

UNIT 4: USING SUNSCREEN



BACKGROUND FOR TEACHERS

This unit focuses on the third way to be sun safe—using sunscreen lotion and lip balm.

Sunscreen is a special type of lotion that helps protect skin from the sun's harmful rays. Sunscreen lotion and lip balm are labeled by the length of protection they provide. This is expressed as a Sun Protection Factor (SPF). The SPF number refers to the product's ability to absorb or reflect ultraviolet rays for a period of time. The higher the SPF, the longer the protection the sunscreen will provide. SPF 15 or greater is recommended to ensure at least two hours of protection even on high sun intensity days. Sunscreen should be applied in a thick, even layer on all areas of skin not covered by cover-up clothing and hats. For the best results, sunscreen lotion and lip balm should be applied 30 minutes before you go outside to give the chemicals time to work. They should be reapplied after swimming or sweating since they can wash or rub off. A practical habit is to apply sunscreen lotion and lip balm every day year-round.

Most sunscreens are chemical sunblocks. The chemicals in sunscreen absorb or reflect ultraviolet (UV) light and keep it from reaching skin. Some sunscreens are physical sunblocks. They contain chemicals, such as titanium dioxide, that block the sun's rays and increase the sunscreens' protectiveness. The chemical and/or physical blocks in sunscreen protect skin from UVB rays. Some sunscreen products, called "broad-spectrum" sunscreens, protect skin from both UVA and UVB rays. Broad-spectrum sunscreens are the best type of sunscreen protection for this reason. Some people wear zinc oxide especially on their noses to protect them from the sun. Zinc oxide is the thick, white cream. It is a physical barrier, not a chemical sunscreen. It is not absorbed into the skin. It should only be used on small areas of skin since it can prevent perspiration and normal heat loss from the body.

Factors such as latitude, elevation, climate, and season affect the amount of UV light a person is exposed to and the amount of protection sunscreen products provide. Since UV light is more intense in areas with low latitudes, high elevations, and sunnier climates, it takes less time for skin to sunburn and the length of protection provided by sunscreen products is less. Wearing sunscreen is important for another reason. Sunlight bounces off of surfaces onto skin and can cause damage (even if you are sitting in the shade).

Sunscreens do not block 100 percent of the sun's ultraviolet rays. Even with sunscreen, your skin is exposed to some ultraviolet light. Sunlight reflects

off of many surfaces including cement, sand, snow, tile, and water. Physical sunblocks provide the best protection. Stay indoors during peak sun hours, use shade, and wear cover-up clothes. Use sunscreen in addition to physical sunblocks, not instead of them.

The goal of this curriculum is for students to recognize and use the tools for sun safety—finding shade, wearing cover-up clothes, and using sunscreen lotion and lip balm with an SPF 15 or more. The best protection is doing all three together everyday!

UNIT OVERVIEW

This unit focuses on using sunscreen lotion and lip balm to protect skin from the sun's rays. Students learn (1) the proper use of sunscreen lotion and lip balm, (2) how the Sun Protection Factor (SPF) affects the amount of protection sunscreen lotion and sunscreen lip balm provide, and (3) how factors such as latitude, climate, and season affect the length of protection sunscreen products provide.

HEALTH BEHAVIOR OUTCOME

Upon completion of this unit, students will:

- Increase their use of sunscreen lotion and lip balm.

VOCABULARY

Sunscreen lip balm: a special cream to put on your lips to protect them from the sun's harmful rays.

Sunscreen: a special lotion to put on your skin to protect it from the sun's harmful rays.

Sun Protection Factor (SPF): the amount of protection from the sun a product provides.

ACTIVITY SYNOPSIS

Setting the Stage

- **4.1 ABOUT MY DAY**

Students discuss their sunscreen lotion and lip balm use to familiarize them with individual practices.

Learning Activities

- **4.2 THE 5 W'S OF SUNSCREEN**

Students learn about the 5 W's (What, Who, When, Where, and Why) of sunscreen and lip balm. They create a sunscreen mobile to illustrate the concepts they have learned.

- **4.3 WHICH IS BETTER?**

Students rate the protectiveness of sunscreen lotions and lip balms based on their SPF. They also learn how seasons affect the time it takes the sun to damage skin.

Wrapping It Up

- **4.4 SUNSCREEN FOR SALE!**

Wearing sunscreen and sunscreen lip balm is something that everyone can do and it is an important strategy for staying safe in the sun. In this activity, students will decide how to add up bills and coins in order to buy the best sunscreen and sunscreen lip balm.

Assessing Student Learning

- **4.5 ALL ABOUT SUNSCREEN**

Students make Josh and Natalie sun safe and complete statements about sunscreen use.

Setting the Stage

4.1 ABOUT MY DAY

ACTIVITY SYNOPSIS

Students discuss their sunscreen lotion and lip balm use to familiarize them with individual practices.

LEARNING OUTCOMES

After this activity, students will be able to:

- Identify using sunscreen lotion and lip balm as another way to protect skin from the sun.
- Describe their own patterns of sunscreen use.

ACTIVITY

Show them the photographs or samples of sunscreen and lip balm products. Ask students if they know another way to be sun safe (use sunscreen and lip balm). Ask them what sunscreen lotion and lip balm are and why they need to wear them. (Sunscreen is a special lotion to put on your skin, sunscreen lip balm is a special cream to put on your lips; to protect skin and lips from the sun's harmful rays).

Tell students that you want to know how many of them wore sunscreen lotion and/or lip balm yesterday or today. On the chalkboard, make a table using this format.

	Sunscreen	Lip Balm
Today		
Yesterday		

Tally the number of students who use these products each day. Using the following questions, ask students to make some observations about their sunscreen and lip balm use.

- Which day of the week did most of you wear sunscreen?
- What about sunscreen lip balm?
- Did they use one more than the other?

Congratulate students for wearing sunscreen lotion and lip balm. Tell students that they will learn more about sunscreens in this unit.

ACTIVITY 4.1

Supplies Provided

- None

Supplies Needed

- Chalk, chalkboard
- Photographs or samples of different types of sunscreens and lip balms

Approximate Time

- 20 minutes

Preparation

- None

Learning Activities

4.2 THE 5 W'S OF SUNSCREEN

ACTIVITY SYNOPSIS

Students learn about the 5 W's (What, Who, When, Where, and Why) of sunscreen lotion and lip balm. They also create a sunscreen mobile.

LEARNING OUTCOMES

After this activity, students will be able to:

- Describe how seasons and climate affect the amount of protection sunscreen lotion and lip balm provide.
- Define sunscreen lotion and lip balm and how to use them.

ACTIVITY

Write the 5 W's of Sunscreen (What, Who, When, Where, and Why) on the chalkboard. Present the following key points to explain the Five W's of Sunscreen.

- What is sunscreen? (Sunscreen is a special lotion you put on your skin to protect it from the sun's harmful rays. Sunscreen lip balm is a special cream to put on your lips to protect them from the sun's harmful rays.)
- Who needs to wear sunscreen lotion and lip balm? (Everyone needs to wear sunscreen lotion and lip balm to protect their skin.)
- Where do you put sunscreen lotion and lip balm? (Put sunscreen on all skin that is not covered by clothes or hats. Apply enough sunscreen or lip balm to make a thick layer on skin or lips.)
- When do you need to use sunscreen lotion and lip balm? (Use sunscreens every day of the year, even in the winter and on cloudy days. The sun's rays are stronger during the summer and can damage skin faster so you need to protect your skin from the sun. Apply sunscreen before you go outside. The sunscreen needs time to work. If you go swimming or are playing hard and start to sweat a lot, put on more sunscreen.)

ACTIVITY 4.2

Supplies Provided

- None

Supplies Needed

- Chalk, chalkboard
- Large index cards (4 per student)
- Yarn or string (at least 4 feet per student)
- Colored markers
- Pencils
- Single hole punch
- Adult helper

Approximate Time

- 40 minutes

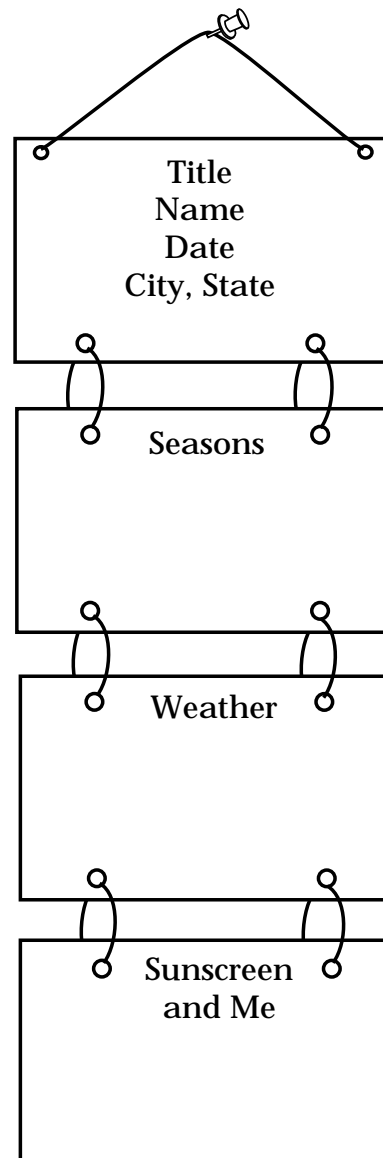
Preparation

- Punch holes in index cards according to the diagram.
- Cut the yarn into lengths of 6-8 inches (6 per student) and 12-15 inches (1 per student).
- Make a sample.

- Why do you need to wear sunscreen? (Sunscreens have special ingredients to protect skin from the sun and help prevent skin damage, such as sunburn, a tan, freckles, and wrinkles. The more sunny days an area has, the more sunlight people receive so it is important to protect skin from the sun.)

Tell students that they are going to make a sunscreen mobile to share what they have learned about being sun safe. See diagram for preparation and assembly.

1. Give each student four index cards—three index cards with two pair of holes and one index card with one pair of holes.
2. Have students write the title of their project, their name, the date, and their city and state on one of the cards with two pair of holes.
3. Have them write the word “seasons” and “weather” on the top of the other two cards with two pair of holes.
4. Have them write the words “sunscreen and me” on the top of the card with one pair of holes.
5. Next, ask students to write about the topic on the lined side of the card and draw a picture about what they wrote on the blank side of the card. Have them do this for all three topic cards.
6. When the students have finished all of their cards, help them assemble their mobiles. Use the short pieces of string or yarn to connect the cards together and the long piece to serve as the hanger.
7. Hang the mobiles in a location where both sides can be viewed.



If time allows, have students share their stories with the class. Summarize this activity with the key points of this unit. Remind students that using sunscreens can help protect their skin and keep it healthy.

4.3 WHICH IS BETTER?

ACTIVITY SYNOPSIS

Students rate the protectiveness of sunscreen products based on their SPF. They also learn how latitude and season affect the time it takes the sun to damage skin.

LEARNING OUTCOMES

After this activity, students will be able to:

- Define Sun Protection Factor (SPF.)
- Identify sunscreen lotion and lip balm.
- Distinguish between sunscreens that provide enough versus not enough protection from the sun's harmful rays.

ACTIVITY

Tell students that they will learn how and why sunscreen lotions and lip balms are different. Ask students to take out the sunscreen photographs or containers. Have students brainstorm different ways to categorize the different types of sunscreens and lip balms they brought to class. (They can be grouped by package color, the SPF number, and type of product).

Introduce the concept of Sun Protection Factor (SPF). Use the following points to discuss how the SPF affects the amount of protection different products provide:

- The SPF number refers to how long the sunscreen protects your skin from the sun.
- Sunscreens with an SPF 15 or greater provide enough protection for skin; they are sun safe.
- Sunscreens with lower SPF numbers are not sun safe; they do not provide enough protection.

Tally the different SPF values of the products. Have students categorize the products (sun safe or not sun safe) and glue or tape them in the appropriate column on the poster board. Ask the class if all of the products were placed in the correct category based on the definition of sun protection.

ACTIVITY 4.3

Supplies Provided

- Activity Sheet 4.3: Which Is Better? (page 4.3.1)

Supplies Needed

- Felt tip marker
- Glue or tape
- Magazine photographs or empty packages of sunscreen lotion and lip balm with the SPF visible.
- One piece of poster board (22 X 28-inches)
- Pencils

Approximate Time

- 30 minutes

Preparation

- Have students bring in photographs or empty packages of sunscreen and lip balm. Tell them to find pictures or products with the SPF number on them.
- Divide the poster board into two equal columns. Title one column "Sun Safe" and the other column "Not Sun Safe."
- Make one copy of the activity sheet for each student.

UNIT 4



Have students complete Activity Sheet 4.3: Which is Better? Discuss the students' responses to the questions.

Summarize the key points of this unit.

Remind students that wearing sunscreen lotion and lip balm with SPF 15 or greater is an important part of being sun safe. You can take responsibility to help your parent or another adult buy sunscreen. You can remind them to help you put on sunscreen everyday before you go outside.

BRIGHT SPOT

Have students take an inventory of the sunscreen products in their homes. Ask them to rate them according to whether or not they provide enough protection from the sun.

Wrapping It Up

4.4 SUNSCREEN FOR SALE!

ACTIVITY SYNOPSIS

Wearing sunscreen and sunscreen lip balm is something that everyone can do and it is an important strategy for staying safe in the sun. In this activity, students will decide how to add up bills and coins in order to buy the best sunscreen and sunscreen lip balm.

LEARNING OUTCOMES

After this activity, students will be able to:

- Determine the amount of money necessary to buy sunscreen and sunscreen lip balm.
- Understand that the most expensive sunscreen product is not always the best product.
- Learn that using sunscreen and sunscreen lip balm everyday is a practical sun protective behavior.

ACTIVITY

Hand out a copy of Activity Sheet 4.4: Sunscreen For Sale! to each student. Tell students that they will need to use their math skills to complete this exercise. Remind students that they should use a sunscreen and a sunscreen lip balm with a SPF 15 or more everyday.

ACTIVITY 4.4

Supplies Provided

- Activity Sheet 4.4 Sunscreen For Sale (page 4.4.1)

Supplies Needed

- Pencils

Approximate Time

- 20 minutes

Preparation

- Make one copy of the activity sheet for each student.

Assessing Student Learning, Unit 4

4.5 ALL ABOUT SUNSCREEN

ACTIVITY SYNOPSIS

Students make Josh and Natalie sun safe and complete statements about sunscreen use.

ACTIVITY

Distribute a copy of Assessment 4.5: All About Sunscreen to each student. Have the students make Josh and Natalie sun safe by circling all the areas of skin that need sunscreen. Next, have them complete statements about sunscreens.

ACTIVITY 4.5

Supplies Provided

- Assessment 4.5:
All About Sunscreen
(pages 4.5.1–4.5.5)

Supplies Needed

- Pencils

Approximate Time

- 20 minutes

Preparation

- Make one copy of each page of the assessment for each student.

4.2 THE 5 W'S OF SUNSCREEN

Answers will vary. Topic cards should mention or illustrate how season and weather affect ultraviolet exposure. The sunscreen and me topic card could include text or illustrations on current or future sunscreen use or how sunscreen use may change depending upon season or weather.

4.3 WHICH IS BETTER?

- | | |
|-------|-------|
| 1. 15 | 5. 20 |
| 2. 15 | 6. 35 |
| 3. 15 | 7. 15 |
| 4. 45 | |

4.4 SUNSCREEN FOR SALE!

Step one: The sunscreen with SPF 30 and sunscreen lip balm with SPF 22 should be circled. The total price is \$5.82.

Step two: Either the five dollar bill, 3 quarters, 1 nickel, and 2 pennies should be circled; or the five dollar bill, 2 quarters, 2 dimes, 2 nickels, and 2 pennies should be circled. Total money should equal \$5.82.

4.5 ALL ABOUT SUNSCREEN

4.5.1

All the areas that are not covered by clothes should be circled.

4.5.2 - 4.5.3

1. Sunscreen
2. lip balm
3. sun
4. face, ears
5. feet
6. Everyone
7. 15
8. sunburn
9. skin
10. everyday

Name: _____

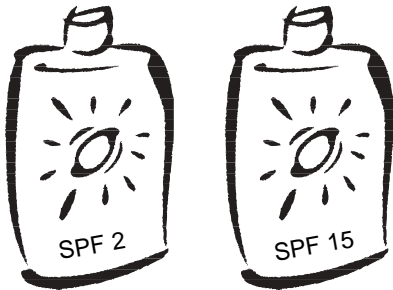
4.3 WHICH IS BETTER?

1. Sunscreen should have an SPF of _____ or more.

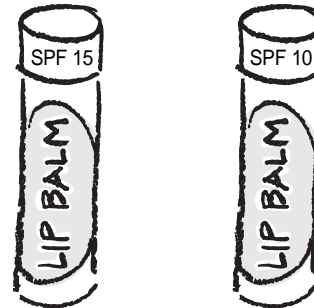
4 8 15 25 30 45

Circle the sunscreen or lip balm that provides better protection from the sun.

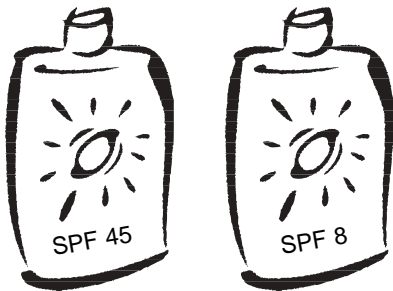
2.



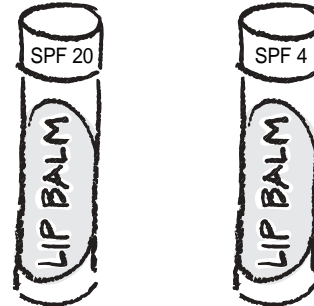
3.



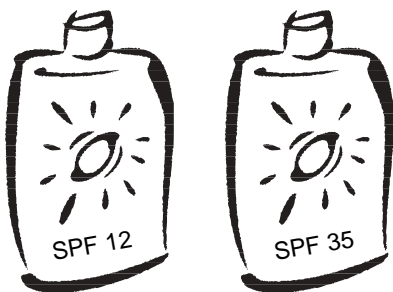
4.



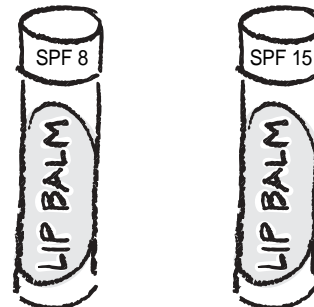
5.



6.



7.



Name: _____

4.4 SUNSCREEN FOR SALE!

Everyone should wear sunscreen and sunscreen lip balm with a SPF 15 or more everyday. Follow the steps below to buy the best sunscreen and sunscreen lip balm.

Step One:

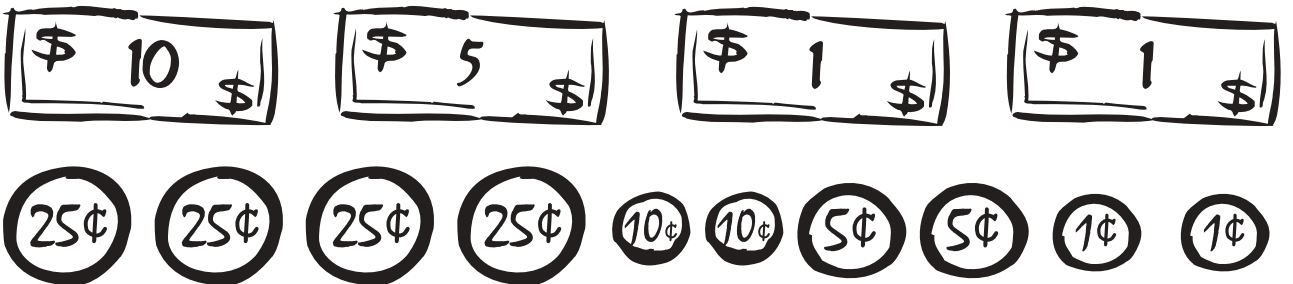
Look at the sunscreens and sunscreen lip balms below. Choose the best sunscreen and lip balm and circle them. Add the prices of the sunscreen and lip balm that you chose and put the answer in the "Total Price" box below.



Total Price \$

Step Two:

Look at all of the bills and coins on this page. Choose the bills and coins that will give you enough money to buy the sunscreen and sunscreen lip balm that you chose in step one (look at the "Total Price" box above to see how much money you will need). Circle the bills and coins you have chosen and add them up in the "Total Money" box at the bottom!



Total Money \$

Do both boxes match?

If not, go back to step two and try again.

Name: _____

4.5 ALL ABOUT SUNSCREEN

Josh and Natalie need to wear sunscreen to protect their skin from the sun. Color all of the places where they need to put sunscreen.



Name: _____

4.5 ALL ABOUT SUNSCREEN

Use these words to complete the sentences below and on the next page.



Lip balm



Sun



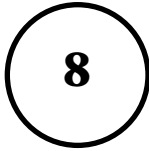
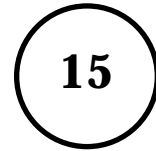
Feet



Ears



Everyday

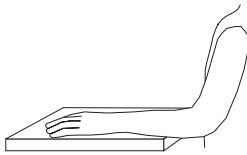


Face



Sunburn

Everyone



Skin



Sunscreen

1. _____ is a special lotion you can put on your skin to protect it from the sun.
2. Sunscreen and _____ with sunscreen need to be put on everyday. They help protect skin and lips from sunlight.
3. The _____ is strongest near the equator.

Name: _____

4.5 ALL ABOUT SUNSCREEN

4. If you do not have a wide-brimmed hat, you can put sunscreen on your _____ and _____ to protect them from the sun.
5. If you are wearing sandals, you can put sunscreen on your _____ to protect them from the sun.
6. _____ should try to be sun safe every day.
7. Sunscreen lotion and lip balm with SPF _____ or more provide the best protection from the sun.
8. Sunscreen can help protect skin from _____.
9. Put sunscreen on all _____ not covered by clothes.
10. It is important to wear sunscreen _____ to protect skin from the sun.