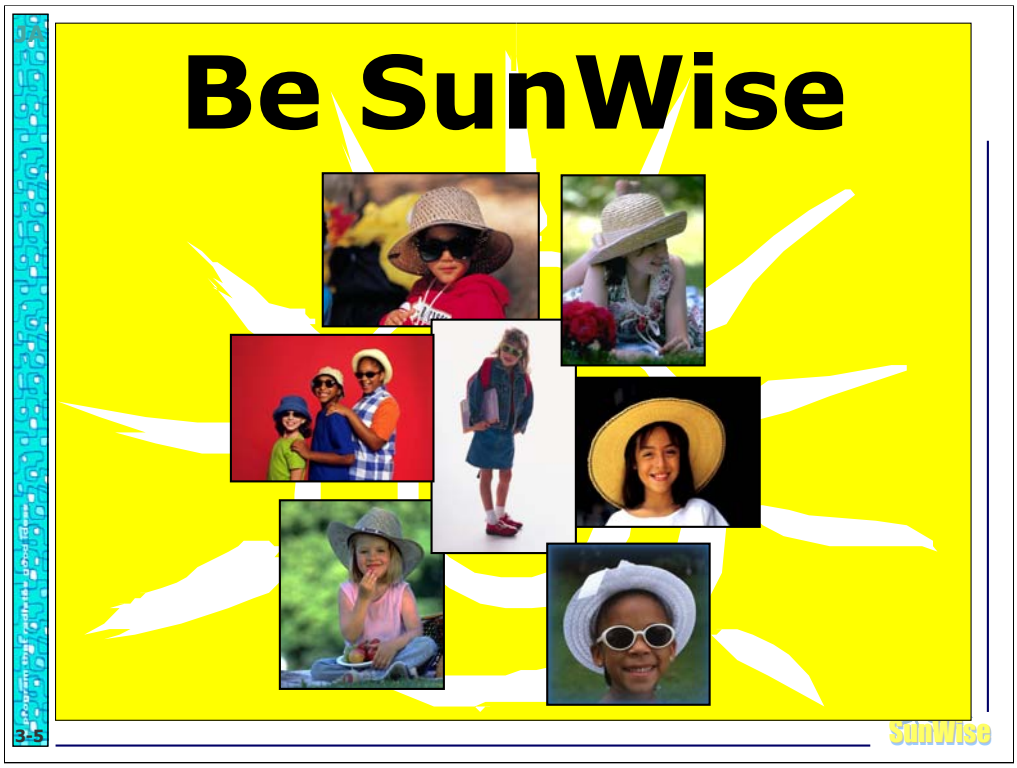
SunWise

a program that **radiates** good ideas

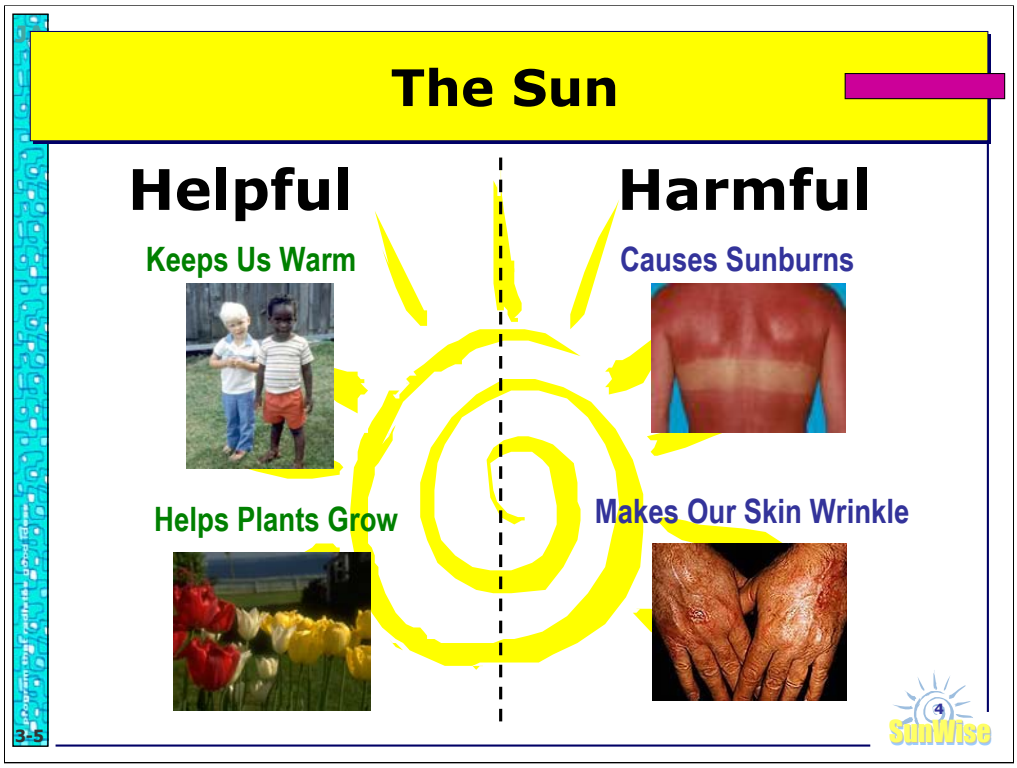
www.epa.gov/sunwise

U.S. Environmental Protection Agency



Ask students to look at the pictures and come up with a definition for the word "SunWise". You may chart the responses and keep posted for later reference. Tell students that they are going to receive more information about SunWise and that you will revisit the definitions later.

Ask the question and give student time to think about an answer. You might have them talk to a neighbor to generate ideas. After sufficient wait time move to the next slide. Ask students to share their ideas about the sun.



Give students ample time to generate ideas.

Listen to all student responses and then let the students know that you have pictures of a few things that show what we know about what our sun can do. Continue to move the slides forward until all four examples are on the screen. Ask students to look a the four pictures that you have selected and to put then into two categories. After students have shared their ideas for categories, move to the next slide…good and bad…and ask students why you have selected these categories, fill in any background information for students for them to understand why the sunburn and wrinkles are not good for our skin (for background information go to the SunWise web site: http://www.epa.gov/sunwise/uvandhealth2.html) .

Use the next two slides to expand on the list in each category. Have students participate in filling in the blanks to finish the words.

Hopefully some of the responses were already generated by the students.

The Sun

Helpful

Keeps Us Warm

Helps Plants Grow

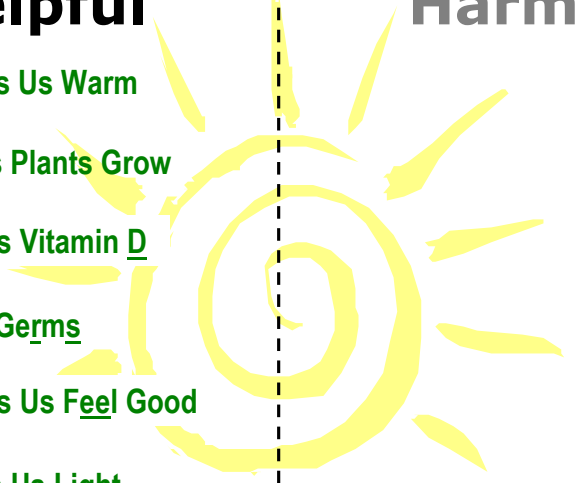
Makes Vitamin D

Kills Germs

Makes Us Feel Good

Gives Us Light

Harmful

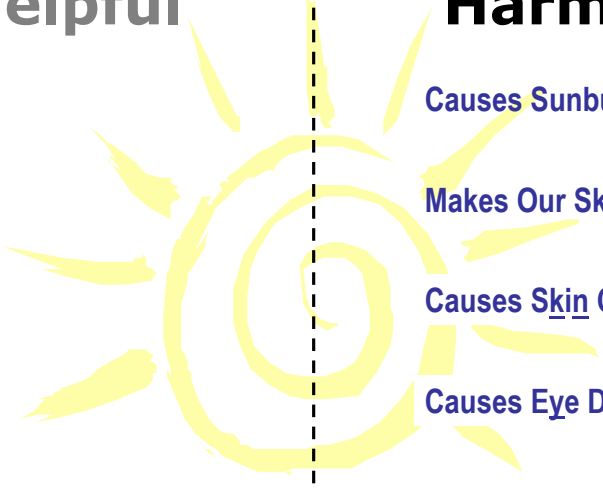


The Sun

Helpful

Harmful

- Causes Sunburns
- Makes Our Skin Wrinkle
- Causes Skin Cancer
- Causes Eye Damage



Helpful and Harmful Effects of the Sun

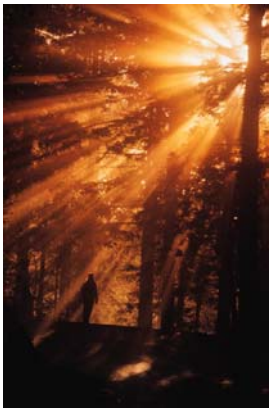
Helpful	Harmful
Keeps Us Warm	Causes Sunburns
Helps Plants Grow	Makes Our Skin Wrinkle
Makes Vitamin D	Causes Skin Cancer
Kills Germs	Causes Eye Damage
Makes Us Feel Good	
Gives Us Light	

The Sun…

…is necessary for life on Earth.

It helps plants to grow, and provides warmth and light.

Sunlight also helps people to be happy and healthy.



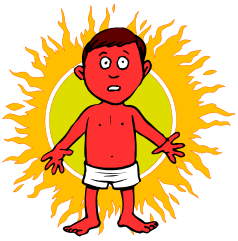
3-5

Summarize information about the sun…

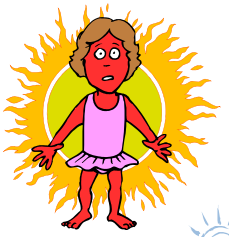
For additional information go to the SunWise website (www.epa.gov/sunwise) or the SunWise kid pages (www.epa.gov/sunwise/kids.html)

The Sun…

…produces light and warmth but also Ultraviolet (UV) radiation. UV radiation cannot be seen or felt.



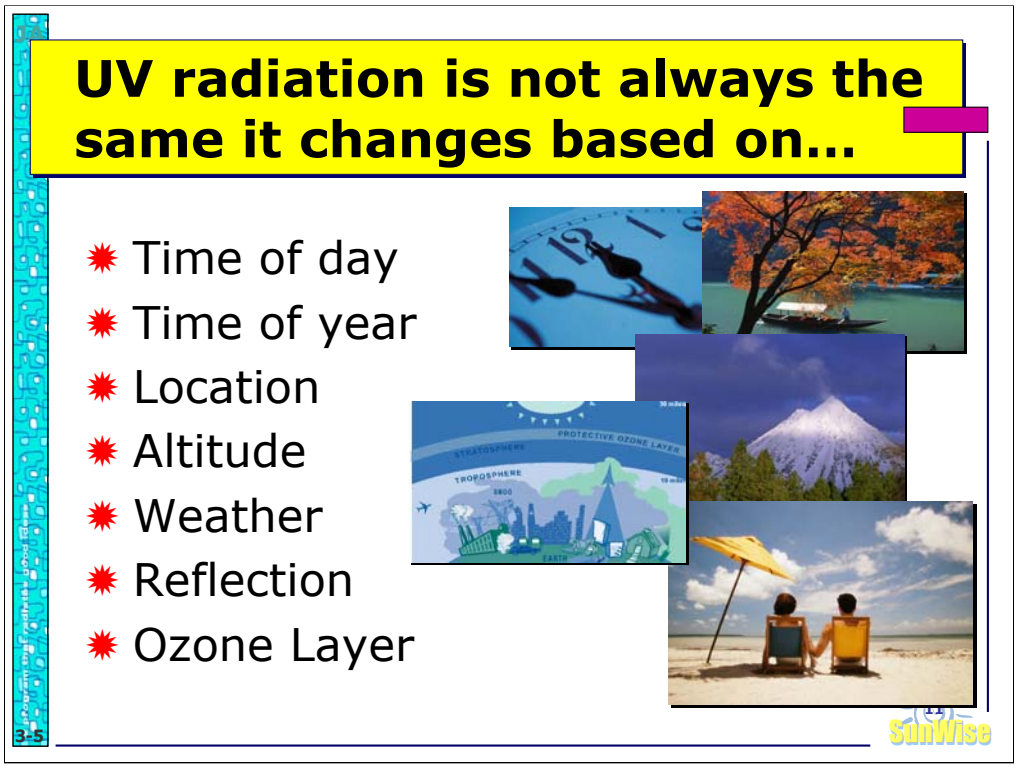
It is UV radiation, not the warmth or brightness of the sun that causes changes to skin color, damage to eyes, and other bad health effects.



Point out that the sun also produces ultraviolet radiation that can be potentially harmful to us. Stress (as much as possible for this age group) that it is ultraviolet (UV) radiation, not the light or warmth that causes the harmful effects.

The Invisible Health Risk

Harmful UV Radiation



(General UV information: http://www.epa.gov/sunwise/uvindex.html)

Give students example of each variable that fits with their experiences such as:

Time of day: early morning vs. late at night (Note: Remember the shadow rule: Watch Your Shadow. No Shadow, Seek Shade!

Time of year: summer vs. winter

Location: black top vs. under the shade of a tree

Altitude: in the mountains

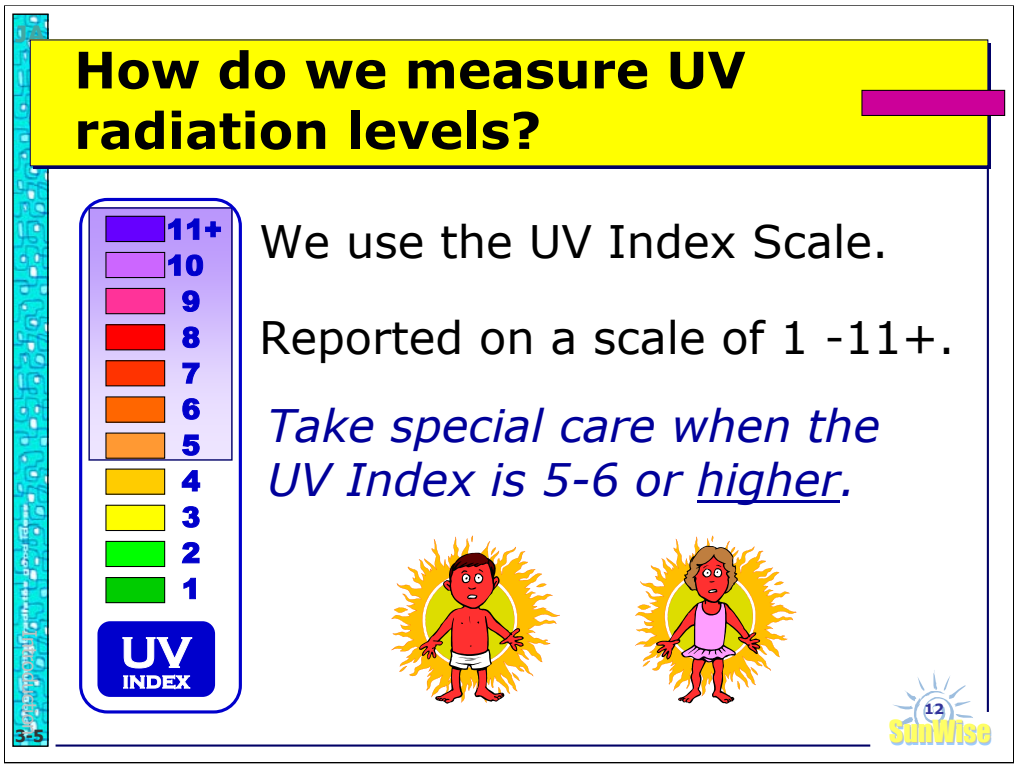
Weather: cloudy vs. clear

Reflections: snow and water

Ozone layer: is thinning and offering less protection against harmful UV rays

(Until recently, chlorofluorocarbons (CFCs) were used widely in industry and elsewhere as refrigerants, insulating foams, and solvents. When CFCs break down in the stratosphere, they release chlorine, which attacks ozone. http://www.epa.gov/sunwise/ozonelayer.html)

Information on the UV Index and why it varies: http://www.cpc.ncep.noaa.gov/products/stratosphere/uv_index/uv_information.html



The UV Index is a prediction (based on a mathematical equation http://www.epa.gov/sunwise/uvcalc.html) of the UV level at noon. It can be used as a tool (much like a thermometer is a tool for temperature) for reminding people how to protect themselves from overexposure to UV radiation. The higher the UV Index level, the greater the possibility of damage to the skin and eyes in less time. Ask students to think back to the pictures of people being SunWise you used when asking them to form a definition. What were some of the ways that people were taking special care to protect themselves from the UV radiation levels? Students should remember the use of sunglasses, wide brimmed hats and clothing.

Again ask student sot think about the definition of SunWise that they formed at the start of the lesson. Tell them that you will now go over some specific ways to become SunWise.

http://www.epa.gov/sunwise/actionsteps.html

Sun Safety Action Steps

Limit Time in the Midday Sun

Wear Sunglasses

Seek Shade

Use Sunscreen

Cover Up

Avoid Tanning Parlors

Wear a Hat

Watch for the UV Index

Sun Safety Action Steps

Limit Time in the Midday Sun

The sun's rays are strongest between 10 am and 4 pm.

Limit exposure to the sun during these hours.

Sun Safety Action Steps

Seek Shade

Staying under cover is one of the best ways to protect yourself from the sun.

But remember, shade structures do not offer complete sun protection.

Sun Safety Action Steps

Cover Up

Wearing long sleeves and long pants is a good way to protect your skin from the sun's UV rays.

Sun Safety Action Steps

Use Sunscreen

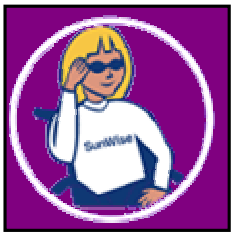
Use sunscreen of SPF 15+ generously and reapply every 2 hours, or after working, swimming, playing, or exercising outdoors.

Sun Safety Action Steps

Wear a Hat

A hat with a wide brim offers good sun protection for your eyes, ears, face, and the back of your neck.

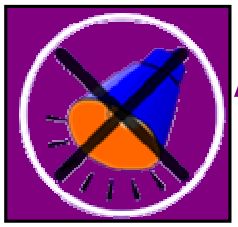
Sun Safety Action Steps



Wear Sunglasses

Sunglasses that provide 99 to 100 percent UV protection will greatly reduce sun exposure that can lead to eye damage.

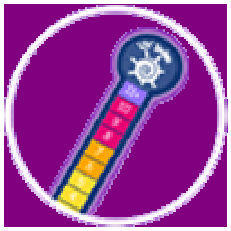
Sun Safety Action Steps



Avoid Tanning Parlors

The light source from sunbeds and sunlamps damages the skin and unprotected eyes. It is a good idea to avoid artificial sources of UV light.

Sun Safety Action Steps

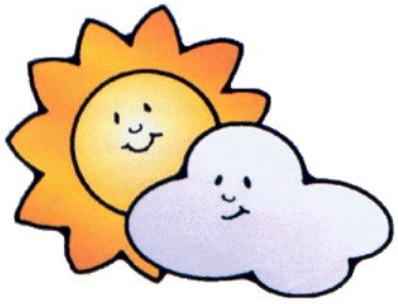


Watch for the UV Index

The UV Index provides important information to help you plan your outdoor activities in ways that prevent overexposure to the sun. The UV Index is issued daily across the United States.

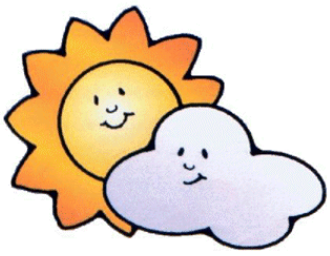
Ask students if they feel that they are SunWise and if not what more could they do to become SunWise. Have students brainstorm on how this might happen. Use the next four true/ false questions as a formative evaluation tool to check for understanding.

True or False?



You can get sunburned on a cloudy day.

True or False?



You can get sunburned on a cloudy day.

TRUE

Even on a cloudy day, many of the sun's rays can still reach the Earth's surface.

True or False?

You only need to wear sunscreen when you are at the beach.

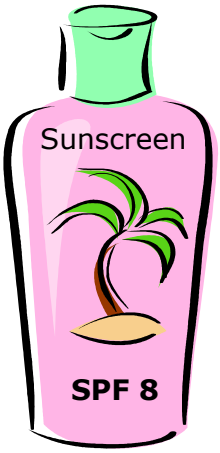
True or False?

You only need to wear sunscreen when you are at the beach.

FALSE

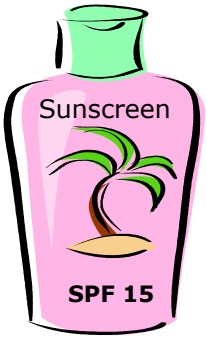
You do not have to be sunbathing to get a damaging dose of the sun. Everyday exposure to the sun without sunscreen can damage your skin.

True or False?



Sunscreen with a SPF of LESS than 15 is enough to protect my skin.

True or False?



Sunscreen with a SPF of LESS than 15 is enough to protect my skin.

FALSE

Use Sunscreen with **SPF 15 or Higher**. Remember to put on enough sunscreen to protect your skin.

True or False?

My skin doesn't get sunburned, so I don't need to worry about protecting myself from overexposure to the sun.

True or False?

My skin doesn't get sunburned, so I don't need to worry about protecting myself from overexposure to the sun.

FALSE

Skin cancer and other bad effects from the sun can affect any person, regardless of skin color.

As a follow up activity ask students to construct their own riddles and share with the class.

Whatever You Do… Be SunWise!

SunWise

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