



## Sun-savvy fabrics— An analytical response

### Task

#### Step 1

Read Fact file H: At a glance—Fabric characteristics and UVR protection

#### Step 2

Complete either:

- Student response 15: Fabric characteristics and UVR protection—A text analysis and/or
- Student response 16: Fabric characteristics and UVR protection—A practical investigation.

#### Step 3

Based on the above, compose a 250–400-word response to the following topic:

*Explain and evaluate the influence of fibre, weave and colour of fabric when designing sun-protective clothing. Use the Response Guide on page 2 to guide your response.*

### Assessment guide

This assessment guide is based on the Australian Curriculum Years 9 and 10 Design and Technologies achievement standard.

Criterion	Task-specific criterion	Descriptors of quality— The student's work shows the following characteristics:				
		A	B	C	D	E
Knowledge and understanding (Design and Technologies, Technologies contexts)	Evaluation of features of technologies (fabric characteristics) with reference to sun safety	Insightful evaluation	Informed evaluation	Sound evaluation	Partial evaluation (mainly descriptive)	Statements made

<b>NOTES</b>	<b>Informed:</b> Having relevant knowledge	<b>Partial:</b> Attempted, incomplete
	<b>Insightful:</b> Showing good judgements to make thoughtful choices	<b>Sound:</b> Makes sense, reasonable, works, practicable

Teacher note:

1. In accordance with the Australian Curriculum Design and Technologies for Years 9 and 10 students, knowledge and understanding is developed and demonstrated when students investigate and evaluate the relevant topic. Hence the criterion for this investigative piece of work is 'Knowledge and understanding' [of fabric characteristics for sun-savvy clothing].

### Response Guide

Use the prompts below to guide your response:

<p><b>Step 1</b> TOPIC SENTENCE</p>	<p>Introduce the topic, for example: 'Factors that influence the choice of fabric for sun-protective clothing include ...'</p>
<p><b>Step 2</b> EXPANSION</p>	<p>Outline briefly some relevant information about the importance of clothing for sun protection, for example:</p> <ul style="list-style-type: none"> <li>• 'Protecting the skin from the sun's UV rays is important because ...'</li> <li>• 'Strategies to protect the skin from UV rays include ...'</li> </ul>
<p><b>Step 3</b> EVIDENCE</p>	<p>Provide a range of clear, detailed examples to prove the extent to which the fibre, construction method and colour of the fabric influence the degree of protection it provides from the sun's UV rays.</p> <p><b>Fibres</b></p> <ul style="list-style-type: none"> <li>• Explain and evaluate the influence of fibre on sun protection, for example: 'The fibre that provides the best UV protection is ... because ...' 'The fibre ...'</li> <li>• Conclude with the extent to which the type of fibre should influence choice of fabric when designing sun-smart clothing. Justify your response.</li> </ul> <p><b>Weaves/knit</b></p> <ul style="list-style-type: none"> <li>• Explain and evaluate the influence of fabric construction (weave/knit) on sun protection, for example: 'A _____ weave provides ...'</li> <li>• Conclude with the extent to which weave/knit should influence choice of fabric when designing sun-smart clothing. Justify your response.</li> </ul> <p><b>Colour</b></p> <ul style="list-style-type: none"> <li>• Explain and evaluate the influence of fabric colour on sun protection, for example: 'Compared to light fabrics, dark fabrics ...'</li> <li>• Conclude with the extent to which colour should influence choice of fabric when designing sun-smart clothing. Justify your response.</li> </ul>
<p><b>Step 4</b> CONCLUSION</p>	<p>Make an overall statement about the influence of fibre, weave and colour when choosing fabrics for sun-protective clothing, for example:</p> <ul style="list-style-type: none"> <li>• 'It is clear that...'</li> <li>• 'The most important fabric characteristics that influence UV protection are ...'</li> </ul>
<p><b>Step 5</b> RECOMMENDATIONS</p>	<ul style="list-style-type: none"> <li>• Recommend actions when choosing fabrics for sun savvy clothing.</li> <li>• Write criteria for success when choosing fabrics for sun-smart clothing. Show the criteria in order of importance, with number 1 being the most important.</li> </ul>

### Language

- Use formal language throughout.
- Write in the third person.
- Use correct terminology, for example, the names of fibres, loosely woven, closely woven.
- Compose concise arguments to justify your answer. Avoid lengthy and descriptive writing.