

Grade 4: Hygiene

Lesson 8: The Sun and Your Skin

Objectives:

- ✓ Students will identify appropriate sunscreen for everyday and special use.
- ✓ Students will explain how and when to use sunscreen appropriately.

Materials:

- Various samples of sunscreen with different SPF ratings, including sunscreen with “kids” written on it
- Paper, pencil
- Sunscreen chart (**See Figure 1**)
- Background article for students (**See Figure 2**)
- Evaluation Worksheet (**See Figure 3**)

Activity Summary:

Students will learn the appropriate uses for sunscreen, including which SPF rating to use for each situation.

Background Information for the Teacher:

Many students don't use sunscreen and don't know when it is important to use it. They also may not know what the different SPF or sun protection factor ratings mean.

Everyone needs a certain amount of sun every day in order to have sufficient levels of vitamin D in the body. Too little vitamin D can lead to softening of the bones, a condition known as rickets.

However, too much sun (or sun exposure that is too intense) can cause the skin to burn. Repeated burning of the skin can lead to skin cancers. Getting a tan may be fashionable, but it is actually not great for your overall health.

The sun is at its most intense during the middle of the day, from about 10:00 a.m. to 3:00 p.m. During those times it is wise to stay out of direct sunlight and it's always a good idea to wear long sleeves, sunglasses, and a hat when exposed to direct sunlight.

Help students understand that beginning now to take good care of their skin will help them stay healthy throughout their lifetime.

Vocabulary:

Sunscreen

Sunburn

SPF (sun protection factor)

Skin Cancer

Engage (5-7 minutes):

Display bottles of sunscreen or the pictures of different sunscreens and ask the following questions:

1. What are these bottles? What are they used for?
2. Who uses sunscreen at least once a week?
3. When do you usually wear sunscreen?
4. What SPF (sun protection factor) do you use?
5. What does SPF mean?

Explore:

1. Have students work in groups of four. Give each group a copy of the following Sunscreen Chart (**See Figure 1**) and create a copy of the chart on the board like the one below:

Question	SPF 8	SPF 15	SPF 30	SPF 45
Bright sun over 30 min				
Moderate sun a few minutes at a time				
Swimming pool, hot day				
Not enough protection ever				

Have students record on their chart which sunscreen they would use in the following situations:

- Exposure to very bright sunshine for more than 30 minutes
- Exposure to moderate sunshine for a few minutes each day
- Exposure while at the swimming pool on a hot day

Ask: ***“Which one doesn’t provide enough sun protection at ANY time?”***
(SPF 8.) ***“How often should sunscreen be reapplied?”***

When the students complete the group charts, go through each question again and have the class vote on each one to see how many students think it should be SPF 8, 15, 30 or 45. Record the number of students in the appropriate square.

Students will continue work with this chart in Extend.

Explain (10 minutes):

1. Ask: **“What can happen to our skin if we don’t protect ourselves from too much sun?”** (Too much sun is bad for our skin. If we get too much sun our skin can burn. Getting too many sunburns can sometimes lead to a kind of skin cancer known as MELANOMA, which can be fatal.)
2. Ask: **“Which layer of the skin would get burned?”** (Both the surface layer, the epidermis, and the second layer, the dermis, can be damaged by ultraviolet radiation. The epidermis cells blister and flake. Damage to the skin’s deeper layers can affect blood flow to the skin. The body has to work harder to make new skin cells and to protect us from infection whenever our skin becomes damaged from too much sun.)
3. Ask: **“Has anyone ever been sunburned? How did that happen? How did you feel? Did you have blisters?”** (Have students discuss their experiences. Sometimes getting too much sun and getting burned can make us feel sick, so it is not something we want to do.)
4. Ask: **“What can you do to take care of your skin and avoid getting a sunburn?”** (Wear sunscreen.) **“How frequently should we wear sunscreen?”** (Every day.)
5. Ask: **“Do we have to wear sunscreen when it is cloudy or only when it is sunny?”** (Have the students vote on when they need to wear sunscreen, then explain that exposure to damaging UV rays when it is cloudy.)
6. Ask: **“What do the numbers and letters “SPF” on the sunscreen bottles mean?”** (SPF stands for “Sunscreen Protection Factor.” The numbers indicate different levels of sun protection.)
7. Mix the bottles of sunscreen up, then ask the students to arrange the bottles in order of sun protection from lowest to highest.

Extend (15-20 minutes):

Have the students work again in the same groups of four that recorded the chart in Explore. Assign each student in the group a question. Have all students read the background article (**See Figure 2**), “The Sun and Your Skin,” silently and look for the answer to the question they have been assigned. After reading the article, have the groups discuss their findings quietly among themselves.

Review the questions again and see if anyone wants to change their answer. Record the answers on the chart.

Answer Key:

- Which sunscreen would they use if they were in very bright sun for more than 30 minutes? (SPF 30 or 45)
- Which one might they use if they were in moderate sun for a few minutes each day? (SPF 15)
- Which one might they use if they were at the swimming pool on a hot day? (SPF 45 waterproof)
- Which one really doesn't provide enough sun protection at any time? (SPF 8)
- How often should sunscreen be replaced? (At least once every 12 months)

Evaluate:

1. Have students match sunscreen SPF to the appropriate situation. **(See Figure 3)**
 - Bright sun, over 30 minutes (SPF 30 or 45)
 - Moderate sun, a few minutes at a time (SPF 15)
 - Beach or pool (SPF 45 waterproof)
 - Don't use (lower than SPF 15)
2. Have students create a poster that explains/promotes why it's important to use sunscreen on a daily basis. Make sure the posters include the following key points:
 - Too much sun can damage the skin and it may cause skin cancer.
 - Sunscreen helps protect the skin from too much sun.

Optional Enrichment Activity:

Have students set a goal for using sunscreen every day and record it.

Ask: ***"If we are exposed to the sun EVERY DAY, how can all of us protect ourselves to prevent damage to our skin? How can we get into the habit of wearing sunscreen?"***

Have the students brainstorm ideas for creating their habit of using sunscreen. Have them determine what sunscreen they need to use and when they would put it on. Have them brainstorm how they can support each other in making this a daily healthy habit.

Additional Web Resources:

- Cancer Council of Australia: www.skinhealth.com
- American Melanoma Foundation: www.melanomafoundation.org
- Summer Health Tips: www.childrenshospitaloakland.org

Figure 1

Question	SPF 8	SPF 15	SPF 30	SPF 45
Which sunscreen would provide adequate protection during exposure to bright sun for more than 30 minutes?				
Which sunscreen would provide adequate protection during exposure to moderate sun for a few minutes at a time?				
Which sunscreen would provide protection during prolonged exposure at a swimming pool on a hot day?				
Which sunscreen would probably NOT provide adequate protection?				

Figure 2



The Sun and Your Skin

Do you use sunscreen? Do you know when you should use it? Read the short article below to see if you know when to use sunscreen and what kind to use.

Everyone needs a certain amount of sun every day in order to have enough vitamin D. Too little vitamin D can lead to softening of the bones, a condition known as rickets.

However, too much sun, or sun that is too intense can cause the skin to burn. Repeated burning of the skin can lead to skin cancer. Getting tan may be fashionable, but may not be a health choice. Whether you tan from the sun or from a tanning lamp, your skin can be damaged by too much UV radiation.

The sun is at its most intense in the middle of the day, from about 10:00 a.m. to 3:00 p.m. During those hours it is wise to stay out of the direct sun. It's always a good idea to wear long sleeves, sun glasses, and a hat when in the direct sun.

When you are outside in the sun, remember to wear sunscreen. In fact, it's best if you use sunscreen every day, even in the winter. Sunscreens come in different strengths, or SPF ratings. SPF means "sun protection factor." **You should always wear at least SPF 15 or higher**, because anything lower than SPF 15 isn't really protecting you from harmful rays. If you must be out in the sun in the middle of the day, it's best to use a sunscreen of 30 or 45, depending upon how long you will be outside. And be sure to use a **waterproof** sunscreen at the beach or the pool. It is also important to **replace your sunscreen each year**. So throw out your old sunscreen at least every twelve months. Sunscreen that is used past its expiration date will not be as effective as its SPF number indicates.

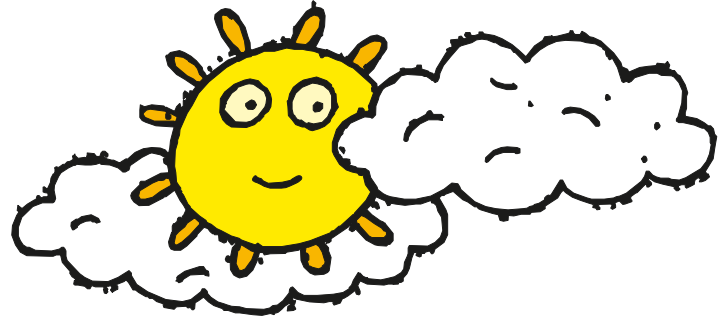
Taking good care of your skin now will help you stay healthy for life!

Figure 3

Bright Sun



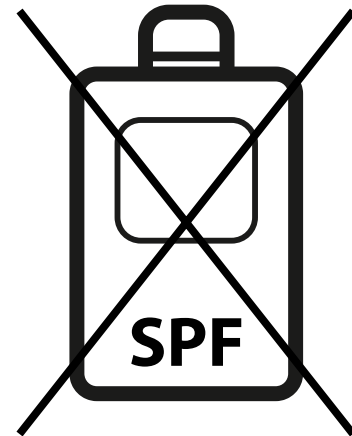
Moderate Sun



Intense Sun



Not Enough Protection



Explain why it is important to use sunscreen on a daily basis:
