Natural hazards and disasters

Introduction
Humans have always tried to control the environment. With the aid of technology people can move mountains, clear vast forests, change arid lands into fertile fields and alter the flow of rivers.

There are, however, elements of our surroundings that remain beyond our control. From time to time, nature reminds us of its power. Extreme events within natural environments can devastate whole communities, disrupt communications and cause economic hardship.

We cannot control these forces, but we can study the processes that cause them. This allows us to better predict extreme events and enables us to develop ways of better coping with their effects.

Natural disasters
As we go about our daily lives it is easy to forget that our natural environment contains threats to human life and property. These extreme and unusual events are called natural hazards. They include major disturbances in the atmosphere and on the earth’s surface. Australia’s most common natural hazards include storms, cyclones, floods, droughts and bushfires. When natural hazards affect people they are termed ‘natural disasters’.

Defining bushfires
‘Bushfire’ is an Australian word used to describe any fire burning out of control. In other countries the term ‘wildfire’ is used to describe such an event.

In Australia, bushfires occur as forest fires (bushfires with the trees, undergrowth and litter on the forest floor as the main fuel) and grass fires (bushfires with grass as the main fuel). Large areas of Australia suffer from the threat of bushfires, especially in the eucalypt forest and woodlands of the south-east and south-west corners of the continent.

Disasters, such as those listed in Table 1, have placed bushfires high on our country’s list of natural hazards.

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Table 1: Australia’s five deadliest bushfires

<table>
<thead>
<tr>
<th>Bushfire event</th>
<th>Loss of life and property</th>
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<tbody>
<tr>
<td>Gippsland fires and Black Sunday February–March 1926</td>
<td>60 people killed</td>
</tr>
<tr>
<td>Black Friday (Victoria) January 1939</td>
<td>71 people were killed and 650 homes destroyed</td>
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<tr>
<td>Black Tuesday (Tasmanian) 1967</td>
<td>62 lives lost and over 1,300 homes destroyed</td>
</tr>
<tr>
<td>Ash Wednesday (Victoria and South Australia) February 1983</td>
<td>75 people and 2,500 homes were destroyed</td>
</tr>
<tr>
<td>Black Saturday (Victoria) February 2009</td>
<td>173 killed and more than 2000 homes destroyed.</td>
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Figure 1: Bushfire risk zones in Australia
Figure 2: Bushfire seasons in Australia

Activities:

1. Explain what the terms ‘natural hazard’ and ‘natural disaster’ mean.

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2. List the types of natural hazards that can affect people.

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3. What is another name for a ‘bushfire’? _____________________________

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4. Explain the difference between a forest fire and a grass fire.

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5. Study Figure 1. With the aid of an atlas describe the distribution of bushfires in Australia.

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6. Study Figure 2. With the aid of an atlas describe how the bushfire season changes as you travel across the continent from south to north.

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7. Select one of the bushfire disasters listed in Table 1. Undertake research using the internet. Outline the circumstances under which the selected bushfire disaster took place and describe the extent of the damaged caused. Present your findings as a written report.