

UV or temperature?



TEACHERS' NOTES

Suggested level

Years 7 and 8

Victorian F–10 Curriculum links

[Health and Physical Education](#)

Content descriptions

- Develop skills to evaluate health information and express health concerns (VCHPEP129).

Achievement standards

- They gather and analyse health information.
- They investigate strategies that enhance their own and others' health, safety and wellbeing.

Focus area

Safety (S)

Learning intention

- To collect, analyse and use health data to make recommendations for others to be SunSmart.

Prepare yourself

Everyone is exposed to ultraviolet (UV) radiation from the sun. The sun sends out different types of radiation – visible light that we see as sunlight, infrared radiation that we feel as heat, and UV radiation that we can't see or feel. People often confuse infrared and UV radiation. When the temperature is cool it means less infrared radiation, but not necessarily less UV radiation.

Exposure to UV radiation from the sun is the major cause of skin cancer. UV radiation from the sun is also one of the best natural sources of vitamin D. Vitamin D is necessary for healthy bones, muscles and overall health.

Levels of UV radiation from the sun change throughout the day and year, and depending on your location. The total amount of UV radiation present at a given location is affected by:

- closeness to the equator
- time of day
- time of year
- cloud cover
- altitude
- scattering
- reflection.

Class resources

- Copies of the *UV or temperature student worksheet* for students to work from.
- Students should also have access to a computer to view the [What is UV?](#) webpage on the SunSmart website



UV or temperature?



STUDENT WORKSHEET

Read through the SunSmart webpage *What is UV?* and answer the following questions.

1. Complete the table by identifying which of the following conditions are caused by UV and which are caused by infrared radiation (heat).

| | Infrared radiation (heat) | UV radiation |
|-----------------------------|---------------------------|--------------|
| Goosebumps on the skin | | |
| Skin flushing and reddening | | |
| Freckles | | |
| Sweating | | |
| Wrinkles | | |
| Sunburn | | |
| Shivering | | |
| Sagging of the skin | | |
| Cataracts | | |
| Sunspots | | |

UV or temperature? (cont)

STUDENT WORKSHEET

2. Using the results from the table above, explain the difference between UV radiation and infrared radiation (heat).
3. Why does SunSmart suggest that people check the UV forecast each day to determine if sun protection is required?
4. At what UV level is it advised that you should Slip, Slop, Slap, Seek and Slide?
5. At what UV level is it advised that sun protection is not recommended? What is the reason for this?
6. Are there any exceptions to this?
7. Describe a situation/environment where temperature could be low, but UV may be extreme.
8. Some parts of Australia can reach extreme UV levels on a daily basis. What are some strategies you could use to communicate this important message to overseas visitors?

Extension activity

Imagine you are looking in a magic mirror that can see into the future. Draw a full body picture of what you would look like if you didn't protect yourself from UV. Clearly label the parts of your body most affected.

