once each team has written their bill, have them exchange their School Hat Bill with another group. Explain to students that they are going to evaluate each other's bills. Explain that the process of sharing and evaluating the bills represents how members of the House of Representatives provide their version of a bill to the Senate to evaluate (and vice versa). Explain that the creation of bills is a back and forth process with a lot of negotiation involved.
6. Provide groups with the Hat Bill Evaluation Activity Sheet and instruct them to use it to evaluate each other's bills.

Learning Outcomes

Students will be able to:

- ☀ Describe how wearing a hat helps protect people from the sun's harmful rays.

List of Supplies

- ☀ School Hat Bill Worksheet
- ☀ School Hat Bill Evaluation Worksheet
- ☀ School Hat Bill Special Interest Position Statements
- ☀ Computer workstation set up with access to the kid-friendly version of the House of Representatives website at: <http://kids.clerk.house.gov/grade-school/lesson.html?intID=17> or <http://bensguide.gpo.gov/3-5/lawmaking/index.html> to demonstrate how a bill becomes a law.

Preparation

- ☀ Download and make copies of the School Hat Bill Activity Sheet for class.
- ☀ Download and make copies of the School Hat Bill Evaluation Activity Sheet for class.
- ☀ Download and make copies of each of the position School Hat Bill Special Interest Position Statements.
- ☀ Locate and download a current bill using the United States Congressional Bills website: <http://www.gpoaccess.gov/bills/index.html>

3.3 Writing a Sun Safety Bill



7. Reconvene the class and have a discussion about special interests and how they influence what people advocate for. Have a member from each of the groups read off their position statements. Lead a discussion about how this influences what each person advocates for. Or have each of the special interest lobbyists introduce themselves to the class and explain what they are fighting for. Ask students what it would take to convince your group to change your mind about a position.

Assessment

Make copies of "Billy's Bill" passed in California (there is a link to the online version of the bill on the SDHW website) and have students debate it. After the debate, have students write a paragraph critically analyzing the bill and both pros and cons that would apply to their school.

4.1 Congressional Hearing on Sunscreen Labeling



Description

In this lesson, students prepare a short speech advocating for stricter sunscreen labeling standards.

Activity

1. Review the differences between UVA and UVB sunlight and how each affect skin.
 - UVA rays penetrate the deep layers of the skin.
 - UVB rays penetrate the surface of the skin.
2. Explain to students that this lesson is based on a change in regulations within the Federal Food and Drug Administration (FDA) regarding sunscreen labeling. The FDA is a governmental agency that administers laws on food and drug safety.
3. Explain the sunscreen labeling issue to students. Instruct them to take notes regarding the different sides of the issue as you discuss the debate. The key aspects of the debate include the following:
 - Sun Protection Factor Label (SPF): SPF indicates the amount of time the sunscreen will be effective in protecting skin from the sun's rays. The previous labeling standards informed users about how well the sunscreen protects against UVB light. The new standards would include how well the product protects against both UVB and UVA light.
 - Other sun protection options: The other change to the labeling standards is the inclusion of a statement saying there are other sun protection methods including the wearing of protective clothing and limiting time in the sun.
4. Explain to students what a congressional hearing is and the purpose of congressional hearings:
 - Congressional hearings are an opportunity for the general public to speak to the lawmakers. Sometimes these speeches are called testimonies. At the local level, citizens often go to city council or county commission hearings and tell their elected officials how they feel about different topics.
 - Congressional hearings as well as city council hearings are regularly held in the process of creating new laws and regulations.
 - The purpose of a congressional hearing is to collect and study information in the early stages of law making.
5. Explain that students will be creating a short speech or testimony to be given in a congressional hearing being held regarding sunscreen labeling.

Learning Outcomes

Students will be able to:

- ☀ Distinguish between the effects of UVA and UVB sunlight on the skin.
- ☀ Describe how sunscreen lotion and lip balm provide UV protection.

List of Supplies

- ☀ Sunscreen Label Hearing Activity Sheet
- ☀ Stopwatches
- ☀ Chalk board or chart paper
- ☀ Examples of products with warning labels
- ☀ Examples of different sunscreen bottles
- ☀ Computers with Internet access
- ☀ LOW-TECH OPTION:  Printed copies of health statistic

Preparation

- ☀ A few days before the lesson, ask students to bring in packages of products with warning labels or special ratings on them.
- ☀ Familiarize yourself with the new U.S. Food and Drug Administration's (FDA) sunscreen regulations. More information can be found at the FDA's website: www.fda.gov/forconsumers/consumerupdates/ucm258416.htm
- ☀ Prepare computer workstations for Internet research. Bookmark the following websites:

4.1 Congressional Hearing on Sunscreen Labeling



6. Provide students with Sunscreen Label Hearing Activity Sheet. Explain to the students the format of congressional hearings including the following key aspects:
 - Hearings are held in public locations.
 - The elected officials are present to hear the public's testimonies. The public officials usually sit at the front of the room facing the audience.
 - Speeches or testimonies are generally limited to three minutes.
 - At the beginning of the testimony, the person testifying is asked to state their name and where they live.
7. Explain to students the key points they must address in their three minute presentation. These include the following:
 - Their name and address.
 - A sentence or two explaining why they think the proposed changes should be accepted (or not).
 - A statistic about the relationship between sunscreen and skin health.
 - Students use the Internet to identify an appropriate sunscreen and skin health statistic. It is recommended to use the websites utilized earlier in the unit.
 - **LOW-TECH OPTION:**  Provide students with printed copies of reference materials to find an appropriate sunscreen and skin health statistic.
8. Help students compose their statements by posting the following sentence stems on the board or on chart paper.
 - I represent
 - I am (not) in favor of (make sure students address both changes).
 - The reason I am (not) in favor is...
9. Provide time for students to identify their sunscreen statistic and to compose their testimony.
10. Pair students and have them practice their testimony. Provide stopwatches and have students time each other.

Assessment

Students hold a classroom "congressional hearing." As the moderator, the teacher checks to see that each student's testimony contains information about how sunscreen and lip balm acts as valuable sun protection.

- www.cdc.gov/cancer/skin/basic_info/prevention.htm
- www.skincancerprevention.org.
- www.cancer.org/Cancer/CancerCauses/SunandUVExposure/SkinCancerPreventionandEarlyDetection/skin-cancer-prevention-and-early-detection-u-v-protection

Or you could use the following EPA source on skin cancer facts for your state -- www.epa.gov/sunwise/statefacts.html

The EPA's Kids Home Tour at www.epa.gov/kidshometour/ is a fun way to learn about the dangers of chemicals in the home. Highlight the sections that focus on hazardous material labeling and how to use products with chemicals.

- ★ **LOW-TECH OPTION:** Identify and print out sunscreen and health statistics. Recommended websites include:
 - http://www.cdc.gov/cancer/skin/basic_info/prevention.htm, www.skincancerprevention.org and <http://www.epa.gov/sunwise/statefacts.html>
 - Print out select screens from the EPA's About Labels Page at <http://www.epa.gov/pesticides/kids/hometour/labels.htm> to show students how to read hazardous warning labels and point out special instructions on how to use certain household products.
- ★ Download and print copies of the Sunscreen Label Hearing Activity Sheet.

4.2 What Do You Think About Sunscreen?



Description

Students survey parents, teachers, PTA members, and peers on their thoughts about sunscreen and using it at school. Students analyze results to inform and support sun safety policy decisions.

Activity

1. Ask students about the experiences they've had taking surveys. What do surveys tell us? How can they be used to inform policy decisions? What makes a good survey?
2. Tell students that using sunscreen lotion and lip balm is another way to be sun safe. Sunscreen provides extra protection when shade and clothing do not provide enough. Combined with avoiding peak sun hours and staying in the shade, wearing cover-up clothing and using sunscreen makes you the most sun safe.
3. Have students design a short survey about sunscreen use to distribute to various people including parents, teachers, PTA members, etc. Before they start writing questions, they should determine the goal of the survey – what is it they want to know?
4. As a class brainstorm survey questions. Once a list is developed, assign questions to students to type. Put the entire list of questions together to create one survey. Have students take the survey and then discuss what revisions need to be made. Sample questions include: How important do you think it is to wear sunscreen every day? Would you be willing to contribute money to create a school sunscreen fund? On a typical day, do you provide sunscreen before you go outside? Do you think sunscreen labels should...?
5. Have students distribute the final version of the survey to various people and then collect the finished copies. Students should be prepared to explain participants' role in completing the survey as they hand them out.

Assessment

Students create tallies of answers from complete surveys to create a final report with the results.

Learning Outcomes

Students will be able to:

- ☀ Describe how sunscreen lotion and SPF lip balm can help reduce sun exposure.
- ☀ Interpret data to find real-world connections.

List of Supplies

- ☀ Computers with word processing software

Preparation

- ☀ Obtain samples of surveys to use as examples.

5.1 Sun Safety Commissioner



Description

In this lesson, students create a campaign to be the classroom Sun Safety Commissioner. Students use information they have learned about shade, sun safe clothing, sunscreens, and sun safety to create their campaign platform.

Activity

1. Explain to the students that it is election season and there is a position that needs to be filled -- The classroom Sun Safety Commissioner. Elected officials are responsible for ensuring that their constituents' needs are being met. In the case of the Sun Safety Commissioner, the Commissioner's duties will include the following:
 - Ensure that students are protected and as sun safe as possible at all times.
 - Listen to students' ideas and concerns about sun safety; i.e., are there adequate shade opportunities on school grounds, concerns about the sun safe clothing, and issues about sunscreen usage.
 - Voice concerns and ideas about sun safety to the school leadership.
 - Help to maintain a high quality of sun safe opportunities throughout the school.
 - Educate the people (peers, family members, community members, etc.) about the importance of sun safety.
2. Each student will be responsible for either crafting a campaign to run for the Commissioner or for helping a classmate prepare to run for office. Students will have to create a campaign platform that communicates why they are an ideal candidate for the position.
3. Divide the class into working groups based on the number of students that want to run.
4. Explain campaign expectations. Candidates for Sun Safety Commissioner will communicate their positions using posters. Posters should include items from the list below. Candidates may create multiple posters to get their messages across:
 - A statement that sums up the candidate's general belief about their purpose as commissioner, i.e. what the candidate believes in.
 - A statement regarding their beliefs about shade, sun safe clothing, and sunscreen. Provide an example to help the students get started (I believe that everyone deserves the right to shade on the playground, bus stop, and soccer field, free access to sunscreen, and sun safe school uniforms).

TEACHER TIP:

Refer students back to most recent public election to relate to that campaigning process.

Learning Outcomes

Students will be able to:

- ☀ Describe how shade, sun safe clothing, and sunscreen contribute to sun safety.

List of Supplies

- ☀ Computers with design software
- ☀ LOW-TECH OPTION: Art supplies
- ☀ Sun Safety Campaign Activity Sheet

Preparation

- ☀ Obtain examples of campaign posters and propaganda to display to the class.
- ☀ Locate example campaign slogans on the website and determine how to present to the class.

5.1 Sun Safety Commissioner



- A list of actions the candidate supports and plans to work towards achieving if elected into office. These are sometimes called campaign promises. Each candidate should have one action item for each of the following:
 - Shade
 - Sun safe clothing
 - Sunscreen

Examples might include working with school officials to provide more covered picnic shelters on the playground or educating teachers about the benefits of shade.

- A list of actions that the candidate is opposed to and will work towards eliminating or correcting if elected into office. For example, the candidate might be opposed to the lack of free sunscreen available in each classroom.
 - A campaign slogan.
 - Optional: A plan for how to pay for the program. For example, a fundraiser for a shade structure.
5. As a class, brainstorm to help students come up with ideas for each component of their platforms.
 6. Provide students with the Sun Safety Commissioner Campaign Activity Sheet to help organize their thoughts. Have students complete them in their working groups.
 7. Describe an "elevator speech" to the class and the importance of being able to make a point quickly and clearly. Have students practice giving elevator speeches to a partner before making presentations to the entire class.

Assessment

Have each student present his or her platform to the class. The teacher checks to see that each student's platform includes a statement about the candidate's belief about shade, sun safe clothing, and sunscreen with at least one action the candidate proposes to support to improve sun safety. The class votes on who they want to be the commissioner based on presentations.

Extension

If time and resources allow, have the students create a multimedia campaign in addition to the posters. For example, students could record a commercial or an audio jingle to be played for the rest of the school. Also, let students get creative with their campaign materials and if possible provide the resources for creating items like buttons, ribbons, etc.

5.2 Sun Safety Constitution and Bill of Rights



Description

In this lesson, students create a Sun Safety Constitution and Bill of Rights for their classroom.

TEACHER TIP:

Incorporate this unit to tie in with government or history lessons already taught or being currently studied.

Activity

1. Explain that the U.S. Constitution is a special document that was written in 1787. It was written to show how the government works including how the three branches of government operate, which means the Presidency, Congress, and the Supreme Court. All other laws that are made in the U.S. must follow the rules set up in the Constitution. This means that it is the highest law in the United States. The first ten amendments or changes to the Constitution include special rights or freedoms that are given to the people of the U.S. This section is called the Bill of Rights.
2. Discuss the similarities between laws in the Constitution and a classroom's rules. Use the following questions to guide the discussion.
 - Name one classroom or school rule?
 - What or who does the rule protect?
 - Are there also classroom rights or freedoms?
 - What are they and who do they protect?
 - What would happen if these rules and rights did not exist?
 - Can a rule or law help some people but not other people at the same time? How?
3. Explain that, students are going to create a Sun Safety Constitution, like the U.S. Constitution, that protects them from the sun's harmful effects. Write the following question on the board or chart paper:
 - What kinds of rules do we need in our classroom to protect us from the sun's harmful rays?
4. Divide the class into teams and provide time for them to generate lists of either five rules or five rights that they think will help protect the class from the sun's harmful rays. Instruct teams to use the following questions as a guide as they create their rules and rights:
 - What or who does the rule or right protect?
 - Would the rule or right hurt anyone? If so why?
 - What would happen if the rule or right did not exist?
 - Is the rule or right practical and doable?
 - Who will enforce the rule or right?

Learning Outcomes

Students will be able to:

- ☀ State sun safe rules and rights that help protect their skin from the sun's rays.

List of Supplies

- ☀ U.S. Constitution with focus on the Bill of Rights
- ☀ Chart paper
- ☀ Writing paper
- ☀ Writing supplies
- ☀ Set up computer stations with http://www.americaslibrary.gov/jb/nation/jb_nation_bofright_1.html loaded for students to read the background of the creation of the Bill of Rights.
- ☀ LOW-TECH OPTION: Print out a hard copy of text from http://www.americaslibrary.gov/jb/nation/jb_nation_bofright_1.html for students to read about the creation of the Bill of Rights.

Preparation

(see next page)

5.2 Sun Safety Constitution and Bill of Rights



5. Reconvene the class and share the rules and rights. Discuss which rules and rights the class wants to keep, modify, or toss out.
6. Once rules have been finalized, compile them into a singular written document and have students sign the Sun Safety Constitution and Bill of Rights.

Assessment

Students compose a paragraph describing how sun safety rules and rights can help them protect their skin from the sun's harmful rays.

EXTENSION

Compare and contrast the signing of the U.S. Constitution to the signing of the Sun Safety Constitution. Take a picture of the class as they sign the Sun Safety Constitution. Either print copies and distribute to the class or project the photograph on an LCD projector so that everyone can see it. At the same time, distribute or project Howard Chandler Christy's Scene at the Signing of the Constitution painting. Ask students to compare the two events. An interactive version of this painting is available online at <http://teachingamericanhistory.org/convention/christy/>. This version shows the names of Constitutional Delegates when users place a cursor tip on each person depicted in the painting.

Wrapping it Up

At the conclusion of the unit, have students discuss next steps to take for sun safety at school. Based on presentations made, data collected, and lessons learned students should be able to report on what else could be done.

Have a discussion about what to do if the principal declines policy recommendations. Talk about ways to be sun safe at school even without a formal policy (eg. start a sun safety club). Brainstorm ways that the class could share what they learned with younger students so that they can be sun safe and advocate for policies as well.

Preparation

- ☀ Obtain copies of the U.S. Constitution to display in the classroom. There are many online versions available for downloading, including the following:
 - http://www.archives.gov/exhibits/charters/bill_of_rights.html
 - Draft version of the Constitution with margin notes written by George Washington: <http://memory.loc.gov/cgiin/ampage?collId=mgw4&file Name=gwpage097.db&recNum=232>
 - tickets.constitutioncenter.org/ncc_edu_The_Bill_of_Rights.aspx
 - <http://ratify.constitutioncenter.org/constitution/>
 - Additional background for how to teach concepts of the Constitution are available for teachers on Thomas, the Library of Congress Website at: http://www.loc.gov/teachers/classroommaterials/primarysourcesets/constitution/pdf/teacher_guide.pdf#zoom=100

Activities Section

Lesson 1.2 - Detecting UV Light Activity Sheet Mock-up

Lesson 1.3 - Sun Diagram Mock-up

Lesson 1.3 - What's My Skin Type Worksheet Mock-up

Lesson 1.4 - Pledge of Allegiance Activity Sheet Mock-up

Lesson 2.2 - Whistle-Stop Campaign Tour Activity Sheet Mock-Up

Lesson 2.3 - Shade Task Force Activity Sheet Part 1

Lesson 2.4 - Shade Task Force Activity Sheet Part 2

Lesson 2.4 - Shade Policy Memo Activity Sheet Mock-up

Lesson 3.1 - Outdoor Activity Chart Mock-up

Lesson 3.3 - School Hat Bill Special Interest Position Statements

Lesson 3.3 - School Hat Bill Worksheet Mock-up

Lesson 3.3 - Hat Bill Evaluation Activity Sheet Mock-up

Lesson 4.1 - Sunscreen Label Hearing Activity Sheet Mock-up

Lesson 5.1 - Sun Safety Commissioner Poster Activity Sheet Mock-up

Detecting UV Light Activity Sheet Mock-up



1. What does the UV Index measure?
2. Complete the table below using information from the EPA's UV Light Index website, <http://www.epa.gov/sunwise/uvindex.html>, to learn how the EPA measures UV Light.

UV Index Number	Exposure Level	Description of Level & Sun Safety Tips

3. Using a UV Detector Card, conduct a simple experiment to learn how you can detect UV Light.
 - First, draw two pictures of the UV Detector Card on a piece of paper. Label one picture A.M. and the other one P.M.
 - Next, using the UV Detector Card, take one reading in the early morning and one at 1 P.M. or later. The reading can be taken outside or in a window.
 - Each time, have students color the UV Card picture the way the real card appears when exposed to the sun.
 - Answer the questions: How are they different? Why are they different?
4. How does the EPA UV Light Index compare to the UV Detector Card index?

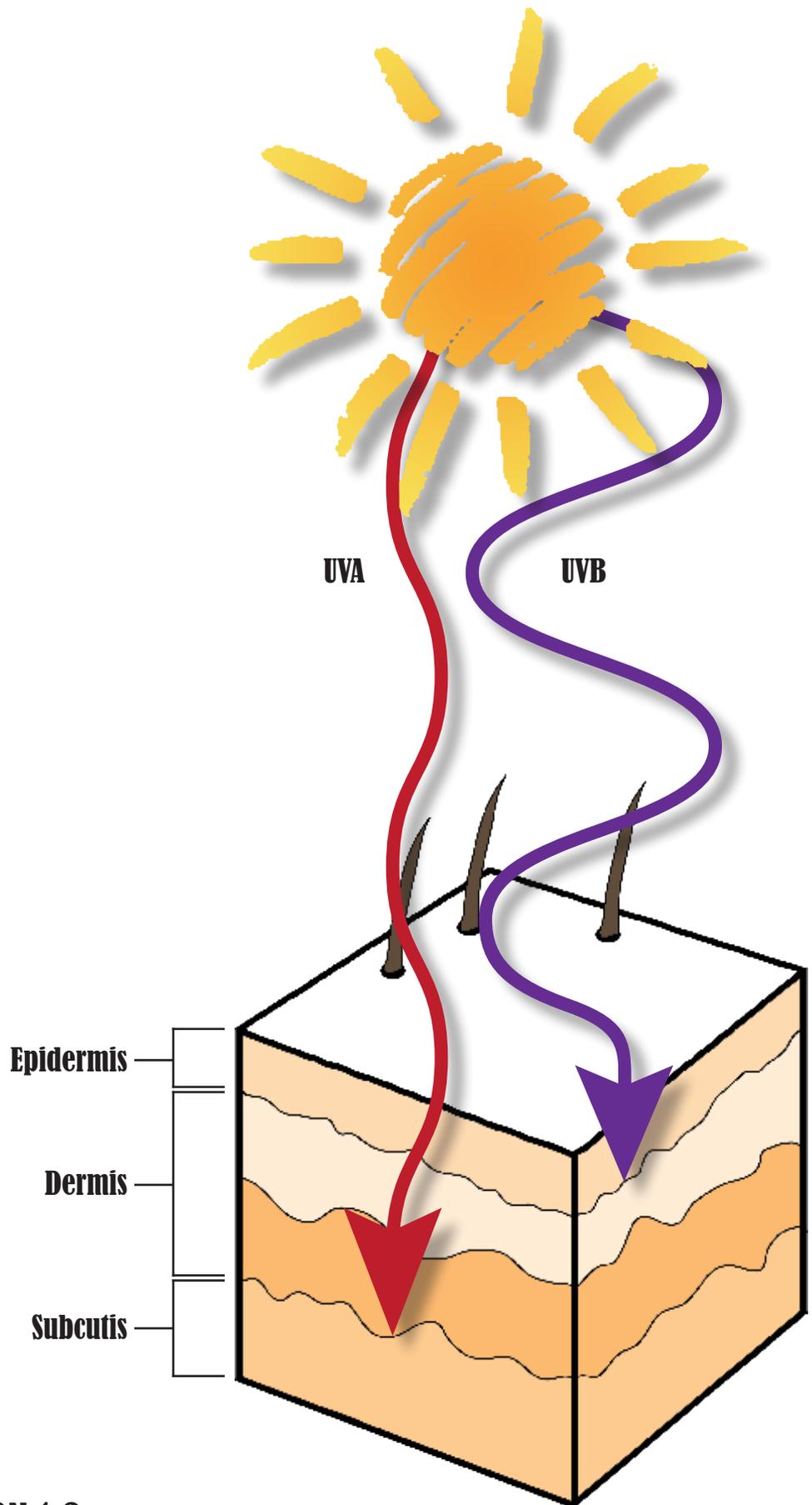
Detecting UV Light Activity Sheet Mock-up



5. Use a newspaper, the Internet, and your UV Detector Card to complete the following table.

Today's Date: _____

Source of UV rating	UV rating	Benefits of using this measuring device
Newspaper (write in name of newspaper) _____		
UV-Forecast.com http://uv-forecast.com/		
Local TV Station Weather Page (link: _____ _____)		
EPA Sunwise website www.epa.gov/sunwise/uvindex.html		
National Weather Service Climate Prediction Center www.cpc.ncep.noaa.gov/products/stratosphere/uv_index/uv_current.shtml		
UV Detector Card		



What's My Skin Type Worksheet Mock-up



1. The color of my eyes are: _____
2. The color of my hair is: _____
3. The color of my skin is: _____
4. When exposed to the summer sun at midday for 15 minutes, my skin: _____

Skin Type (circle one)	Skin Color in Unexposed Area	Hair Color	Eye Color
Type 1: Never Tans/ Always Burns	Pale or milky white, freckles	Red or blonde	Blue, green, or hazel
Type 2: Sometimes Tans/ Usually Burns	Very light brown, sometimes freckles	Blonde or light brown	Blue, green, or hazel
Type 3: Usually Tans/ Sometimes Burns	Light tan, brown or olive; distinctly pigmented	Light or dark brown	Hazel or brown
Type 4: Always Tans/ Rarely Burns	Brown, dark brown, or black	Dark brown or black	Brown

Pledge of Allegiance Activity Sheet Mock-up



Define the following words:

1. Pledge
2. Allegiance
3. Irreplaceable
4. Indivisible

Answer the following questions:

5. What promise can you make to protect your skin?
6. Are there certain promises that are specific for your skin type?
7. Why are you making a promise?
8. Will anyone be protected because of the pledge? Who?

Write your pledge below:

Whistle-Stop Campaign Tour Activity Sheet Mock-Up



A. Choose a city that could be part of a whistle-stop campaign and fill in the information about it in the table below.

List the source where you found this information (for example, list the name of the website or the name of the book and the author) _____

City	Latitude	Elevation	Average number of sunny days per year	Best Time of Day for Stop
Example: <i>New York City, NY</i>				

B. Draw a map and pinpoint where your chosen city is located.

C. Write a brief summary of why this city would make a good stop on a campaign tour.

Shade Task Force Activity Sheet Mock-up



PART I

Shade Availability

Take a tour of the school grounds and complete the following table and drawing. Note that it may be helpful to visit selected shade sources at different times of the day.

Shade Source (location)	Time of Day evaluated	Area of shade	# of people that can be in shade at one time	Quality of the shade (spotted/solid)	Best time of day to use shade	Accessibility of the shade

Shade Task Force Activity Sheet Mock-up



Map of Shade Availability

Draw a map of the school grounds and highlight shade spots.

TEACHER TIP:

If available, students can use Google Maps to get a street view image of the school grounds.

PART II

Identification of Shade Problem

Based on the data you have collected, what is the school's biggest shade problem? (For example, are there not enough shady places, is it an access problem? Is the quality of the shade only good at certain times of the day?)

How do you know that this is the biggest problem?

Policy Recommendations

- Use your map and your answers to **Part I** of the worksheet to think about a shade plan that you would like to recommend to the school's leaders. This will be your policy recommendation.
- Use the table below to organize your policy recommendations.
- Be as descriptive as possible when explaining your recommendations.
- Come up with at least three recommendations for the shade problem you are addressing.
- Explain how your suggested recommendations will try to solve the problem.

Biggest Shade Problem	Policy Recommendation Immediate	Describe how the shade will be used	Policy Recommendation Future	Describe how the shade will be used
Our school grounds have no shade other than shadows made from the building.	Add umbrellas to the picnic tables.	Students can eat lunch under the umbrellas.	Plant trees that will grow to provide shade.	Students can play or read under the trees at recess.

Shade Policy Memo Activity Sheet Mock-up



Guidelines for Writing the Policy Memo

In groups, use the information from the completed Shade Task Force Activity Sheet to write a policy memo to school leaders recommending a policy to improve the school's shade.

Use the following memo template to organize your thoughts before you compose your policy memo to the school administration.

Remember, you are trying to convince the school leaders that there is a problem that needs attention. Be sure to use information that will catch the leaders' eyes and help make your point.

Policy memos include factual data (for example, be sure to say how much shade there is and how good or how bad it is).

Tell a good story in your memo and be sure to say how this information will affect the lives of students.

Once groups have written the memo, each should present theirs to the rest of the class. Presenters should be able to clearly state what it is their policy memo aims to achieve. Have the class vote on the policy they think to be most important for their school.

The class should brainstorm an effective way to present the chosen policy memo to school leaders.

Shade Policy Memo Activity Sheet Mock-up



Memo

To: _____,

Your group's logo here

From: _____

Provide your contact information

Date: _____

Subject: _____

Paragraph 1: State the purpose of your memo. (For example, you could say, "I am writing to you because...")

Hint: Be sure to describe why the school needs to address the problem.

Paragraph 2: Provide just the facts. (For example, you could open this paragraph by saying, "The Facts are...")

Hints:

- Provide facts -- For example say how many students could be helped with better shade, how many students use the school grounds each day, what sort of risks for sun damage exist without increased shade sources.
- Provide a picture of the problem -- This could be in the form of a map or graph.

Paragraphs 3, 4, and 5: After your picture, describe your proposed policy recommendation. (For example, you could say, "I propose that you...")

Hints:

- List at least three policy recommendations (make one paragraph for each policy recommendation).
- How will your policy recommendations address the problem?
- How much shade will your policy provide (in terms of total area and/or in terms of the number of students that can access the shade)?
- Do you have any evidence that this sort of policy has helped other school grounds?

Paragraph 6: Summarize the problem and why it is in the interest of the school leadership to address it. (For example, you could say, Finally, I would like to summarize my key points by saying...")

Paragraph 7: Conclude by thanking the leaders for addressing this very important matter.

Finally, add your name to the bottom of the memo and mark your initials to show that you have read and approved what was written.

Outdoor Activity Chart



Keep a record of each activity that you do outside during daylight hours every day for a week. Mark the answers to the following questions for each activity each day (see boxes.) If you have more than three outdoor activities in one day, write on the back of the activity sheet or use another sheet of paper.

Questions to answer for each activity:

1. What activity were you doing?
2. What time were you outside?
3. What was the weather like?
4. What clothing were you wearing? (Don't forget to describe hats and shoes.)
5. Were you in the shade? If so, for how long and what was the source of the shade?
6. Were you wearing sunscreen?

Example:

Date: January 28, 2015

Day of the week (circle one): M T W TH SAT SUN

Season of the Year (circle one): Spring Summer Fall

My Location (city, state): Denver, Colorado

Activity 1: <u>I took my dog, Asa for a walk in the park.</u>
Out from: <u>9:15</u> <u> </u> p.m. to <u>10:00</u> <u> </u> p.m.
Weather: _____
My clothing: <u>I was wearing a jacket, long-sleeved shirt, jeans,</u> <u>and tennis shoes.</u>
In shade: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Sunscreen: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Name: _____



Date: _____

Day of the week (circle one): M T W TH F SAT SUN

Season of the Year (circle one): Winter Spring Summer Fall

My Location (city, state): _____

Activity 1: _____

Out from: _____ a.m./p.m. to _____ a.m./p.m.

Weather: _____

My clothing: _____

In shade: Yes No Sunscreen: Yes No

Activity 2: _____

Out from: _____ a.m./p.m. to _____ a.m./p.m.

Weather: _____

My clothing: _____

In shade: Yes No Sunscreen: Yes No

Activity 3: _____

Out from: _____ a.m./p.m. to _____ a.m./p.m.

Weather: _____

My clothing: _____

In shade: Yes No Sunscreen: Yes No

Intention: A bill to allow students to wear hats on the playground

Hat Manufacturing Industry

You represent the hat manufacturing industry. If hats are banned from school, you stand to lose a lot of money which might put your business in trouble. You strongly believe that hat wearing should be mandatory.

Sun Safety Expert

You have a medical degree and specialize in skin cancers and strongly believe that people should always protect their skin from the sun's UV light. From your medical studies, you know that skin cancers on the head and neck are generally much more serious than skin cancer located elsewhere on the body. Therefore you think it is important that students have the right to wear hats and advocate that it be mandatory that all students wear hats outside at all times. You believe that students can be trusted to keep their hats put away and only wear hats to and from school or when they are outside on the playground. The banning of hats from schools makes it impossible for students to protect themselves from sun damage.

Classroom Teacher

You are a classroom teacher and have a lot of concerns about hat wearing at school and think that wearing hats should be banned from school. First, hats are often used to represent connections to gangs and you are concerned about increases in gang activity if hats are allowed on school grounds. Second, if hats are allowed at school, but only outside, you will have to act as the hat police, which will give you a lot more work to do. You don't believe that teachers should be hat police.

Anti-hat Parent

You represent some of the parents of the students in your school. You believe that a bill requiring hat wearing at school is a violation of your child's right to freedom of expression, a First Amendment right in the U.S. Constitution.

Pro-hat Parent

You represent some of the parents of the students in your school. You believe that a bill either requiring or banning hat wearing at school is a violation of your child's right to freedom of expression, a First Amendment right in the U.S. Constitution.

Pro-hat Students

Anti-hat Students

TEACHER TIP:

There is no prompt for the students' special interest position to allow for them to get creative and determine their own points.

TEACHER TIP:

Consider printing an individual page out for each group with just their position and ample room to write additional comments.

Proposed Legislative Bill Name

By: name of student writing bill

Co-Sponsors: names of the legislative co-sponsors – the other group members

Purpose of the bill: Describe in complete sentences why you think the bill should be enacted.

Provisions: Describe in complete sentences what you want to have happen and how.

Financial Considerations: Give examples of things related to enforcing this bill that may cost something.

Oversight for the bill: Describe in complete sentences who will enforce and monitor the proposed bill if it is accepted into law.

Date the Bill should take effect: choose effective date

Hat Bill Evaluation Activity Sheet Mock-up



Use the questions below to evaluate the School Hat Bill:

Whose bill are you evaluating: _____

Who are you representing: _____

- Hat manufacturer
- anti-hat parent

- sun safety expert
- teacher

- pro-hat parent
- self as student

1. Who would this bill help?

2. Who would the bill hurt (who stands to lose something if the bill is made into a law)? If a group is hurt by this, what will they lose? Why?

3. What would happen if this bill becomes law?

4. What changes would need to be included in this bill to meet your needs (so that you would vote for it)?

Problem language in the bill (what you disagree with)	Suggested changes to problem

Survey the Shade Data Collection Worksheet



5. In the space below, use the template to write a short memo to the group whose bill you are evaluating and clearly state recommendations they need to make.

Memo

To: _____,

Your group's logo here

From: _____

Provide your contact information

Date: _____

Subject: _____

Paragraph 1: State the purpose of your memo. (For example, you could say, "I am writing to you because...")

Paragraph 2: Provide just the facts. (For example, you could open this paragraph by saying, "The Facts are...")

Paragraphs 3: Describe your proposed changes to the bill . (For example, you could say, "I propose that you...") Make sure to explain why these changes should be made and how they will improve the bill.

Paragraph 4: Summarize the problem and why it is in the interest to make these changes.

Paragraph 5: Conclude by thanking the bill sponsors for addressing this very important matter.

Finally, add your name to the bottom of the memo and mark your initials to show that you have read and approved what was written.

LESSON 3.3

Sunscreen Label Hearing Activity Sheet Mock-up



Fill out this chart with the main points on sunscreen labels and how the current label is different from the old one.

Items on Label	What is it	Current Label	Previous Label
SPF			
Alternative sun protection methods			

1. Why am I for or against the changes to the sunscreen label?

2. Select one of the following statements and list the people the label will either help or not help:

2a. I think the new label will help the following people...

2b. OR, I think the new label will not help the following people...

3. Why do you think that the new label will or will not help these people?

Sun Safety Commissioner Poster Activity Sheet Mock-up



Posters need to include the following items:

- A campaign slogan.
- One belief statement (about shade, sun safe clothing or sunscreen).
- One action statement (that corresponds to the belief statement featured on the poster).
- Something visually catchy to help connect people to your belief statement using pictures.

Use the table to organize your poster.

	General Statement of Belief	Actions I propose to support if elected	Actions I am opposed to
Shade			
Sun Safe Clothing			
Sunscreen			

Campaign Slogans

Think of rhyming words or catchy phrases for shade, sunscreen, and sun safe clothing. For example, "The sun is BLAZING, so don't be a RAISIN. Use a broad spectrum sunscreen of SPF 15 or higher."

