

Grade 3

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SunSafe Project

Curriculum: Grade 3

Learning Objectives

The students will:

1. Learn what skin cancer is and that it is preventable
2. Identify specific ways to protect themselves from too much sun.
3. Learn that they can choose to protect themselves from the sun and understand the consequences of their choices.

Curriculum Overview

Class One:

- I. Discuss the Diagram of the Solar Spectrum
 - discuss different types of rays from the sun
 - discuss ways to protect ourselves from the harmful rays
- II. Show *Cover Up* video (See Resource List.)
 - discuss key points from video
- III. Give our parent-child home activity
 - magazine collage activity or activity of your choice

Class Two:

- I. Choose a “Hands On” Activity
- II. Discuss Diagram of the Skin
 - discuss layers of skin
 - discuss how/why skin tans
 - discuss ABCS of sun protection
- III. Review parent-child home activity
 - discuss collages or other activity
- IV. Present SunSafe certificate

Suggested Lesson Plans



I. Discuss the Diagram of the Solar Spectrum

1. Let's talk a little about the sun. What does the sun do? Draw a sun on the board with sunbeams coming from it. Brainstorm ideas about what the sun does and write them one on each sunbeam. Possibilities include: it shines and gives us light, it warms us up, it makes plants grow, etc. Be sure that "it makes us tan" is included.
2. Draw some clouds beneath the sun. Ask what happens on a cloudy day. Do we still get some light from the sun? Do we still get warm? Can we still get a tan? (yes) So some of the sun must still get through the clouds. Ask them if they know anything else that blocks the sun? Possibilities include umbrellas, trees, houses, etc. Some students may also know about the ozone layer. Explain that the ozone layer is an invisible layer in sky that blocks some of the sun's rays.
3. Point to the drawing on the board and explain that the sun has different kinds of sunbeams for the different jobs. To demonstrate some of the different kinds of beams:
 - a) to demonstrate how the sun warms us up, have a student stand in front of a window and let the sun shine on his/her back until he/she is warm. Alternately, place a glass of water in the window at the beginning of the lesson. Ask a student to touch it and feel if it has warmed up. Tell the students that the infrared light is the kind of sunbeam that warms us up.
 - b) to show the visible rays of light, shine a flashlight through your hand in a darkened room. Tell the students that this is called visible light.
 - c) tell the students that there is another kind of sun beam that we can't see or feel. This kind causes suntans and it also causes sunburns, wrinkles, and blotches on our skin. It is called ultraviolet light.

Class One

Class One-continued



Class One—continued from previous

4. Pass out the Diagram of Solar Spectrum sheet. Have the students look at the three kinds of rays that are explained in #3 (ultraviolet, visible, infrared). Ask them what other kinds of rays are shown on the sheet. (gamma and x-ray). What happens to them? Do they reach the earth?
5. Explain that you want to look more closely at an invisible type of light (ultraviolet). Remind students that this type of light causes suntans and it also causes sunburns. Ask if anyone has had a sunburn. Ask when and where they got it. Ask them how it felt. Ask them if they want another one.
6. Tell students that it is important to protect themselves from ultraviolet light. When a person receives years and years of this type of sunlight, it can cause wrinkles, spots, and even skin cancer.
7. Ask students for suggestions on how to avoid ultraviolet light. If a student suggests that clouds will protect them, ask them to look at the Diagram of Solar Spectrum again and see if all of the ultraviolet light is blocked.
8. Brainstorm ideas for how to protect ourselves. Be sure to highlight the ABCS.

II. Show *Cover Up* video.

Discuss key concepts:

How to dress for sun protection and avoid a sunburn. Discuss the importance of protection during all outdoor activities.



Class One-continued from previous page

III. Give our parent-child homework activity. Ask the students and their parents to make a magazine collage that illustrates both well protected and poorly protected families. You could also choose from the other support activities.



I. Choose a “Hands On” type of activity from the Support or Additional Activities.

II. Discuss Diagram of the Skin (make overhead of Diagram of the Skin)

1. We have already talked a little about how to dress for sun safety. What are some of the ideas that we discussed? What do we need to remember before going out? What is the *best thing* that we can do to reduce our exposure to the sun? (avoid peak hours) What is the next best thing that we can do? (Cover-up with clothing and a hat.)

2. Why do we need to remember the ABCS of sun safety? (To protect our skin, to avoid sunburns, to avoid wrinkles, heat rash, and to reduce our risk of skin cancer later in life.)

3. Well, let’s talk some more about our skin. What do we already know about the skin? What does it do? Brainstorm ideas. Write the students’ responses on the board. They may include: it is the largest human organ, it protects us, it holds us together, it is elastic, it grows, it can be damaged, etc.

4. We have talked some about what happens when we spend time in the sun without protecting ourselves -- suntans, sunburns, heat rash, etc. But why does our skin turn brown or red when we are in the sun? What is actually happening inside our skin that makes it do that?

Class Two

Class Two-continued



Class Two-continued from previous page

5. First, let's take a look at our skin. (Put up overhead of Diagram of Skin). What do we see here? How many main layers are there? What are they called? They all have "derm" in them, don't they? What is a skin doctor called? Right, a dermatologist. So if you see a word that has "derm" in it, what does that probably mean?
6. Let's start at the bottom. Which layer is deepest? What is it made of? What does that do for us? (Fat is stored energy. When we exercise or play, we use up some of our stored energy.)
7. What layer is in the middle? What is it made of? What do you think blood vessels do? (nourish the skin, bring oxygen to it, take away waste, etc.)
8. Now the outermost layer. What is it called? It is made of a couple of different things.

The different kinds of cells:

- a) **Squamous cells** -- these are the cells that are on the surface of skin. They are cells that are rubbed off with every day wear and tear. They protect the deeper layers of skin.
- b) **Prickle cells** -- these offer more layers of protection.
- c) **Basal cells** and melanocytes. The melanocytes produce melanin. Melanin is what gives your skin its color. Everyone has the same number of melanin producers no matter what color their skin is. The difference is that in darker-skinned people, the melanin producers make more melanin than in fair-skinned people. That is why people with dark-skin have more natural protection. We need to remember though that everyone can get a sunburn, and everyone needs to protect themselves.



Class Two-continued from previous page

9. Now do you remember the different types of sun rays that we talked about? (The students may want to get their Diagram of the Solar Spectrum sheet out.) There were how many kinds? Some were not harmful -- which ones? Which is the one we want to protect ourselves from?
10. When ultraviolet light hits your skin, it activates the melanin producers and they start producing melanin. The melanin makes your skin turn brown. But why does our skin produce melanin? Our skin does this to try to protect itself. The sunlight will be absorbed by the melanin and not by our skin. The problem is that it is impossible for our skin to produce enough melanin to stop all of the ultraviolet rays. The melanin producers will try and try, but they won't be able to stop the harm to your skin.
11. Since our skin can't protect itself from the sun, what do we have to do? Right, we need to remember the SunSafe ABCS. What are those?

Class Two-continued





Class Two-continued from previous page

- ☼ **Avoid** the sun from 11am-3pm. Ask students why. (Because that is when the sun's rays are strongest.) Brainstorm activities to do during that time.
- ☼ **Block** the sun with sunscreen that has an SPF of at least 15. Ask students what SPF stands for.(Sun Protection Factor). Ask them what the lowest number on the sunscreen bottle should be (15). Ask them if putting sunscreen on just once is okay if they are outdoors for long periods of time. (No, it is important to reapply it every couple of hours, even if it is waterproof.)
- ☼ **Cover-up** with hats, clothing, and sunglasses.
- ☼ **Say something** to your family, friends and neighbors about how important it is to protect themselves from the sun. Show them ways that they can be SunSafe.

Remind students that these are the best ways to protect themselves from the ultraviolet light of the sun.

III. Review parent-child home activity.

Review the collages that the students made with their parents. Have students show collages and discuss the sun protection or lack of sun protection in each one. As students are presenting, ask questions such as, "What will happen to the people in the picture since they don't have on a hat?" or "What could the people in the picture do to protect themselves from the sun?", etc.

IV. Presentation of SunSafe certificate.



Class Three and on

Although we suggest two class periods to introduce sun protection, we encourage you to do a reminder activity each week until the end of the school year. Some weeks you may have time to assign one of the worksheets included in the curriculum. They may be easily included in a language or writing lesson. If there is no time to do one of the activities, the **reminder** could be as simple as asking the students on Friday what they are planning to do over the weekend, and then asking them if they remember what they should do to protect themselves from the sun.

Thank you for teaching the SunSafe curriculum and helping to reduce your students' chances of developing skin cancer.



DIAGRAM OF SKIN

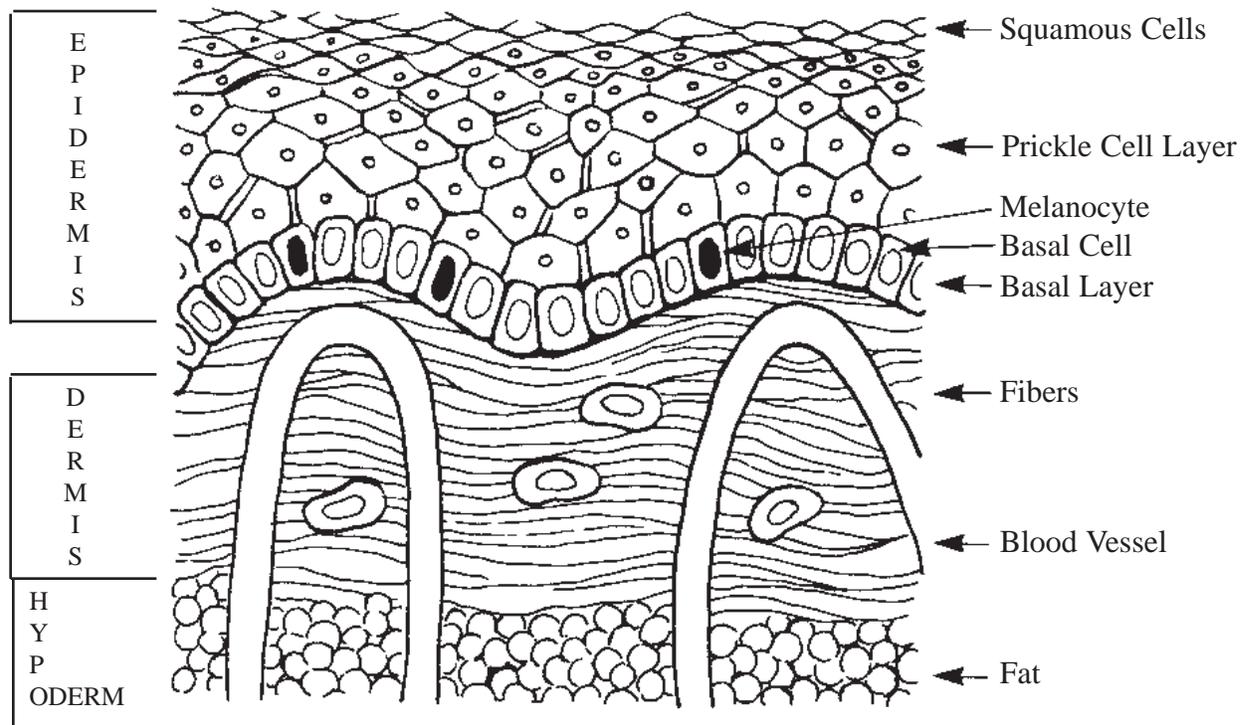
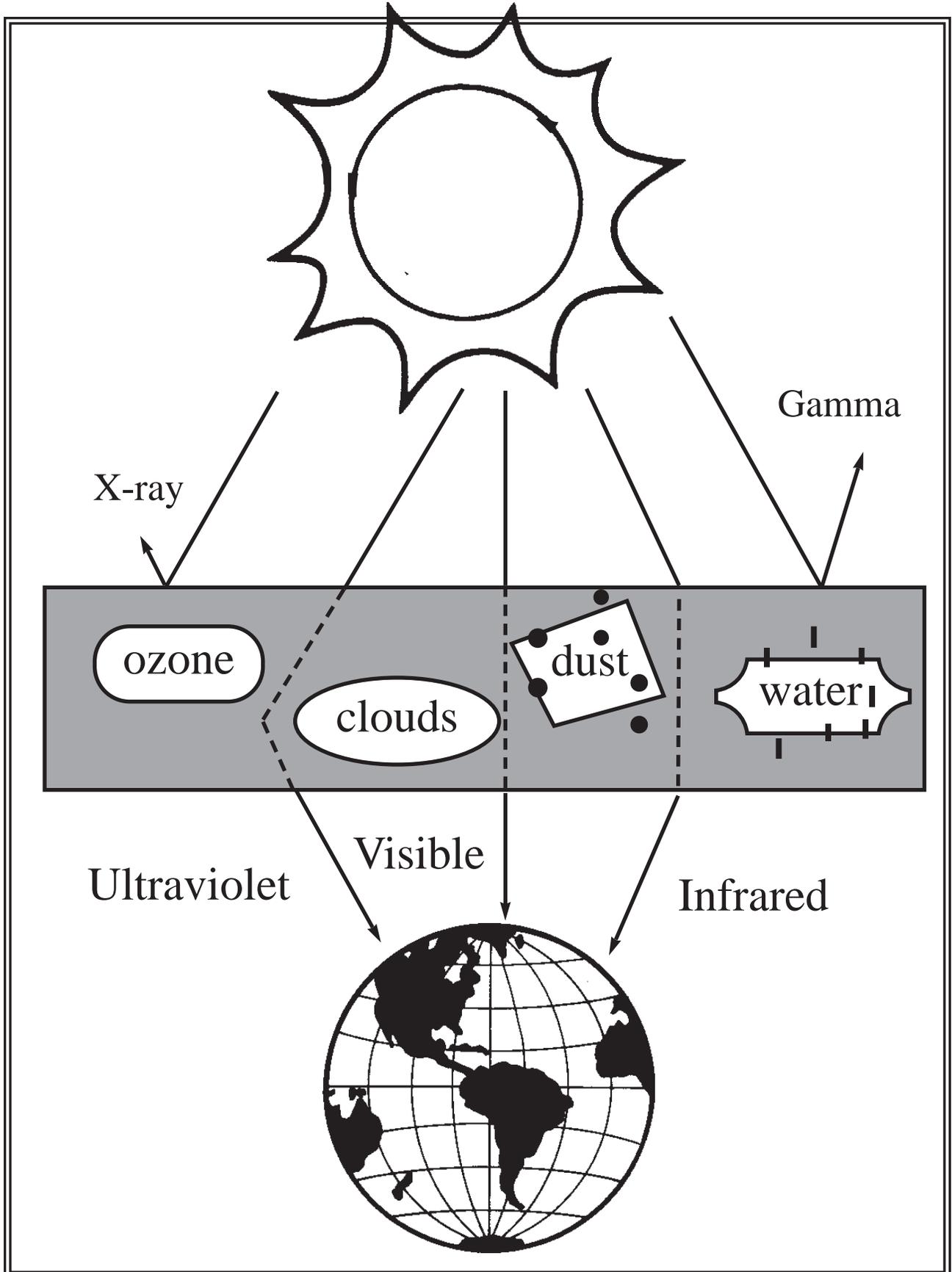
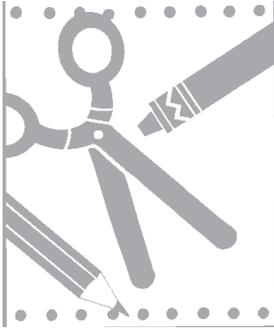


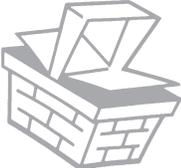
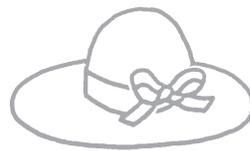
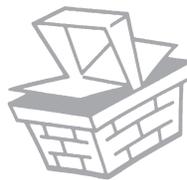
DIAGRAM OF SOLAR SPECTRUM



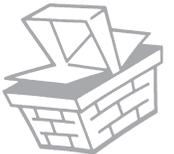
Support Activities



- Choose from the Support Activities.
- Have children role play the following scene - demonstrate how they would help remind their parent(s) that they need to put on sunscreen, a shirt and hat before they go to the beach or play outdoors.
- From old magazines, cut out people and things to make a collage of how to be SunSafe.
- Have children write a descriptive paragraph about a time when they were sunburned or a story incorporating what they learned from the video.
- Read from *Play It Safe In The Sun* Reading Book or hand out Activity Books (see Resource List).
- See The Additional Activities for more ideas!



Sun Safe



(Name)

Knows how to be safe in the sun!

Avoid

Block

Cover-up

Say Something

