



# Beach armour textiles challenge

## Background

For over 30 years, Cancer Council Victoria's SunSmart program has been minimising the human cost of skin cancer. Accredited with preventing more than 100,000 skin cancers and saving thousands of lives, SunSmart is one of the most successful public health programs in Australia.

Ultraviolet radiation (UV) from the sun is both the major cause of skin cancer and the best natural source of vitamin D. The SunSmart program emphasises a balanced approach to UV, which minimises the risk of skin cancer with appropriate sun protection measures, while ensuring some sun exposure for vitamin D.

2 in 3 Australians will be diagnosed with skin cancer by the age of 70 and around 2,000 Australians die from skin cancer each year. In fact, Australia has one

of the highest rates of skin cancer in the world and in those aged 15–44 years, melanoma is the most common cancer, making up almost a quarter of all cancers for this age group. Australian adolescents have by far the highest incidence of melanoma in the world.

**Yet skin cancer is one of the most preventable cancers.**

SunSmart invites textiles students to take on a new challenge and join in the fight against skin cancer. Students are invited to create an innovative, SunSmart-inspired design that will appeal to young Australians. The product should consider SunSmart's sun protection messages and aim to offer the wearer protection from the sun's UV.

## The challenge

Students are asked to increase young people's awareness of the dangers of overexposure to the sun, by designing a fashionable, sun protection product. **The 'beach armour' design should be an innovative textiles product that could replace the traditional beach towel**, providing sun protection for individuals while at the beach.

- The product is not to be solely a garment, but rather a multi-purpose beach towel alternative (e.g. beach towel with hood, towel that converts into a bag/tent/sarong/wrap, etc.).
- The product should be unisex and aimed at young adults between the ages of 13 and 25.

- The product should be appropriate in meeting SunSmart requirements (see below).
- The product must convey a SunSmart message.

**Note:** students are not required to produce their product, but submit the following in A3 size:

- Mood board – initial submission in the form of a digital photograph.
- Visualisations.
- Final product design and annotations.
- Technical/working drawings.
- Creative statement which considers functionality.



## Factors to consider

SunSmart recommends Australians use a combination of sun protection measures during the sun protection times. Completed items will need to consider the following SunSmart recommendations:



Slip on sun protective clothing that covers as much skin as possible, protecting the wearer from UV radiation. Examples include collared shirts, knee length (minimum) trousers/skirts/sarongs and elbow length (minimum) sleeve tops. Scoop necks, v-necks or any other necklines below the collarbone are not recommended.

Fabrics should carry a UPF (ultraviolet protection factor) rating and/or be made of a dense weave/knit fabric. Clothing design should be mindful of keeping the wearer cool and wicking away sweat, therefore loose-fitting clothes may be a better consideration given they are more comfortable to wear on hot days. Similarly, darker colours generally offer more sun protection than lighter colours.



Slip on SPF 30 (or higher) broad spectrum, water resistant sunscreen. Apply 20 minutes before going outdoors and reapply every two hours.



Slap on a broad-brimmed hat that protects the face, head, neck and ears and is made of a material that does not allow UV radiation to penetrate through (i.e. a dense weave fabric). SunSmart recommends broad-brimmed hats (brim width minimum 7.5cm) to provide the best protection from UV radiation. Baseball, peaked caps and sun visors do not meet SunSmart requirements as they leave the ears, cheeks and the back of the neck exposed, which are common sites for skin cancer.



Seek shade under a tree, shade structure, umbrella or parasol. Umbrellas and parasols should be constructed of fabric that is at least UPF 50+ and shade the whole body.



Slide on wrap-around sunglasses which meet Australian Standards.

**Clothing should always be combined with SPF 30 (or higher) sunscreen, a hat, shade and sunglasses.**

## Defining the requirements for submission

- **Create a mood board (A3 size):** A mood board is a collage that is a collection of images and materials displayed on a board that express a 'mood' or theme. It forms the basis of the product inspiration to begin designing. Mood boards should initially be submitted in the form of a digital photograph.
- **Visualisations and final design option:** Students are to sketch a selection of thumbnail sketches before deciding on a final design. Designs can be rough and do not need to be drawn on a figure. Students need to annotate the following on their final design:
  - Design features
  - Functional aspects
  - Aesthetic aspects
  - How the design relates to the chosen SunSmart message
  - How the design incorporates SunSmart requirements
  - Possible materials and innovations
- **Working drawings:** Sometimes called flat or technical drawings are drawn outlines of the product. A front and back view of the product is shown. They are drawn to scale and show all design lines and stitching detail. They are not usually coloured or show any pattern or print detail, although they may include a fabric swatch next to them.
- **SunSmart messages:** Along with the requirements detailed above, students may wish to incorporate SunSmart icons and messages including Sid the Seagull, SunSmart's blue and yellow colours or the 'Skin cells in trauma' tag line. Visit [www.sunsmart.com.au](http://www.sunsmart.com.au) for further ideas.
- **Creative statement:** This is an opportunity to demonstrate an understanding of SunSmart requirements, materials and design. Responses should be as detailed as possible and refer back to the design brief. For this component, students need to provide responses to the following:
  - Name of the design (Mood board title)
  - SunSmart message
  - Description of the design concept (Describe in detail how you came about your 'Beach Armour' and how it relates to being SunSmart. What SunSmart message is being incorporated and/or conveyed through your product?)
  - Description of the product design produced (Describe in detail the product you have produced – discuss all the design features as well as the functional and aesthetic aspects of the product. Explain in detail how your design answers the specifications set out in the brief.)
  - Outline of the design process, including any software used (Describe in detail how you worked through the design process – investigate, research and design. Which stages did you work through and to what detail?)
  - Justify the proposed materials and innovations identified for the design (Demonstrate your understanding of materials – refer to properties of materials and give reasons as to how your chosen materials and innovations relate back to the design brief).

## Resources to assist

- SunSmart's YouTube videos – [www.youtube.com/user/SunSmartAus](http://www.youtube.com/user/SunSmartAus)
- Cancer Council Australia's [Real Stories](#) secondary school web hub
- SunSmart, Cancer Council Victoria's [secondary school curriculum resources](#)
- SunSmart, Cancer Council Victoria clothing information sheet [www.sunsmart.com.au/uv-sun-protection/slip-on-clothing](http://www.sunsmart.com.au/uv-sun-protection/slip-on-clothing)
- SunSmart, Cancer Council Victoria hat information sheet [www.sunsmart.com.au/uv-sun-protection/slap-on-a-hat](http://www.sunsmart.com.au/uv-sun-protection/slap-on-a-hat)
- Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) link to UPF testing of fabrics [www.arpansa.gov.au/Services/upf/index.cfm](http://www.arpansa.gov.au/Services/upf/index.cfm)
- [Fashion for the sun](#) resource produced by the Home Economics Institute of Australia (HEIA)