## grades 6-8




LINH
a program that radiates good ideas
A Partnership Program of the U.S. Environmental Protection Agency www.epa.gov/sunwise

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## SUNWISE ACTIVITY TITLE

| A Sunny Performance | English/LA, Art |
| :---: | :---: |
| SunWise Show | English/LA, Art |
| Sun Scoop | English/LA, Health |
| SunWise Virtual Vacation | English/LA, P.E., Sodial Studies, Computers |
| Sun Mythology | English/LA, Social Studies |
| Sunsational Scientists in History | English/LA, Social Studies |
| The Sun Shines Around the World | English/LA, Social Studies |
| Why Does Winter Make Some People SAD? | Health |
| Sun Safe Beach Party | Health, P.E. |
| UV Frisbee ${ }^{\ominus}$ Fun | Health, P.E. |
| Personal Skin Assessment | Health, P.E., Social Studies |
| Bargain Shopper | Math |
| Skin Cancer in Your State | Math |
| The SunWise Surveyor | Math |
| You Are the Architect | Math, Art |
| Detecting UV Light Using Tonic Water | Science |
| Gumdrop Science | Science |
| UV Frisbee ${ }^{\circledR}$ Science | Science |
| BeA SunWise Traveler | Social Studies, Math, Science, Computers |
| Supplemental |  |
| SunWise Flier | Art, Computers |
| SunWise Word Problems | Math |
| UV Meter Activities |  |
| What Works? Effectively Blocking UV Rays | Science |
| Chart and Graph UV Intensity | Science, Math |
| Reflecting UV Radiation | Science, Math |

English EDUCATIONAL STANDARDS
Standard 1


Health | Decision-making Skills |
| :--- |
| Goal-setting Skills |
| Health Enhancing - Behaviors and Risks |
| Personal, Family, and Community Health |


Algebra


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Mathematics
Physical
Education
Science Studies

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| Science as Inquilen |
| Physical Science |
| Earth \& Space Science |




## SunWise Surveyor

## Directions

You are a surveyor. You measure and map land areas and have been assigned to determine the current availability of shade on your school's property. This will help school administrators decide if the grounds are sun safe.

Take a survey of the grounds during a period when students are using them. Don't forget to be SunWise as you walk around the school!

Begin by drawing a map of the school grounds. Observe and mark on the map the most popular places where students congregate and play. These Play Areas can include sports fields, jungle gyms, blacktops, eating areas, and any other places where kids hang out.

Survey and mark the parts of the Play Areas that are covered in shade.

M easure the dimensions of the Play Areas, and write down your results. Then, measure the shade-covered portions of these areas. For circular-shaped areas, such as under a tree, measure the diameter of the shady spot. Record your results.

## Questions

1 What is the total area of the Play Areas on your school's grounds?

2 What is the total area of the portions of those Play Areas covered by shade?

3 What percentage of the Play Area on your school's grounds is sun safe?

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## SunWise Surveyor

## Estimated Time

One to two class periods

## Supplies

Clipboards (optional)
Measuring tapes, yardsticks, or metersticks

## Learning Objective

This activity will raise student awareness of daytime exposure to the sun. Students will focus on the amount of shade provided for their outdoor hours at school, and the importance of providing sun-safe areas on the property. Assess student comprehension by asking students to design a more SunWise playground (see the "You Are the Architect" activity).

## Directions

Tell your students that they are surveyors who have been assigned to determine the current availability of shade on your school's property in order to help school administrators decide if the grounds are sun safe.

Have the class take a survey of the grounds during a period of time when students are present, such as recess or lunchtime.

Have the students begin by drawing a scaled map of the school grounds, observing and marking on the map the most popular places where students congregate and play. These Play Areas can include sports fields, jungle gyms, blacktops, eating areas, and any other places where kids hang out.

Now have students survey and mark the parts of the Play Areas that are covered in shade.

Have the students measure the dimensions of the Play Areas, record their results, and measure the shadecovered portions of these areas. For circular-shaped areas, such as under a tree, students will measure the diameters and calculate the areas of the shady spot, and write down these results as well.

## Questions and Answers

1 What is the total area of the Play Areas on your school's grounds? Answers will vary. Students will determine this figure using al gebraic formulas to cal cul ate the area of each Play Area, then adding the sums together. $A=1 \cdot w$
2 What is the total area of the portions of those Play Areas covered by shade? Answers will vary. Students will determine this figure using al gebraic formulas to cal culate the area of each shade-covered area, then add the sums together.
3 What percentage of the Play Area on your school's grounds is sun safe? This answer will be determined by dividing the total area of shady spots by the total area of the Play Areas.

This activity was adapted from California Department of Health Services, School ShadeProtocol, Cancer Prevention and Nutrition Section.

## Additional Resources

CDC's Shade Planning for America's Schools www.epa.gov/sunwis\& dod cdc_shade_planning.pdf

