

# Scoping out shade

## TEACHERS' NOTES



### Suggested level

Years 7 and 8

### Victorian F–10 Curriculum links

Health and Physical Education

### Content descriptions

- Investigate and select strategies to promote health, safety and wellbeing (VHCPEP126).
- Develop skills to evaluate health information and express health concerns (VCHPEP129).
- Plan and use strategies and resources to enhance the health, safety and wellbeing of their communities (VCHPEP130).
- Plan and implement strategies for connecting to natural and built environments to promote health and wellbeing of their communities (VCHPEP131).

### Achievement standards

- Students investigate strategies and resources to manage changes and transitions and their impact on identities.
- They gather and analyse health information.
- They justify actions that promote their own and others' health, safety and wellbeing at home, at school and in the community.

### Focus area

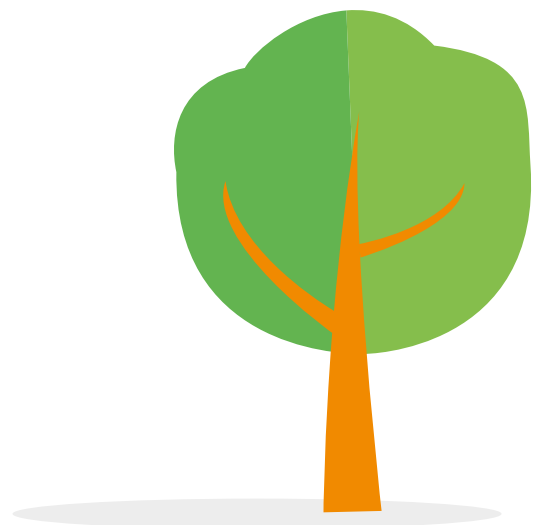
Safety (S)

### Learning intentions

- To analyse the shade availability in the school, and propose strategies to be more SunSmart in built and natural environments.

### Prepare yourself

- This activity should be completed sometime between mid-August to the end of April, when UV levels are 3 or higher. Check the [free SunSmart app](#) for the sun protection times for your location.
- Make note of the different shaded areas at your school. Think about areas where shade could be improved or increased.
- This activity could be modified to teach the components of mapping for humanities subjects.
- When developing their maps, students need to include the BOLTSS (Border, Orientation, Legend, Title, Scale, Source) components.
- Students can work in teams or small groups, analysing different areas within the school grounds and sharing their knowledge with the group upon return.
- Consider building upon this lesson with the *Making it official* lesson plan.



# Scoping out shade



## STUDENT WORKSHEET

### Information for reference

This table shows the percentage of UV that is reflected by different surfaces. The higher the number means the more UV is reflected by that surface. Outdoor areas should include materials that reflect less UV to minimise these effects.

Surface	How much UV it reflects (%)
Asphalt	6
Beach sand	
Wet	5
Dry	14
Concrete	
New	12
Old	9
Gravel	7
Lawn (grass)	2
Red brick	6
Sea surf	26
Snow	
New and dry	90
Old and dry	66
Tennis court	3
White paint	20
Wooden boards (deck)	6

Source: Mean numbers used, rounded to the nearest whole number, as found in *Turner J & Parisi AV (2018). Ultraviolet radiation albedo and reflectance in review: The influence to ultraviolet exposure in occupational settings.*

# Scoping out shade (cont)



## STUDENT WORKSHEET

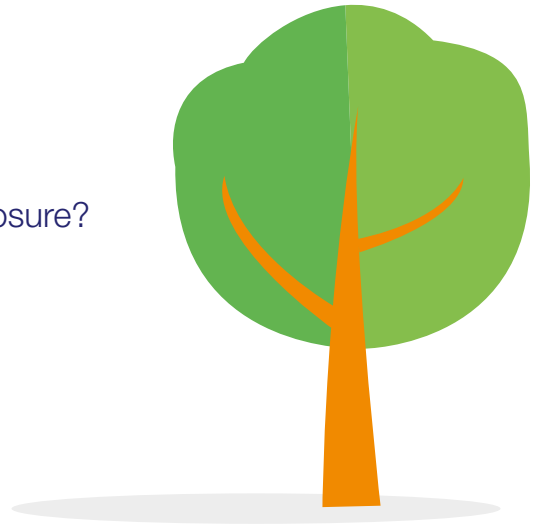
### Think about it!

When are you exposed to UV on a school day?

Are these periods of high UV (e.g. middle of the day) or low UV (early morning or late afternoon)?

How does your school protect you from UV overexposure?

How do you protect yourself from UV overexposure?



### The activity

1. Choose two different areas of your schoolyard. Draw a map of your two chosen areas.
  - a. Include one area with natural or built shade.
  - b. Include one area without natural or built shade.
  - c. Mark the type of surfaces for each of the areas, e.g. grass, concrete, asphalt.
2. Sit close to these two areas during recess and/or lunch and create a table to record usage of these two areas during peak times. Record how many people used the area, how long they use it for, and what type of activity they did there.
3. Develop a summary of usage that could be presented to your principal. In your summary, explain who uses each area, how long it is used for and what activities are done there.
4. Prepare an action plan including five key points to reduce UV radiation in each area. Make sure your recommendations consider enough shade to provide sun protection from mid-August to the end of April. Consider surface areas and UV reflection when developing your key points.
5. How could shaded areas be adapted to also allow for some UV exposure during winter?