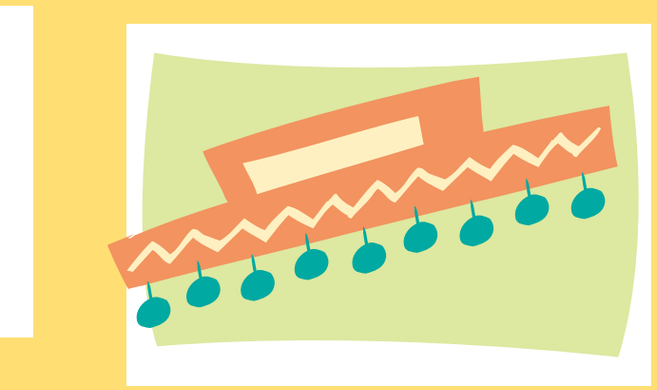
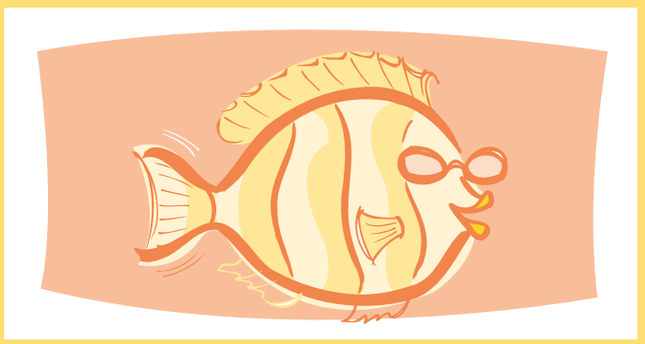
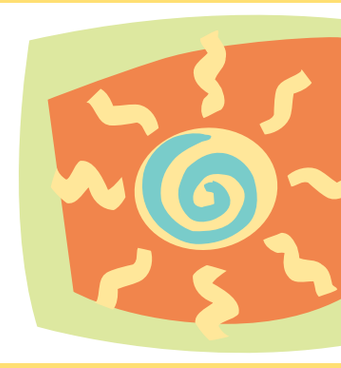
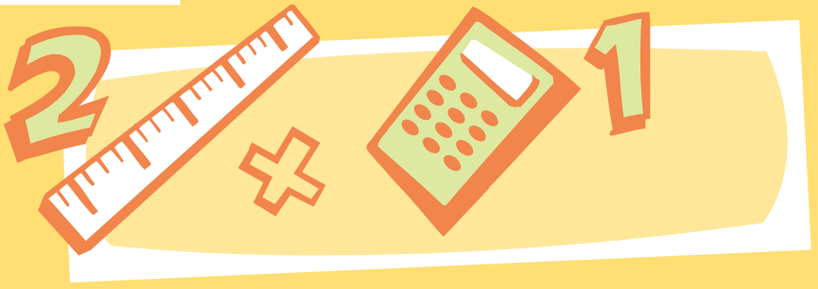
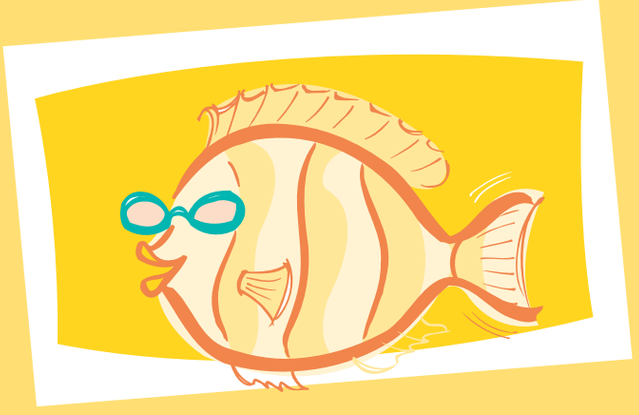
grades K-2

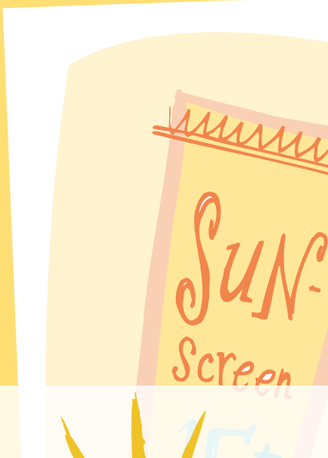


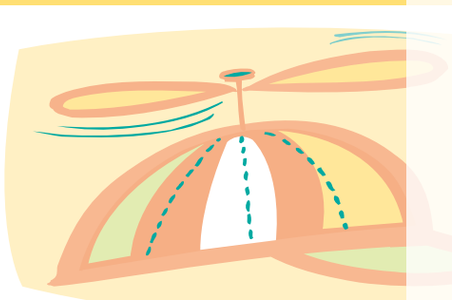












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		English Language Arts							Health				Mathematics						Physical Education					Science		Social Studies	
	EDUCATIONAL STANDARDS	Standard 1	Standard 3	Standard 5	Standard 7	Standard 8	Standard 9	Standard 12	Health Concepts	Decision-making Skills	Goal-setting Skills	Health Enhancing - Behaviors and Risks	Numbers & Operations	Algebra	Data Analysis & Probability	Problem Solving	Connections	Representations	Movement Forms	Physical Activity	Physical Fitness	Responsible Behavior	Respect for Others	Science as Inquiry	Physical Science	Culture	People, Places, and Environment
SUNWISE ACTIVITY TITLE	**SUBJECT**																										
A SunWise Legend	English/LA, Social Studies	X	X				X	X																		X	
Hot Potato with the Sun	Health, P.E.								X										X	X			X				
A SunWise Beach Party	Math												X	X		X											
Buy SunWise	Math												X	X	X		X	X									
Speedy Sun Relay Race	P.E., Health									X	X	X							X	X	X	X	X				
Sunny Says	P.E., Health										X								X	X			X				
Watch Your Shadow	Science																							X	X		
The Sun Shines Around the World	Social Studies, English/LA			X	X	X	X	X																		X	X
Supplemental																											
Wacky Paper Sunglasses	Art																										
SunWise Word Search	English/LA																										

A SunWise Legend

Wise Heart Saves the Day[1]

Once upon a time, a very long time ago, there lived a young Indian boy who was both smart and kind and who longed to make the world a better place for his people. His name was Wise Heart, and he belonged to the Cahto Indian Tribe that lived in what is now northern California. The world in which Wise Heart lived was cold and barren, with few plants or trees. During the day, his world was gloomy and grim, lit by only a faint, dim light that seemed to come from very far away. At night, his world was always cloaked in deep darkness, a darkness that was broken only by the campfire and the torches that the elders were allowed to carry.

Wise Heart knew that the world had not always been such a dark and gloomy place. Sometimes as his tribe huddled around the campfire at night, the elders told stories—ancient stories—of a time when a bright light they called the Sun had warmed the world during the day, while its distant relatives, the Moon and Stars, had filled the night. Wise Heart had also seen the ancient tribal cave paintings that showed a world filled with the bright light of the Sun and with towering trees and plants. Whenever Wise Heart or the other children asked the elders how the world had lost its Sun, Moon, and Stars, the elders would become quiet and warn the children not to ask such questions.

One night, while Wise Heart slept, he dreamed of the beautiful, Sun-filled world that he had seen in the cave paintings. There were blue skies, trees laden with delicious fruit, and smaller plants with fragrant flowers. Then, in his dream, he heard the sound of a fiercely shrieking wind, and the Sun suddenly seemed to be torn from the sky, leaving only a dim glow in its wake. Wise Heart woke from his dream troubled and unable to fall back asleep.

When the dim light of day returned, Wise Heart cautiously approached the oldest and most respected of the elders, a stooped old man named Running Water. The boy recounted his dream and asked the old man if he knew what had happened to the Sun so many years before. At first Running Water scolded the boy and warned him not to wonder about such things. Finally, however, seeing the boy's determination to know the truth, Running Water relented. He told the boy that many years before, an evil spirit had become jealous of the brilliance and warmth of the Sun and had stolen it from the sky and hidden it in a deep canyon on the far side of the world. The evil spirit had also stolen the Moon and Stars and hidden them away as well so that the humans would not have enough light to be able to search for and free the Sun from its captor. From that day on, Running Water explained, the world had been dimly lit. Bound with thick ropes to a giant boulder, the Sun could make only a few of its rays reach above the edge of the deep canyon.

All that day Wise Heart thought about Running Water's words. He watched his people as they struggled to survive by eating the few fish in the stream and few small plants on the hillsides. By the time darkness fell, Wise Heart had made a decision. He would journey across the mountains, to the far side of the world. He would find the deep canyon where the Sun, Moon, and Stars were being held by the evil spirit, and somehow, he would free them. That, he decided, was how he would help make the world better for his people.

Early the next morning, Wise Heart set out for the distant mountains, carrying only a skin of water, some dried fish, and a sharp knife. As he traveled, he asked the kind spirits of his people to help him, and they did. Guided by a fierce and powerful eagle and thousands of fireflies, Wise Heart found his way through the steep, dark mountain range. Next, a sure-footed mountain

goat led him to the edge of the deep canyon in which the Sun, Moon, and Stars were being guarded by the evil spirit. Finally, a family of field mice offered to chew through the ropes that bound the Sun, Moon, and Stars while Wise Heart distracted the evil spirit. Accepting their offer of help, Wise Heart climbed cautiously over the rim of the canyon and slowly began to climb down the steep cliff toward the canyon floor below. Just as he reached the bottom, the silence was suddenly pierced by the same sound of shrieking wind that he had heard in his dream. The evil spirit, red-faced and shaking with rage, stepped between Wise Heart and the Sun, Moon, and Stars and demanded to know why the boy had intruded in his canyon. Before Wise Heart could answer, the evil spirit noticed the boy's water skin and demanded that he be given some water to quench his thirst and to cool his Sun-scorched body. In reply, Wise Heart said, "Powerful spirit, I am happy to give you all my water, but first let me add some special herbs which will quench your thirst and cool your Sun-scorched body better than plain water." The evil spirit agreed, and after Wise Heart had added the herbs, which were really sleeping herbs, he drank the water greedily. Soon after, the evil spirit fell asleep.

Immediately, the family of mice began gnawing through the thick ropes that held the Sun, Moon, and Stars captive. When they had almost completed their task, the evil spirit, hearing the deep rumbling of the Sun as it slowly began to ascend into the sky, woke from his slumber. With a piercing shriek, the evil spirit rushed to recapture the Sun, but before he could do so, Wise Heart quickly cut through the remaining fragments of rope with his knife. Holding tightly to the ends of the rope, Wise Heart and the mice sailed into the sky. A short time later, as the Sun passed over Wise Heart's village, they jumped safely into the soft boughs of the tallest fir trees. From there, Wise Heart looked up to see the first and most beautiful sunrise that he would ever see.

Wise Heart returned to his tribe as a hero. The people hailed him as the Sun Guard and thanked him for returning light and warmth to the day and light to the night. Almost immediately, the trees and plants began to grow larger, and the people danced and celebrated in the warmth and brightness of the Sun. After several hours, however, the people began to complain. They said, "It's too hot! I'm thirsty!" Others complained of feeling tired and of their skin feeling red and sore. Wise Heart was amazed that his gift that had at first caused so much joy was now causing so much pain and discomfort. He thought for a moment and then quickly led his tribe to the river's edge. There he told his people to drink deeply and to coat their skin with mud from the riverbank. He told them, "The mud will soothe your skin and protect it from the powerful rays of the Sun," and they found that he was right. Now Wise Heart was truly a hero. His tribe could now enjoy the Sun and all the beauty it gave to the world, without being hurt by its powerful rays. Even today, Wise Heart is a hero, for though he did not know it, he had developed the first sunscreen with an SPF of 45!

[1] Written by Jane Shanny, an educator, parent, and member of the Advisory Board of the Children's Melanoma Prevention Foundation.

A SunWise Legend

Estimated Time
15–20 minutes

Supplies
Large paper
Markers
Paper for drawing
Crayons

Learning Objective
The students will learn that people from all over the world have different stories about the sun. Before the story is read, ask the students about the power of the sun, both good and bad. Write their ideas on the paper and then cover it up. After reading the story assess what they have learned by asking them to write a story about the sun and why it is important to people around the world.

Directions
Read to your class "Wise Heart Saves the Day," a legend about the origin of the sun inspired by the Native American Cahto Tribe of California (on the Student Page of this activity). Discuss with them the location of California in relation to where you are located. While doing this, explain to them that people from all over the world have different ideas and beliefs about the sun. Discuss what they remember from the story. Ask students to make up a story about the sun. Ask them why the sun is so important that people from all over the world tell stories about it (e.g., it makes plants grow, provides light). Suggest checking out a book about the sun the next time they go to the library.

Hot Potato with the Sun

Estimated Time
Teacher's discretion

Supplies
Ball (preferably yellow)
Music

Directions
Have the students make a large circle and pretend the ball is the sun. Students pass the ball to each other as music plays. When the music stops, the student with the ball should say one way to protect themselves from the sun. For more sun safety tips, please see the *SunWisdom* section of the Tool Kit.

Students should do the SunWise Word Search supplemental activity located in the back of the K–2 section of the Tool Kit as a follow-up to this activity.

Hippos secrete their own oily pink sunscreen.

A SunWise Beach Party

Directions

You and some of your classmates are having a SunWise Beach Party. What will you bring? Look out because some of your classmates might not be 100 percent SunWise! Answer the questions.

Questions

How many students bring  ?

3 6 2 4

How many students bring  ?

7 4 3 5

How many students bring  ?

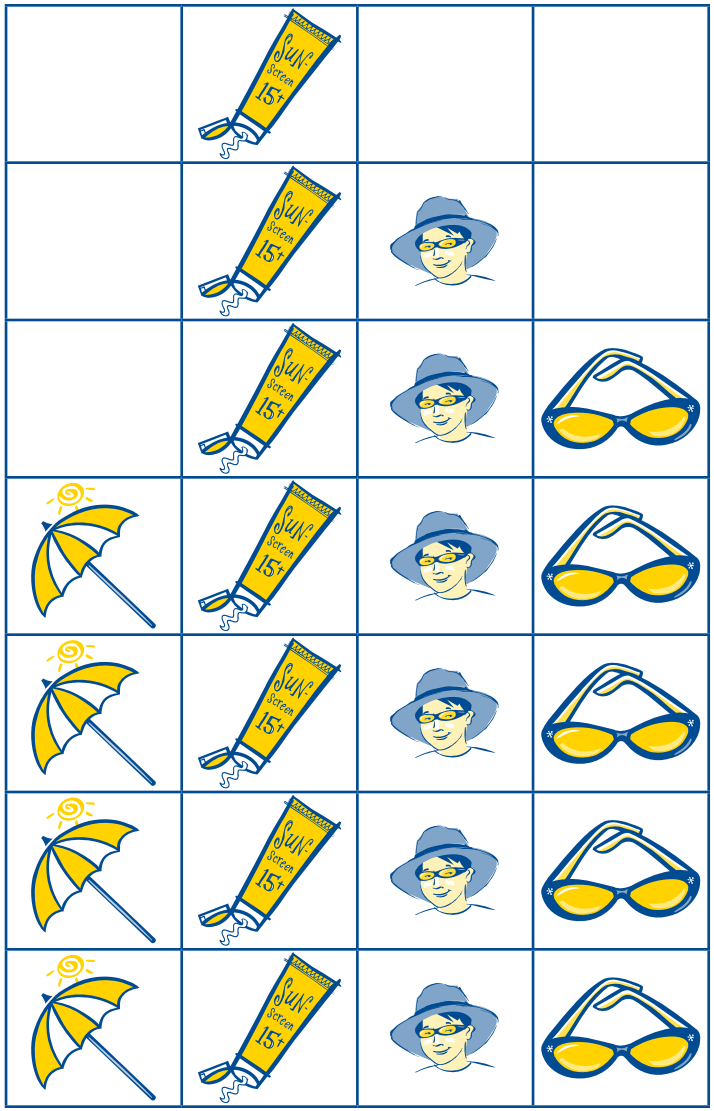
6 3 5 7

How many students bring  ?

4 6 2 5

How many students bring all SunWise items?

7 1 5 4



A SunWise Beach Party

Estimated Time
15 minutes

Supplies
Crayons or pencils

Learning Objective
The objective of this activity is to have students answer questions and interpret data about the variety of ways they can protect themselves from the sun's harmful UV rays. After completing this activity, students should understand that using sunscreen, hats, sunglasses, and umbrellas are examples of SunWise behavior. Assess whether the students understand they must protect themselves from the sun's harmful UV rays by asking them to draw a picture of their SunWise family on a visit to the beach or park.

Directions
In preparation for this activity, discuss with your students the importance of being SunWise. Stress the prevention steps as listed in the *SunWisdom* section of the Tool Kit.

Questions and Answers
How many students bring beach umbrellas?
3 6 2 **4**

How many students bring sunscreen?
7 4 3 5

How many students bring hats?
6 3 5 7

How many students bring sunglasses?
4 6 2 **5**

How many students bring all SunWise items?
7 1 5 **4**

Camels have bumps over their eyes that act as built-in sun visors to help keep out bright sunlight.

Buy SunWise

Directions

Your class is taking a trip to the store to buy sun-safe products.

Select the coins and bills you need to buy each SunWise item.

dollar $1.00

quarter
$.25

dime
$.10

nickel
$.05

penny
$.01

$5.79

$4.34

$6.27

$9.67

$8.89

Buy SunWise

Estimated Time
20–30 minutes

Learning Objective
The objective of this activity is to help students visualize sun-safe products and familiarize them with the process of making such purchases. Assess whether the students understand the importance of having sun-safe items to protect themselves from the sun's harmful UV rays. Ask them to pick the items they would buy and draw a picture of themselves using them. For example, one such picture could be a little girl wearing a wide-brimmed hat and sunglasses and applying sunscreen.

Directions
This activity allows students to practice their addition skills with money while being reminded of sun-safe items. Each picture on the student page has a price tag to indicate its cost. Select the activity that is the most appropriate for your students.

- Instruct the students to draw the appropriate combination of coins and bills needed to purchase the product.
- Include a page of dollars and coins for the students to cut out and glue/paste next to the items.
- Instruct students to draw a circle/box and write the value of the coin/bill in the circle/box. Some students may take too long trying to draw the details of the money and not complete the activity.

The skin is the largest, most visible organ of the body and is the fastest growing part of the body. It makes up 16 percent of the body's weight.

Meerkats have black rings around their eyes that absorb the sun's rays and protect their eyes from sun damage.

Speedy Sun Relay Race

Directions

One student in your group will be the "model." The model's job is to dress in sun-safe clothes as fast as possible with the help of the team. Across the field will be a pile of clothes. Each team member, besides the model, will take turns running to the pile, selecting one sun-safe item, and running it back to the model. The first team to have a completely SunWise model is the winner!

Polar bears have special eyelids that act like sunglasses and shield their eyes from the blinding glare from the sun's rays reflecting off of the snow.

Rhinos use mud as a natural sunblock. They roll over in the mud to make sure they have a thick coating on their skin to protect themselves from the sun.

Speedy Sun Relay Race

Estimated Time
30 minutes

Supplies
One set of the following SunWise and non-SunWise clothes and items for each team:

Long-sleeved shirt (preferably with collar)
Long pants (optional)
Hats (wide-brimmed, cowboy)
Sunglasses
Empty bottles of sunscreen, some with SPFs of 15 and higher, some with lower SPFs.
Shoes (optional)
Various other articles of clothing that are not sun safe, like tank tops, t-shirts, shorts, baseball caps, visors, etc.

Note: Make sure that the clothes are large enough for each student to put on and take off easily.

Learning Objective
This activity will challenge students to think quickly about sun-safe behavior by selecting correct sun-safe clothes when presented with several options. Assess whether the students learned how these clothes will help protect them from the sun's harmful UV rays by asking them the following questions:

- What are three items that the model is wearing that you would pick to protect yourself? Explain why you chose these three items.
- How many of you dress like the model when you play outside? Why do you think dressing like this is safer for you?
- What will you remember to put on before you leave your house to protect yourself from UV rays? Explain why you would take these actions.

Directions
Organize the class into teams of five or more and line them up at the start of the racecourse. Place the pile of clothes at the other end of the racecourse.

Have each team select one student to be the SunWise model. This student will stay at the starting point of the race, donning sun-safe clothes. The other team members should each take turns running to the pile of clothes, selecting one item, and bringing it back to the model.

The first team to have a completely SunWise model is the winner. The SunWise models should be wearing a protective hat, long-sleeved shirt, and sunglasses, and be carrying a bottle of sunscreen with SPF of 15 or higher. Incorrectly dressed models must decide what they are missing, and the other team members must continue bringing back items until the model is sun safe.

Sunny Says

Estimated Time
20 minutes

Learning Objective
This activity will teach children to distinguish between the helpful and harmful effects of the sun. Assess the students by asking them to tell you the effects of overexposure to the sun and not wearing sunscreen and proper clothing. They should also list some positive effects of the sun.

Discussion Point
Discuss with the class the importance of protecting themselves from the sun. Too much sun can hurt the skin and eyes. On the other hand, the sun is beneficial because it helps our bodies make vitamins and helps things grow, such as fruits, vegetables, flowers, and trees (which provide protective shade).

Physical Education Variation:
Have children line up side-by-side or in small groups/teams of two to three students. Children take three big jumps (giant steps, or other appropriate movement) forward after every correct response. Those who respond incorrectly remain still but advance the next time they respond correctly. The goal is to reach the other side of the field as either an individual or team. The first individual or team at the finish can share with others what they know to be correct "Sunny Says" actions and why it is important to know and practice this behavior.

Directions
The format follows "Simon Says."

For example:

Sunny Says grow like a tree.

Sunny Says put your hat on.

Take your hat off.

Sunny Says protect your nose.

Sunny Says sprout like a flower.

Sunny Says put your shades on.

Take your shades off.

Sunny Says look at your watch.

Sunny Says find your shadow.

Sunny Says put sunscreen on your nose.

Sunny Says put sunscreen on your arms.

Sunny Says read the SPF number on the sunscreen container.

Students responding to a non-"Sunny Says" command will be eliminated from play. Continue the game until there is a winner.

Watch Your Shadow

Directions

Using the sun as your light, you are going to trace your shadow. Choose a partner and stand in the sun on the sidewalk or blacktop. With a piece of chalk, your partner will trace your shadow starting from your feet. Write your name in your shadow.

Later in the day, trace your shadow again. Remember to position your feet in the same spot.

Questions

1 Is your shadow always the same size?

2 Can the moon make shadows?

3 What is the shadow rule?

Watch Your Shadow

Estimated Time
At least two 15-minute intervals during one day

Supplies
Chalk (use different color chalk for each time of day you trace your shadow)
School yard with dark cement or blacktop
Clear, sunny day
Watch or clock

Learning Objective
The objective of this activity is to demonstrate to students what causes a shadow, how shadows change from morning to evening, and how they can tell by the length of their shadows what times of day they should seek protection from the sun's harmful UV rays. Ask the students to guess how their shadow will change during the day. Once the day is over, ask them to compare their prediction to the actual shape and size of their shadow.

Directions
Take the students outside in the morning and again around noon. Have students choose a partner. Instruct the students to trace their partner's shadow using a piece of chalk on the cement surface of the schoolyard. They should begin tracing the shadow from the feet. Write the time students traced their shadows so later they can see how the different positions of their shadows correlate to the time of day.

Go outside later in the day and have each student stand on the feet of their first shadow tracing. Instruct them to have their partner retrace their new shadow on top of the original.

Discussion
Discuss how shadows are formed. A shadow is a dark figure or image cast onto the ground by our bodies blocking the light of the sun. Both the sun and the moon can create shadows. We have noticeable shadows throughout the day; however, our shadows are much shorter closer to noon when the sun is overhead. Explain to the students that when their shadows are long (during the early and late parts of the day) the sun is not as intense. When their shadows are short (during the middle part of the day) the sun is more intense, and they are at a greater risk from the sun's damaging UV rays. Also mention that visible light causes shadows, not UV rays. UV rays are present even on cloudy days. Nevertheless, the shadow rule is a good indication of UV intensity. Teach the students the shadow rule, "Watch your shadow. No shadow, seek shade!"

Questions and Answers

1. Is your shadow always the same size? *No. Your shadow is long in the early morning and late afternoon, and short during the midday.*
2. Can the moon make shadows? *Yes. When there is a full moon, the light is bright enough to create a shadow, but no UV rays are emitted from the moon.*
3. What is the shadow rule? *"No shadow, seek shade."*

The Sun Shines Around the World

Estimated Time
20–45 minutes

Supplies
Map of the world (for display)
Magazines and photos of foreign places and people

Learning Objective
This activity teaches students about a variety of ways people all over the world protect themselves from the sun's harmful UV rays. After completing this activity, students should be able to describe at least two different ways individuals from the country investigated practice sun safety.

Directions
Choose a country to research. Perhaps you have been on an exciting trip and would like to share your photos or postcards with your students. Discuss the chosen locale, its people, and customs, especially pertaining to sun protection. Use the questions to stimulate discussion and to reinforce sun safety lessons.

Vocabulary Words
Custom—A habit or an established way of doing something.

Questions and Answers
1. What is the name of the country researched? *Students should be able to name the country.*
2. Where is the country? *Students should be able to point to the location of the region on the map.*
3. What types of houses do the people live in? *Answers should match according to the country researched.*
4. What kinds of clothes do the people wear? *Answers should match according to the country researched.*
5. What are three differences between your home state or town and the place researched? *Answers should match according to the student's home state or town and the country researched.*

Additional Resources
www.nationalgeographic.com/maps/index.html
Offers a variety of interactive map tools and a brief summary of each country of the world, such as goods produced, literacy rates, or GDP.

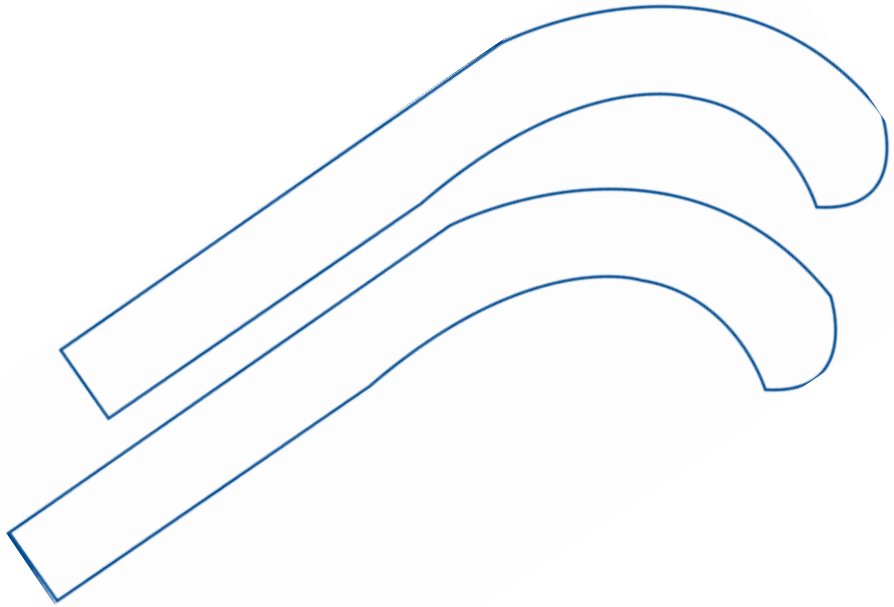
Wacky Paper Sunglasses

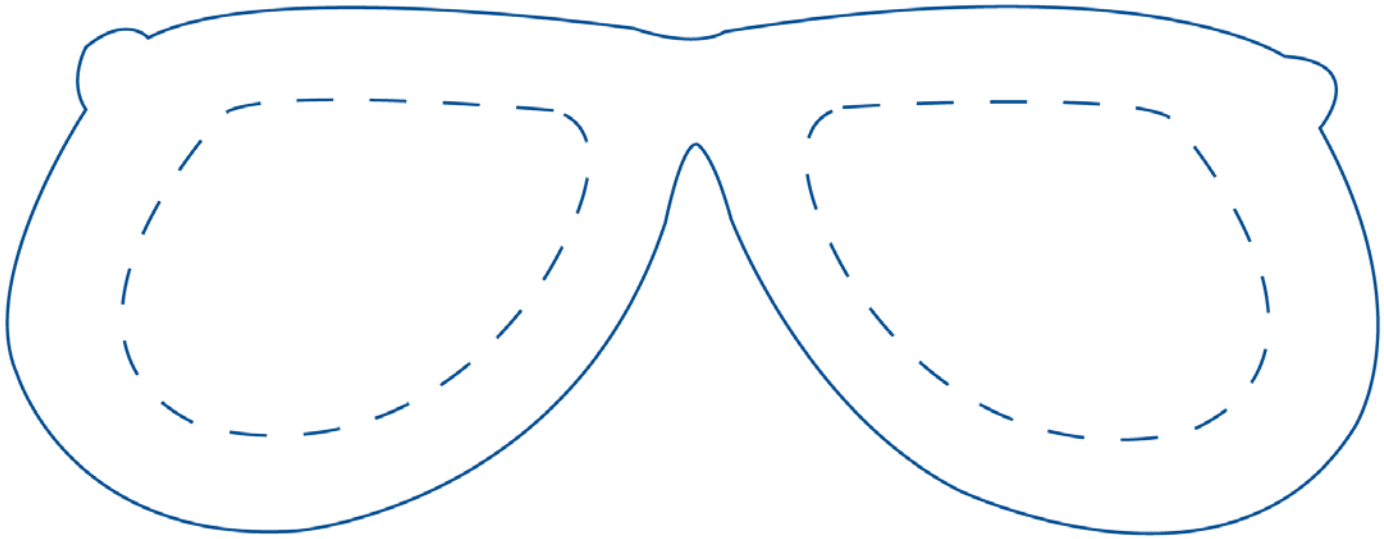
Supplemental

Directions

1. Cut the sunglasses out of your paper.
2. Cut out the eyepieces of your sunglasses.
3. Choose a color of cellophane for your eyepieces.
4. Glue the pieces of the sunglasses together. Spread glue on the eyepiece frame and glue the cellophane paper onto your sunglasses.

   Now, make your sunglasses wacky by decorating them!





Wacky Paper Sunglasses

Supplemental

Estimated time
20 minutes

Supplies
Scissors
Glue
Pencil
Cellophane sheets in various colors
Crayons or other decorations
Colorful construction paper (optional)

Learning Objective
The objective of this activity is to demonstrate the importance of wearing sunglasses to protect your eyes from the sun's harmful ultraviolet (UV) rays. Assess the students by asking them what they know about sunglasses and eye protection before starting the activity. Afterwards, ask what they learned from this lesson. Did it teach them anything new about cataracts and the importance of wearing sunglasses? What will they do differently now when outside?

Discussion
Discuss with students the importance of wearing sunglasses. Explain that appropriate sunglasses provide 99–100 percent UV protection, which will reduce sun exposure to your eyes. Demonstrate the UV blocking power of sunglasses by using the UV-sensitive Frisbee®. Place sunglasses on the Frisbee, expose the Frisbee to UV (take outside) and watch the Frisbee change color in a few seconds. Explain to the students that the sunglasses block the UV rays, thus keeping the area beneath the sunglasses from changing color.

UV rays can cause cataracts and other eye damage. Cataracts are a form of eye damage in which a loss of transparency in the lens of the eye clouds vision.

Directions
If time permits, create your own pair of wacky sunglasses to show your class. You may also want to copy the sunglasses template and alter it to become a "connect the number dots" activity.

Instruct students to either cut out the sunglasses provided on the Student Page or draw and cut their own out of a colorful piece of construction paper.

Next, students should cut out the eyepieces. You should have some of the cellophane pieces cut out in squares to fit the frame of the sunglasses.

Instruct the students to spread the glue around the edges of the eyepiece and place each cellophane piece within the eyepiece frame area. After the glue is dry, students can decorate the rest of the glasses.

Instruct students that the cellophane they are using for the lenses in the sunglasses does NOT protect against UV rays. Explain to students how to look for and read the tag found on sunglasses in the store so that they will select glasses that offer adequate protection.

SunWise Word Search

Supplemental

Directions
Find and circle
the SunWise words.

HAT
LIP BALM
LONG SHORTS
SHIRT
PANTS
SUNGLASSES
SUNSCREEN
TREE
SHADE

L	A	B	C	D	P	E	F	S	G	H
I	I	J	K	L	A	M	N	U	O	S
P	Q	P	R	S	N	T	U	N	U	H
W	X	Y	B	Z	T	A	B	S	E	I
A	E	F	G	A	S	H	I	C	D	R
T	R	E	E	K	L	L	M	R	A	T
O	P	Q	R	S	T	M	U	E	H	W
H	A	T	X	Y	Z	A	B	E	S	D
E	F	G	H	I	J	K	L	N	M	N
L	O	N	G	S	H	O	R	T	S	O
S	U	N	G	L	A	S	S	E	S	P

SunWise Word Search

Supplemental

Word Search Words

HAT
LIP BALM
LONG SHORTS
SHIRT
PANTS
SUNGLASSES
SUNSCREEN
TREE
SHADE