

# Teacher Instructions

## Before You Begin

Copy and distribute the pre-assessment sheet to discover what students know about the sun and sun safety. At the end of the program, have students take the assessment again to assess their learning. When you help us evaluate the program, you'll be entered for a chance to win \$500! Go to [scholastic.com/sunsafety](http://scholastic.com/sunsafety) to learn more.

**Answer key** 1. False; 2. True; 3. False; 4. False; 5. False; 6. False; 7. True; 8. False.

## Lesson One: The Power of the Sun

**Objective** Students will learn about the sun and how the energy it produces impacts Earth and people.

**Materials** Poster, copies of "The Power of the Sun" activity sheet, pencils, student pre-assessment sheet, access to a computer to research the UV Index

### Get Started

1. To introduce this lesson, challenge your students to describe three reasons why we need the sun as well as three ways the sun can cause damage to our skin. Make sure to discuss how Earth needs the sun for light and warmth and to grow food.
2. Ask students whether they think the light and warmth from the sun are the same everywhere on Earth and then discuss the different types of climates around the world. Ask: *Where is the sun stronger and where is it weaker?* Talk about the type of weather you have in your area; ask students: *Are you in the mountains or in the southern part of the country, closer to the equator?* Explain that no matter what climate you live in, the sun's rays reach Earth and your skin.

### Use the Student Activity Sheet

1. Distribute copies of "The Power of the Sun" activity sheet. Read it aloud as a group, or have older students read it on their own.
2. Explain that there are two main types of UV rays: ultraviolet A (UVA) rays, which penetrate into the dermis (the skin's thickest layer), and ultraviolet B (UVB) rays, which are responsible for producing sunburn on the skin's surface. After discussing how the UV Index helps warn us about harmful rays, share the day's UV Index for your area with students to reinforce the concept. Index numbers can be found at: [epa.gov/sunsafety/uv-index-1](http://epa.gov/sunsafety/uv-index-1).
3. After students have reviewed the text have them answer the following questions: 1. *What does the sun send to Earth?* 2. *What is the UV Index?* 3. *At what time of day is the sun the strongest?* 4. *How can you protect yourself from the sun?*

### Critical Thinking

Ask students to describe any sun safety practices they may follow and if there are any times when you don't need to protect your skin from the sun. Have students name those times. For each statement, make sure you counteract the myths with the facts. Make sure these points are addressed in the discussion:

- We have to protect our skin all year round; no matter what climate we live in and even on cloudy days.
- UV rays can damage anyone's skin, regardless of skin color.
- You need to apply sunscreen regularly throughout the day, and being in the ocean or a pool does not protect skin from the sun.

Review and encourage students to practice the sun safety tips on the poster.

**5th-grade extension** As an independent activity, have students select five diverse geographic locations. For a week, have them track the UV Index in these locations and compare them. Have students write a report on what they have found, specifically how geography and climate impact the number.

**Supporting Lesson** Complete the learning online with a **hands-on experiment** where students will learn about how their shadow length indicates when the sun's rays are most harmful: [scholastic.com/sunsafety](http://scholastic.com/sunsafety).

## Lesson Two: Understanding and Protecting Our Skin

**Objective** Students will learn about skin and how to protect it from the sun's UV rays.

**Materials** Copies of the "What Is Skin?" activity sheet (you'll find this in Part 2 of the program), pencils

### Get Started

1. Challenge your students to think of all the ways we keep our bodies healthy. (Answers may include eat healthy foods, get sleep, brush teeth, avoid things that could harm us, etc.). Ask students what job they think skin has and what we can do to keep it healthy. (Answers may include: keep it clean, take care of cuts, wear sunscreen, etc.). Explain that the sun is key to life on Earth but protecting our skin is key to healthy living.

### Use the Activity Sheet

1. Distribute copies of the "What Is Skin?" activity sheet. Read the page aloud or have older students read it independently.
2. Explain that UV rays can cause sunburns. They can also weaken our skin's cells, making it harder for the body to fight infection and disease. This is why we need to help our skin protect our bodies, no matter what color our skin is, and no matter what time of year it is.
3. After students have reviewed the text have them answer the following: 1. *List three things the skin does.* 2. *Name the layer of skin where skin cells are made.* 3. *List three things you can do to help protect your skin.*

### Follow-Up Activity

Using the poster as reference, encourage students to think about the sun protection adaptations that animals have adopted to protect themselves from the sun. Explore how animal behavior can be similar to the ways humans protect themselves from the sun and then review the sun safety tips.

**5th-grade extension** Have students research three animals comparing and contrasting the way they protect themselves from the sun. Explain how behavior varies by climate.

**Supporting Lesson** Go online to continue the fun with a **hands-on project** to learn more about the skin: [scholastic.com/sunsafety](http://scholastic.com/sunsafety).

### Complete the Unit

Copy and distribute the post-assessment sheet to evaluate what students have learned about the sun and sun safety.

Learn about Ray and the Sunbeatables®, a curriculum for preschoolers, kindergarteners, and first-grade students at [sunbeatables.org](http://sunbeatables.org).