SUN SAFETY FOR ALL

PROTECT YOUR SKIN FROM THE SUN ALL YEAR

Dear Educators and School Nurses,

This free teaching kit from Neutrogena® SkinU and the curriculum specialists at Young Minds Inspired features health, STEM, and ELA activities that reinforce a vital message: No matter the weather, the season, or your skin tone, it's always important to be sun safe!

We hope that you will use the program and share it with other teachers. Please tell us what you think of the materials at **ymiclassroom.com/feedback-suncare**. We look forward to hearing from you.

Sincerely,

Dominic Kinsley, PhD
Editor in Chief
Young Minds Inspired

Questions? Contact YMI toll-free at 1-800-859-8005 or by email at feedback@ymiclassroom.com.

THERE'S MORE ONLINE!

For more resources on sun safety, explore the additional activities and family letter at **ymiclassroom.com/suncare**.

SKINU by Neutrogena

TARGET AUDIENCE

Grades 6-8

COMPONENTS

Available at **ymiclassroom.com/suncare:**

- Activities for Grades 6-8
- Activities for Grades 3-5
- A reproducible family letter (English and Spanish)
- A standards chart
- An online feedback form

CONCEPTS AND SKILLS

• Health and safety • Atmosphere and weather • Making healthy choices	• Critical thinking • Reading informational text • Persuasive writing

HOW TO USE THIS GUIDE

Photocopy the activity sheets for students. Download and send home the family letter or post it on your class website to share sun safety tips with families.

ACTIVITY 1: THE SUN'S RAYS AT WORK

Materials needed: masking tape, clipboards, newspaper, 4x6 rectangles of black construction paper, stopwatch, 3-4 rocks per group

Choose a sunny day to conduct this experiment. Announce the date ahead of time and discuss the sun safety rules students should follow for the lab (sunscreen, long-sleeved clothing, wide-brimmed hat, etc.).

Parts 1 & 2. Distribute the activity sheet and review the lab directions with students. Determine campus locations with different sun exposures to test and assign one location to each lab group of 3-4 students. Support groups as they conduct the lab, checking in with each throughout the 30 minutes.

Conduct a gallery walk of results. Post the questions below and direct groups to discuss their findings and then share them in a larger group discussion.

- *Does your group's evidence support your hypothesis? Explain using examples from your data.*
- *What was the most significant change your group observed over the course of the 30 minutes?*
- *How do your group's lab results compare to those of other groups?*
- *What did you notice about effects on the black paper, which was acting as a screen?*

Part 3. Have students complete the lab conclusion and reflection prompts and share their responses.

When discussing the *Real World Connection*, help students consider how lab results parallel scenarios in our lives, i.e., skin exposure to UV radiation without sun protection parallels newspapers in full sun, unprotected skin on a partly-cloudy day parallels newspaper in filtered light, etc.

Extension Activity: Have students identify Dependent (DV), Independent (IV), and Controlled variables: DV - condition of the paper, IV - level of sun exposure; Controlled - type/brand/size of paper, time of day, duration of exposure.

ACTIVITY 2: LAYERS OF PROTECTION

Distribute the activity sheet and have students read the passage and interpret the image. Once done, review the answers below with the class. Finally, discuss the safety tips with students. Take a class poll to find out students' most often practiced sun safety habits and discuss how they can improve on all the habits.

Explain that the UV Index is a system that tracks UV waves or rays that enter Earth. It uses a scale of 1 to 11+ to predict how strong the UV rays will be each day and how we can help protect ourselves from them. It is a great tool to help us practice sun safety.

Answers: 1. The ozone is located in the stratosphere. 2. UVA waves pass through the ozone layer. 3. UVB waves are partially blocked by the ozone layer. 4. We should practice sun safety every day because the ozone layer doesn't block UVA waves and can only partially block UVB waves, making it possible for us to get sunburned without protection. 5. Student answers will vary but should include reference to the ozone layer's ability to protect us from danger, just like a superhero's shield protects people.

Extension Activity: Have students create a comic or poem about the ozone layer, illustrating it and acknowledging its protective qualities while including information learned in the activity.

ACTIVITY 3: MY AWESOME SKIN IS WORTH PROTECTING

Part 1. Distribute the activity sheet, review the instructions with students, and discuss the answers once done. ***Answers:*** 1. skin, defense, 2. bacteria, ultraviolet, light, 3. thick, visible, barrier, color, follicles, glands, thickest, sensation, insulates, temperature

Part 2. Discuss with students that sometimes there may be challenges to practicing sun safety habits, much like the featured scenarios. Call on student volunteers to role play the scenarios, discussing feelings, conflicts, and possible resolutions for each. Guide students toward resolutions that support sun safety while maintaining respectful interactions.

Extension Activity: After reading the featured sunscreen application tips, screen the "7 Places You're Most Likely to Get Sunburned" video (**https://www.youtube.com/watch?v=LTj5bNLvp_U&t=9s**) with your class.

Protect eyes | Protect face | Wear sunscreen | Avoid intense sun | Cover skin

THE SUN'S RAYS AT WORK

SUN SAFETY FOR ALL

This experiment will help you investigate how the sun's UV rays affect materials outside.

PART 1

Lab Question: How does the level of solar radiation (UV rays) at different campus locations affect the condition of newspaper exposed to the sun for a set time? (See the Newspaper Observation Data table for examples.)

Hypothesis: If we place our newspaper in our assigned location for 30 minutes, then the exposed parts of the newspaper will _____ because _____.

_____

_____

PART 2

Lab Directions: Follow the steps below to conduct your experiment.

1. Tape a sheet of black construction paper over the center of one piece of newspaper. This acts as a screen. Leave the rest of the newspaper uncovered.
2. Place your group's prepared newspaper in your assigned outdoor location. Use tape or rocks to keep it in place.
3. Complete the Environmental Factor Observations chart.
4. Document data at 10-minute intervals using the Newspaper Observation Data table and guidelines below.
5. After 30 minutes, bring your materials back inside and carefully remove the tape and black construction paper from the newspaper.
6. Analyze and discuss the data according to your teacher's directions.

Environmental Factor Observations	
Start Time	
End Time	
Assigned Location	
Weather Conditions (circle one)	clear/sunny partly cloudy overcast
Ground Surface Type (circle one)	grass asphalt concrete other _____
Shade Level (circle one)	full shade filtered light direct sun

Newspaper Observation Data: How Sun Exposure Affects the Newspaper's...			
Time	Color Scale 1 (no change) to 5 (severely faded, bleached, yellowed)	Texture (examples: smooth, brittle, stiff, fragile, damp, etc.)	Shape (examples: flat, curling edges, wrinkling, warping, etc.)
0 mins			
10 mins			
20 mins			
30 mins			

PART 3

Lab Conclusion and Reflection: Use the prompts below to write a lab conclusion and reflection on a separate sheet of paper. Your work must include the following terms: *UV rays, solar radiation, observation, data, evidence, conditions, invisible*.

- Which environmental conditions caused the most damage to the newspaper? What evidence do you have to support this finding?
- *Real World Connection*: Based on the results of this lab, how could different levels of sun exposure affect your health, particularly your skin cells?

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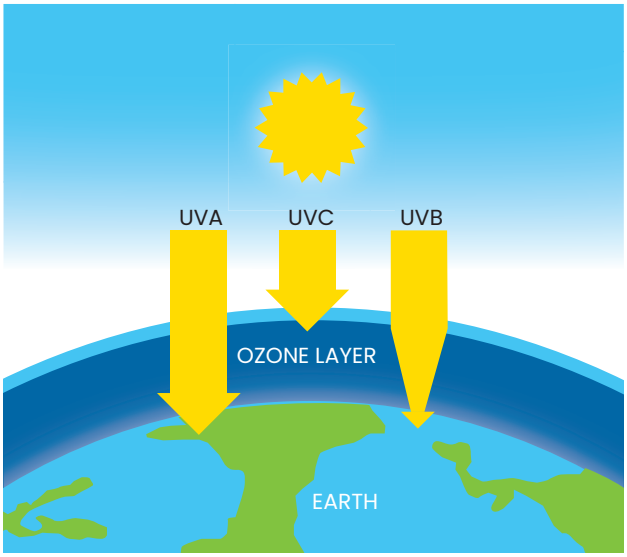
LAYERS OF PROTECTION

SUN SAFETY FOR ALL

Our sun is a cosmic powerhouse, a dynamic star. While its energy is the source of life on our planet, its ongoing nuclear fusion process constantly produces invisible streams of energy, known as ultraviolet (UV) waves, or ultraviolet rays. UV waves carry dangerous radiation toward Earth, causing sunburns and long-term damage to skin tissue.

Lucky for us, Earth has its own planetary defense against UV waves. Acting like a superhero's shield battling space hazards, the ozone layer, located low in the stratosphere layer (which is at the top of our atmosphere), absorbs many of these UV waves. It's a chemical battle, where the reaction between the gases of the ozone layer and the UV waves causes some waves to break down and become absorbed before they ever reach Earth.

There are three types of UV waves, each moving at different wavelengths.



- ***UVC waves:*** the highest energy and potentially most destructive waves. UVC waves are completely absorbed by ozone layer gases before they can even get close to Earth.
- ***UVB waves:*** medium-energy waves that are only partially absorbed by the ozone layer. UVB rays can cause sunburns.
- ***UVA waves:*** long, low-energy waves, nearly all of which slip through the ozone layer, easily reaching Earth. UVA rays can reach deeper into the skin and can cause skin damage.

Think About It! On the back of this sheet, answer the questions below using complete sentences.

1. Where in the atmosphere is the ozone layer located?
2. Which type of UV wave can pass through the ozone layer?
3. Which type of UV wave is partially absorbed by the ozone layer?
4. Why should we practice sun safety every day, no matter the weather?
5. In your own words, describe how the ozone layer is like a superhero's shield and why the ozone layer is so important to life on Earth.

YOUR DAILY SUN SAFETY PROTECTION

The ozone layer is our superhero defender, but it can't block all UV waves. It's important to always practice sun safety habits like these every day, even when it's cloudy:

- Wear a sunscreen that is *broad spectrum* (UVA + UVB protection) and at least *SPF 30* or more – even on cloudy days. Have a parent or caregiver apply sunscreen generously to all exposed skin and reapply it every two hours, and after swimming or sweating.
- Seek shade between 10:00 a.m. and 2:00 p.m. when the sun's rays are strongest.
- Wear clothing to cover your skin like long sleeves and long pants and accessories like sunglasses and a wide-brimmed hat.
- Check the UV Index with a grown-up.
- Follow these tips around sand, snow, and water, too. They reflect the sun's rays.

MY AWESOME SKIN IS WORTH PROTECTING

The *integumentary system* is the body system comprising the skin, hair, and nails and all the nerves and blood vessels that support them.

PART 1 **Understanding Skin:** Unscramble the words in the sentences below to learn more about the largest part of the integumentary system – your skin. (Hint: The first letter of each word is underlined.)

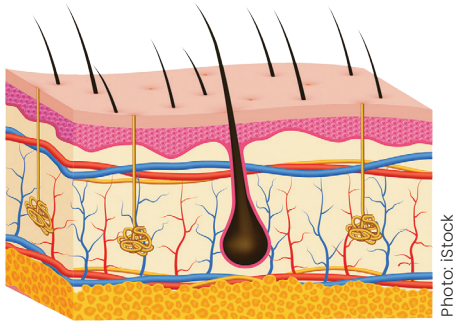


Photo: iStock

1. The ___ ___ ___ ___ (I S N K) is the body's first line of ___ ___ ___ ___ ___ ___ ___ (F E E D S N E) against harmful UV rays.
2. The skin provides a layer of protection against ___ ___ ___ ___ ___ ___ ___ (A B C I E R T A), infection, injury, and harmful ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ (A E L L O R T T U V I) waves of ___ ___ ___ ___ ___ (G H I L T).
3. Weighing around 6 pounds and measuring 2 millimeters ___ ___ ___ ___ ___ (H T C K I), the skin is made of three different layers:

- *Epidermis* – the top layer; a ___ ___ ___ ___ ___ ___ ___ (S I L B I E V), touchable, waterproof ___ ___ ___ ___ ___ ___ ___ (I R R A R E B) that gives your skin its ___ ___ ___ ___ ___ (O L C R O).
- *Dermis* – the middle layer; contains hair ___ ___ ___ ___ ___ ___ ___ ___ ___ (S O L L I E E C L) and sweat and oil ___ ___ ___ ___ ___ ___ (S D A L N G), and is the ___ ___ ___ ___ ___ ___ ___ ___ (S K T E T H C I) layer; controls skin ___ ___ ___ ___ ___ ___ ___ ___ ___ (N N O A S I T S E) of hot and cold.
- *Hypodermis* – the bottom layer, made up mostly of fat, that ___ ___ ___ ___ ___ ___ ___ ___ (S U L I T E N S A) the body and helps regulate body ___ ___ ___ ___ ___ ___ ___ ___ (R U T E P A T E M E R).

SUNSCREEN TIPS!

Sunscreen is important for every skin type and tone. That's why your family should follow these important tips.

- Choose *broad spectrum* (UVA + UVB protection) and at least *SPF 30* or more.
- At least 15 minutes before going in the sun, have a parent or caregiver apply enough sunscreen to generously cover all skin exposed to the sun. Don't forget ears, hands, neck, and tops of feet.
- Check the sunscreen label for *water resistance* times.
- Check the *expiration date* on the label. Sunscreen can become less effective after it expires.
- Check the clock. Have a parent or caregiver reapply sunscreen at least every 2 hours and immediately after swimming, sweating, or towel drying.

PART 2 **Sun Safety Scenarios:** Sometimes you might feel pressured when it comes to making sun safe decisions. What are some respectful ways to manage events like these?

1. It is 12 noon and you are at a summer birthday party outdoors. Your friends tease you about wearing a long-sleeved shirt when everyone else is wearing sleeveless shirts.
2. During a basketball game, a teammate tells you not to go to your dad to reapply sunscreen because it makes your hands too slippery to play.
3. You pull out a wide-brimmed hat in the park, and your friends joke that it makes you look like somebody's grandparent.
4. You're at the beach and tell your friends to wait to go on your walk so you can have your mom reapply sunscreen. Your friends tell you that's silly because the whole point of being there is to get a tan.