

# Fun in the Sun?

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**Grade Level** 6  
**Duration** 2 class periods

**National Standards**  
**GEOGRAPHY**  
**Element 5: Environment and Society**  
15. How physical systems affect human systems  
**Element 6: The Uses of Geography**  
18. How to apply geography to interpret the present and plan for the future.

**AZ Standards**  
**ELA**  
**Writing**  
**Production and Distribution of Writing**  
**8.W.4** Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.  
**MATHEMATICS**  
**Math Practices**  
8.MP.4 Model with Mathematics

**Arizona Social Science Standards**  
**GEOGRAPHY**  
**The use of geographic representations and tools helps individuals understand their world.**  
8.G1.1 Use geographic tools and representations to analyze historical and modern political and economic issues and events. Key tools and representations such as maps, globes, aerial and other photos, remotely sensed images, tables, graphs, and geospatial technology  
**Global Interconnections and spatial patterns are a necessary part of geographic reasoning.**  
8.G4.1 Take an active stance on a geographic issue reflecting its scale (local, regional, state, national, or global)

## Overview

An awareness of how to prevent skin cancer is important for everyone. One in every five Americans develops skin cancer. An estimated 80% of lifetime sun exposure occurs before the age of 18. Therefore, it is never too young to teach about how to protect oneself from the sun.

## Purpose

In this lesson, students will learn which states have the highest rates of skin cancer and then create a choropleth map of the United States that illustrates this information. They then will determine if there is any correlation between skin cancer rates and location of a state.

## Materials

- Colored pencils
- United States Map (with names)  
<https://geoalliance.asu.edu/sites/default/files/maps/US-NAMES.pdf>
- 20 States with the Highest Rates of Skin Cancer worksheets
- Sun safety tips *Sunwise* [www.epa.gov/sunwise](http://www.epa.gov/sunwise)

- Example of finished choropleth map

## Objectives

The student will be able to:

1. Identify their risk for getting skin cancer.
2. Create a choropleth map using real world data.
3. Identify scale of an issue upon which they are taking a stance.
4. Identify ways to protect oneself from too much exposure to the sun.

## Procedures

### SESSION ONE

1. Introduce the lesson by asking students, “What is skin cancer? Do you know someone who has been diagnosed with skin cancer? Did this person express how they got this form of cancer?”
2. Now ask students, “What are ways to protect yourselves from the sun?” Answers may include:
  - a. Limit time in the sun.
  - b. Seek shade.
  - c. Always use sunscreen.
  - d. Wear a hat.
  - e. Cover up.

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- f. Wear sunglasses.
  - g. Watch the UV index.
  - h. Avoid sunlamps and tanning parlors.
  - i. Wear long-sleeves and pants.
3. Point out to students that where someone lives is a factor in the rate of skin cancer cases throughout the United States.
  4. Distribute the 20 States with the Highest Rates of Skin Cancer worksheets, colored pencils, and a U.S. map and work through the Steps 1-4. Collect up worksheets and maps at the end of the session.

Sun Wise School Program: [www.epa.gov/sunwise](http://www.epa.gov/sunwise)

*The Burning Facts* EPA 430-F-01-015

*Mission: Sunwise* EPA 430-K-00001

## SESSION TWO

1. Return the 20 States with the Highest Rates of Skin Cancer worksheets and have students look at the Writing Assignment. Explain the writing prompt and how the PSA will be graded.
2. Allow time for students to create their PSAs in groups or individually. If time, have some groups share their PSAs.

## Assessment

### Geography and Mathematics

Map work can be graded for accuracy and inclusion of a legend. Mastery will be considered 90% or higher.

### Geography

The 20 States with the Highest Rates of Skin Cancer worksheets can be graded for accuracy and completeness. Mastery will be considered reasonable answers on questions 1-4 under Step 3.

### ELA and Geography

The PSA can be graded using the Writing Assignment Scoring Guide. Mastery will be considered 80% or higher.

## Extensions

Students can use UV beads to make bracelets to wear outside to remind them about UV radiation. They can experiment with them during cloudy days and sunny days.

Students can experiment with sun lotion with different SPFs. A UV Frisbee can be used. Students smear different sun lotions on various places on a shower cap placed on a Frisbee, and then observe the results over a period of a few days.

## Sources