



SunAWARE™ For Life Program

Fostering Health & Wellness Through SunAWARE™ Actions
Grades 3-5

Curriculum Team

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National Health Education Standards alignment with the SunAWARE™ Program:

The National Health Education Standards (NHES) were developed to establish, promote, and support health-enhancing behaviors for students in all grade levels—from pre-Kindergarten through grade 12. The NHES provide a framework for teachers, administrators, and policy makers in designing or selecting curricula, allocating instructional resources, and assessing student achievement and progress. Importantly, the standards provide students, families and communities with concrete expectations for health education.

The Children’s Melanoma Prevention Foundation’s SunAWARE™ Program directly aligns with the National Health Education Standards, allowing for easy, justifiable implementation into educational programs to support youth health. The overarching goal of the SunAWARE™ Program is to provide students with the information and skills needed to identify the relationship between safe sun protection practices and the reduction of the risk of children’s melanoma, to enhance and promote personal health.

NHES Standard 1 - Students will comprehend concepts related to health promotion and disease prevention to enhance health.

NHES Standard 2 - Students will analyze the influence of family, peers, culture, media, technology, and other factors on health behaviors.

NHES Standard 3 - Students will demonstrate the ability to access valid information, products, and services to enhance health.

NHES Standard 5 - Students will demonstrate the ability to use decision-making skills to enhance health.

NHES Standard 8 - Students will demonstrate the ability to advocate for personal, family, and community health.

Performance Indicator (PI) 1.5.1 Describe the relationship between healthy behaviors and personal health.

Other National Health Education Standards and their accompanying performance indicators are referenced within each lesson sequence of the SunAWARE™ Program.

Goal: Through information and awareness activities, students will understand the need, and become motivated, to reduce unprotected UV exposure, thus reducing the risk and incidence of skin cancer.

Objectives:

1. Students will understand how ultraviolet radiation intensity is linked to planetary movement.
2. Students will understand the relationship of melanin to skin type and sun sensitivity.
3. Students will understand that over exposure to ultraviolet radiation can be detrimental to health. They will be able to demonstrate an understanding of the proven methods of sun protection.

Materials: flashlight, earth model, UV Index map, skin types chart, shadow rule, body map, sunscreens, sun protective clothing, sunglasses, etc.

Visuals:

- UV Rays illustration
- Skin Types chart
- Shadow Rule illustration
- UV reflectance and standard photographs showing freckles and sunscreen application
- Sunscreen Label illustration
- Body Map

Vocabulary: ultraviolet radiation, ozone layer, pigment, melanin, freckles, mole, skin cancer, broad spectrum, water resistant

Opening Motivator: How many of you have ever had a sunburn?

Lesson Sequence:**I. Factors that Affect Ultraviolet Radiation^a**

1. Use a flashlight to represent the sun and ultraviolet radiation types to demonstrate the variation in wavelengths and their impact on the skin.
2. Use an earth model and a flashlight to demonstrate variation in UV intensity caused by the Earth's tilt and planetary movement including rotation and revolution. Include concepts of seasons, time of day, weather, ozone depletion, altitude, latitude and surface characteristics.
3. Introduce UV monitoring tools including the UV Index, UV Apps and Shadow Rule.
4. Use UV Rays Illustration to demonstrate the three types of ultraviolet radiation and the impact of the ozone layer on intensity.

(^aNHES 2, PI 2.5.6- Students will describe ways that high tech and low-tech tools, such as UV Index Apps, can be used to track UV levels to avoid overexposure and ensure appropriate UV protection.)

II. Factors that Affect Skin Sensitivity^b

1. Introduce concepts of variations in pigmentation in the skin and eyes that include the role of melanocytes in producing pigment and providing protection from sunburn and sun damage.

2. Utilizing the Skin Types chart illustrate varying pigmentation and response of the skin to UV B (burning) rays.

3. Identify signs of sun sensitivity including skin color, eye color, freckling tendency, and mole count and characteristics of moles.

(^bNHES 5, PI 5.5.4 - Students will predict potential outcomes of sun exposure for each skin type in the Skin Types Chart.)

III. Skin Changes Secondary to UV exposure^c

1. Describe changes on the skin related to exposure to UVA (tanning) rays and UVB (burning) rays including tan and sunburn.

2. Describe freckles and identify common locations, characteristics, and significance.

3. Describe moles including time of development, location, characters, significance of changes, and tracking method.

(^cNHES 5, PI 5.5.6- Students will be able to recognize changes on their skin secondary to UV exposure and make health related decisions to promote health.)

IV. Proper Sun Protection^{d,e}

1. Explore the impact of culture and trends on fashion and its impact on sun exposure behaviors.

2. Introduce the concept of sun protective gear including regular and specialized clothing and sunglasses. Define Ultraviolet Protection Factor (UPF), a rating system for sun protection clothing.

3. Demonstrate the variation in degrees of sun protection provided by various hats, specialized clothing, and sunglasses.

4. Discuss sunscreen labeling including Sunburn Protection Factor (SPF), broad spectrum, water resistance, dose and reapplication.

5. Illustrate different sunscreen vehicles in relation to dosing, application, safety, etc.

(^dNHES 2, PI 2.5.2- Students will identify the influences various cultures and fashion trends throughout different countries and historical time periods have had on the practices of sun protection versus sun exposure.)

(^eNHES 3, PI 3.5.1- Students will identify the characteristics of valid and safe sun protection gear by analyzing the SPF on the sunscreen labels and UPF on garments.)

V. SunAWARE™ Acronym^f

Review the rationale and significance of “AWARE” for sun protection and skin cancer prevention. Utilize the SunAWARE™ rap song to illustrate action steps.

Avoid *unprotected* exposure to sunlight, seek shade, and never indoor tan.

Wear sun protective clothing, including a long-sleeved shirt, pants, a wide-brimmed hat, and sunglasses year-round.

Apply recommended amounts of broad-spectrum sunscreen with a sunburn protection factor (SPF) ≥ 30 to all exposed skin and reapply every two hours, or as needed.

Routinely examine your whole body for changes in your skin and report concerns to a parent or healthcare provider.

Educate your family and community about the need to be SunAWARE™.

(NHEHS 8; PI 8.5.2- Students will inform and encourage others about sun exposure, its inherent risks, sun protection, and self-examinations, to help support others in making positive health choices in avoiding skin cancer.)

Closure

1. Review in acronym the 5 “AWARE” action steps utilizing SunAWARE™ rap song.
2. Emphasize that the “E” is for “educating others”.
3. Enlist students as SunAWARE Ambassadors charged with educating their families and friends about sun protection and skin cancer prevention.

Reflection

1. Thinking back on a previous sunburn incident, what would you do differently to protect yourself from sunburns and over exposure?
2. Did you learn anything new? If so, can you share the information with friends and family?

Assessment Based on Objectives

1. Performance on the Grades 3-5 SunAWARE™ Post-Test
2. Performance on independence practice sheets and extension lesson activities.
3. Review formal teacher evaluation and follow up, if needed.

Special Needs Adaptations

1. Use large print for handouts.
2. Provide Special Needs Aides with guidance to reinforce lesson in school environment.
3. Use visuals such as an Earth model, flashlight, sun protective gear to reinforce lesson.
4. Involve special needs students interactively in lesson presentation.
5. Select from videos listed on “Teacher Resources” below.
6. Partner special needs and non-special needs students for activities.

Plan for Independent Practice

1. SunWise Toolkit from National Environmental Education Foundation:
<https://www.neefusa.org/sunwise2>
2. SunSmart America from Richard Kahn Melanoma Foundation
<https://melanomafoundation.com/sunsmart-america-resources/>
3. Spot Toolkit from American Academy of Dermatology
<https://assets.ctfassets.net/1ny4yoiyrqia/6Pqr1ETQIS1vzmPLhDS3pM/5893178aa1cbf92360f6e0e5aa303894/childrens-sun-safety-toolkit.pdf>
4. Be Sunbeatable Sun Safety Program for Grades 2-5. Developed by MD Anderson Cancer Center available thru Scholastic.

Extensions

1. SunWise Toolkit from National Environmental Education Foundation

Additional Cross-curricular Connections

1. Math: use of math factorials as they relate to SPF calculations.
2. Language Arts: use of SunAWARE™ books for discussion and as writing prompts.

Teacher Resources

Articles:

The Community Guide: Skin Cancer: Primary and Middle School-Based Interventions: Available at: <https://www.thecommunityguide.org/findings/skin-cancer-primary-and-middle-school-based-interventions>

The Important Role of Schools in the Prevention of Skin Cancer, Gery P. Guy, Jr, PhD, MPH, Dawn M. Holman, MPH, and Meg Watson, MPH (2018) Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6048593/>

Is Sunscreen Safe and Effective for Your Child, OPED, Maryellen Maguire-Eisen, published May 20, 2019. Available at: <https://patch.com/massachusetts/hingham/skin-protecton-remains-critical-amid-extended-fun-sun>

Ultraviolet Radiation Exposure and its Impact on Skin Cancer Risk, Seminars in Oncology Nursing, Vol 32. No.3 (August) 2016. Watson, M, Holman, D, Maguire-Eisen, M. Available at: <https://www.melanomaprevention.org/index.php/what-we-do/educate/additional-resources>

Skin Cancer: A Growing Health Problem for Children, Seminars in Oncology Nursing, Vol 29:206-213, 2013. Maguire-Eisen, M. Available at: https://www.melanomaprevention.org/images/sidebar/Skin_Cancer_A_Growing_Health_Problem_for_Children.pdf

Children's Books with Accompanying Lesson Plans:

Danger at Graves Light, Barrow, Mary Mills and Maryellen Maguire-Eisen, available free Epub link <https://www.melanomaprevention.org/index.php/what-we-do/educate/sunaware-resources>

Prom Prep 101, Barrow, Mary Mills and Maryellen Maguire-Eisen, available free Epub link <https://www.melanomaprevention.org/index.php/what-we-do/educate/sunaware-resources>

Wiseheart Saves the Dawn, Maguire-Eisen, Maryellen and Jane Shanny, available free Epub link <https://www.melanomaprevention.org/index.php/what-we-do/educate/sunaware-resources>

What are these Spots on my Skin? Naughton, Scott, available free Epub link <https://www.melanomaprevention.org/index.php/what-we-do/educate/sunaware-resources>

Videos:

SunAWARE™ Rap

<https://www.youtube.com/watch?v=JYNCg1Zy2Og&feature=youtu.be>

Holderness Family Sun Dance

https://www.youtube.com/watch?time_continue=2&v=SvHCxr4QkFQ

SunAWARE™ Dance Craze

<https://www.youtube.com/watch?v=o-00WKZ8ctY&feature=youtu.be>

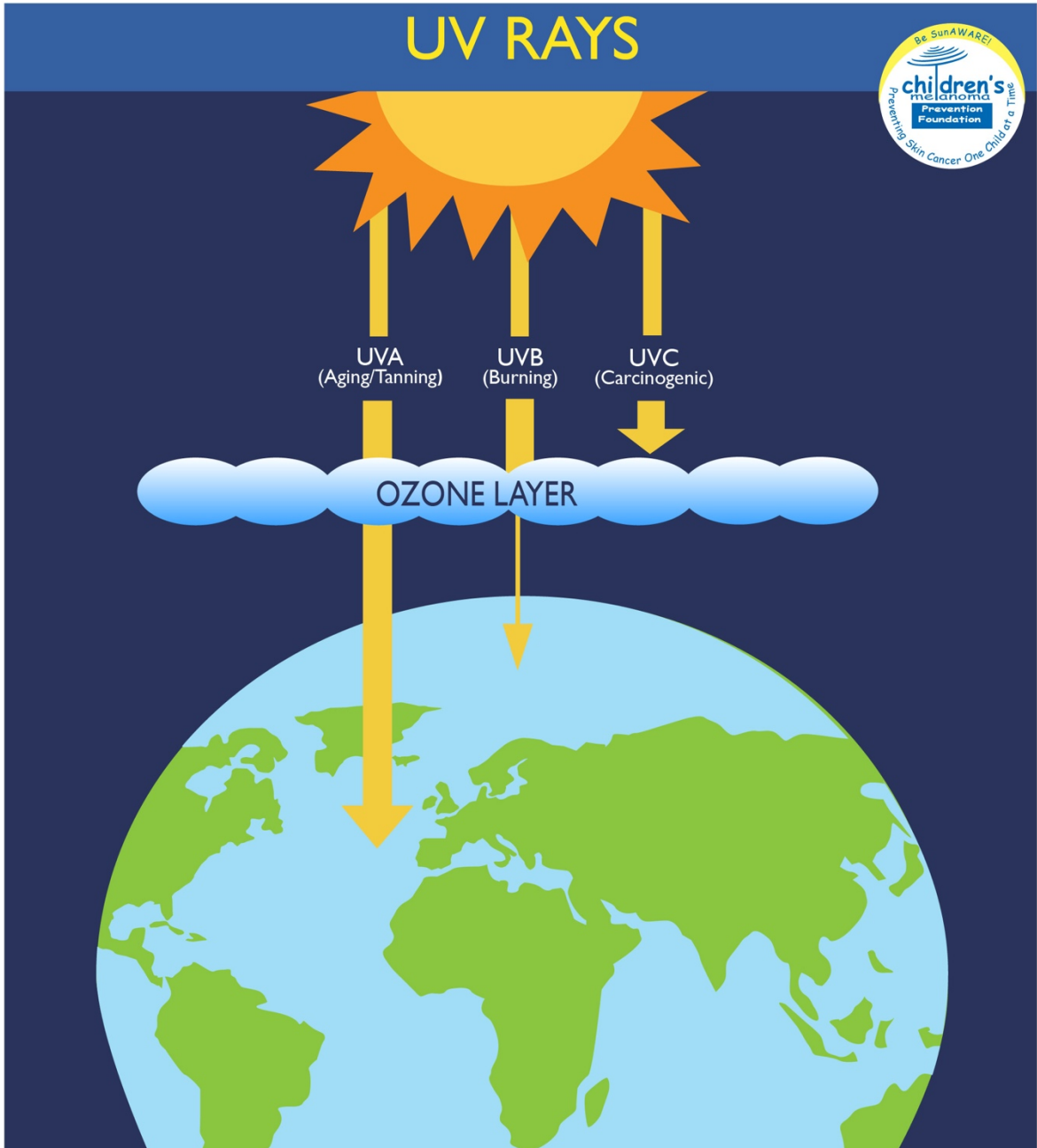
How the Sun Sees You

https://www.youtube.com/watch?time_continue=9&v=o9BqrSAHbTc

Websites:

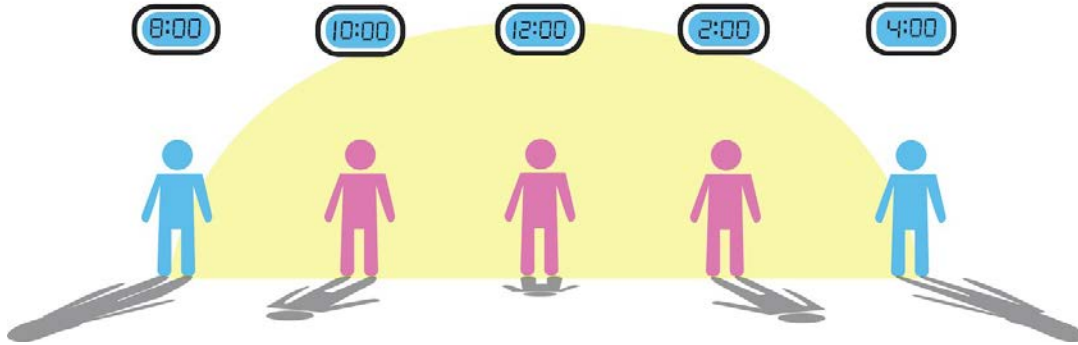
- Children's Melanoma Prevention Foundation: <http://www.melanomaprevention.org>
- Melanoma Research Foundation: <https://www.melanoma.org>
- National Environmental Education Foundation: <https://www.neefusa.org/sunwise>
- National Council for Skin Cancer Prevention:
<http://www.skincancerprevention.org/resources>
- Skin Cancer Foundation: <https://www.skincancer.org/>
- Science NetLinks Skin Deep Project:
<http://www.sciencenetlinks.com/lessons.php?DocID=552>
- World Health Organization:
http://www.who.int/topics/ultraviolet_radiation/en/

Addendum 1





**THE SUN'S UV RAYS ARE STRONGEST WHEN...
...YOUR SHADOW IS SHORTER THAN YOU**



SKIN TYPES

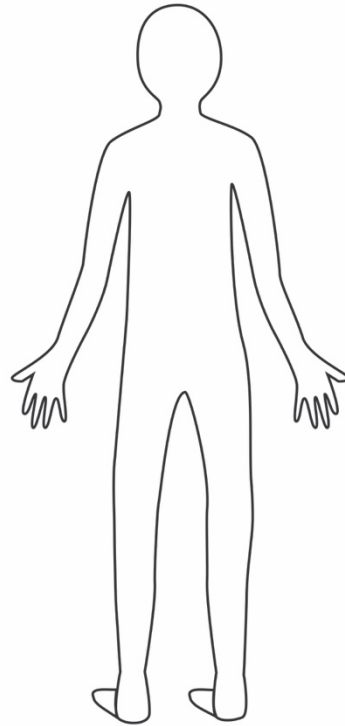
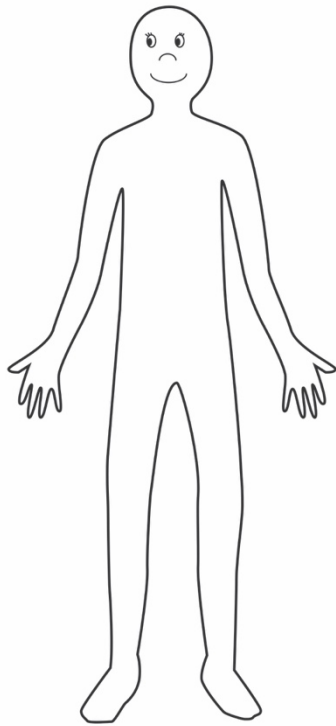
TYPE 1	Always Burns, Never Tans	
TYPE 2	Burns Easily, Tans Minimally	
TYPE 3	Sometimes Burns, Slowly Tans	
TYPE 4	Burns Minimally, Always Tans	
TYPE 5	Rarely Burns, Deeply Pigmented	



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Addendum 4

BODY MAP



NAME: _____



Addendum 5





Sun

A



Avoid unprotected exposure to sunlight, seek shade and never indoor tan.

W



Wear sun protective clothing, including a long-sleeved shirt, pants, a wide-brimmed hat, and sunglasses year round.

A



Apply recommended amounts of broad-spectrum sunscreen with a Sun Protection Factor (SPF) ≥ 30 to all exposed skin and reapply every two hours as needed.

R



Routinely examine your whole body for changes in your skin and report concerns to your healthcare provider.

E



Educate your family and community about the need to be SunAWARE.