



# SunSafe in the Middle School Years

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## TEACHER'S MANUAL: CLASSROOM ACTIVITIES



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## Project Background

*SunSafe in the Middle School Years* is designed to improve sun protection behaviors of middle school students (10- to 13-year-olds). Originally developed in 2000, SunSafe in the Middle School Years was developed and tested using funding provided by the National Cancer Institute, and the project was directed by Ardis Olson, M.D. At the time, the project worked with schools, coaches, town recreation programs, parents, and health care providers in 10 communities throughout Vermont and New Hampshire.

This multi-component intervention demonstrates that community members can serve as role models and educators to change youth sun protection actions and reduce skin cancer risks. Findings from the original study include<sup>i</sup>:

- Youth in the intervention communities were more likely to use sunscreen and to apply it more thoroughly than those in the control communities.
- Youth in the intervention communities reported receiving sun protection advice from more adults than those in the control communities.
- Youth in the intervention communities protected more of their body from the sun than those in the control communities.

## Why Middle School Students?

Middle school is an important time to work with youth. During this age, youth are making more independent health behavior choices but are still willing to listen to adults' advice and are still influenced by the role modeling of parents, teachers, and coaches.

- 80% of lifetime sun exposure occurs before age 18.<sup>ii</sup> Only 35% of middle school students protect themselves from sun damage.
- In 2019, 66% of VT middle school students reported having at least one sunburn in the past 12 months. The percent of students who had sunburns increased with each grade level.<sup>iii</sup>
- One or more blistering sunburns in childhood or adolescence doubles the risk of developing melanoma later in life.<sup>iv</sup>
- 84% of middle school youth understand protecting themselves from sun damage can prevent skin cancer. However, less than one third (29%) use sunscreen and only 7% wear a hat (data from baseline of study – unpublished).

## Why Schools?

- Youth spend most of their time at school and in school sponsored activities.
- Physical education classes, outings, and sports sponsored by schools are conducted outdoors, exposing youth to UV radiation.
- Health, science, and other curriculum offer opportunities to educate youth about harm from UV radiation and skin cancer. Sun protection messages can be linked to relevant classroom subjects.
- Teachers and school personnel also need protection from UV radiation while participating in school sponsored events or classes, making a perfect opportunity for the students to learn by observing their teachers practicing sun safe behaviors.
- Students, teachers, and staff can all benefit from schools following the seven recommendations provided by the CDC to prevent skin cancer.

## Guidelines for School Programs to Prevent Skin Cancer

The CDC developed the following seven recommendations for school programs to follow to prevent skin cancer.

1. Establish policies that reduce exposure of students and staff to UV radiation.
2. Provide an environment that supports sun-safety practices.
3. Provide health education to teach students the knowledge, attitudes, and behavioral skills they need to prevent skin cancer.
4. Involve family members in skin cancer prevention efforts.
5. Include skin cancer prevention with professional development of staff.
6. Complement and support skin cancer prevention with school health services.
7. Periodically evaluate whether schools are implementing the skin cancer prevention guidelines.

These recommendations were first published in 2002 by the National Center for Chronic Disease Prevention and Health Promotion, the report can be read in its entirety at <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5104a1.htm>.

The summary of these recommendations can be found on the following CDC website: [www.cdc.gov/cancer/skin/what\\_cdc\\_is\\_doing/guidelines.htm](http://www.cdc.gov/cancer/skin/what_cdc_is_doing/guidelines.htm).

## Program Goals

Skin cancer is the most common type of cancer, and its occurrence is increasing at an alarming rate. The goal of SunSafe in the Middle School Years is to educate youth and adults who interact with them about the dangers of overexposure to the sun. By delivering the sun safety message in a variety of ways, you are helping us promote behaviors that will reduce the risk of developing skin cancer.

## Classroom Activities

The classroom activities listed in this section were developed by SunSafe in the Middle School Years or adapted from the SunWise School Program, developed by the Environmental Protection Agency (EPA). The SunWise Program is now run by the National Environmental Education Foundation (NEEF). The NEEF SunWise Program materials can be found at [www.neefusa.org/sunwise](http://www.neefusa.org/sunwise).

Most of these activities include two components with one component per page. The first page is designed for the activity instructor(s). The second page is designed for the students.

We encourage you to review the activities listed on the next page that align with your classroom's focus and modify them as needed. In addition, we encourage you to visit the SunWise website ([www.neefusa.org/sunwise](http://www.neefusa.org/sunwise)), download a copy of the full toolkit in English or Spanish, or teach students about sun safety in your own way. There is no limit to the ways the sun and UV rays can be incorporated into classroom activities.

## Art Activities

- SunWise Flyer<sup>1</sup>
- What's In a Hat?<sup>2</sup>

## English Activities

- SunWise Virtual Vacation<sup>1</sup>
- Sun Mythology<sup>1</sup>
- Sun Scoop<sup>1</sup>
- The Sun Shines Around the World<sup>1</sup>

## Health and Physical Education Activities

- Me and My Shadow<sup>2</sup>
- Personal Skin Assessment<sup>1</sup>
- SunSafe Beach Party<sup>1</sup>

## Math Activities

- SunWise Word Problems<sup>1</sup>
- Bargain Shopper<sup>1</sup>

## Science Activities

- Sun: Friend and Foe<sup>2</sup>
- Detecting UV Light Using Tonic Water<sup>1</sup>
- Sun Mythology<sup>1</sup>

## Social Studies Activities

- What's In a Hat?<sup>2</sup>
- SunWise Virtual Vacation<sup>1</sup>

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<sup>1</sup> This activity was adapted from the SunWise Program toolkit.

<sup>2</sup> This activity was developed by SunSafe in the Middle School Years.

	Subject the Activity Corresponds to					
	Art	English	Health and PE	Math	Science	Social Studies
SunWise Flier	x					
What's in a Hat?	x					x
SunWise Virtual Vacation		x				x
Sun Mythology		x			x	
Sun Scoop		x				
The Sun Shines Around the World		x				
Me and My Shadow			x			
Personal Skin Assessment			x			
SunSafe Beach Party			x			
SunWise Word Problems				x		
Bargain Shopper				x		
Sun: Friend and Foe					x	
Detecting UV Light Using Tonic Water					x	

Download *SunSafe in the Middle School Years* resources:  
<https://cancer.dartmouth.edu/cancer-community/resources>

<sup>i</sup> Ardis L. Olson, Cecelia Gaffney, Pamela Starr, Jennifer J. Gibson, Bernard F. Cole, Allen J. Dietrich; SunSafe in the Middle School Years: A Community-wide Intervention to Change Early-Adolescent Sun Protection. *Pediatrics* January 2007; 119 (1): e247–e256. 10.1542/peds.2006-1579.  
<https://doi.org/10.1542/peds.2006-1579>

<sup>ii</sup> Cleveland Clinic (2022). Ultraviolet Radiation and Skin Cancer.

<https://my.clevelandclinic.org/health/diseases/10985-ultraviolet-radiation>

<sup>iii</sup> Vermont Department of Health. (2020). 2019 Vermont Youth Risk Behavior Survey Report, 173.

[www.healthvermont.gov/sites/default/files/documents/pdf/CHS\\_YRBS\\_statewide\\_report.pdf](http://www.healthvermont.gov/sites/default/files/documents/pdf/CHS_YRBS_statewide_report.pdf)

<sup>iv</sup> Skin Cancer Foundation. (2021). Sunburn & Your Skin. [www.skincancer.org/risk-factors/sunburn/](http://www.skincancer.org/risk-factors/sunburn/)