



Bushfire science 1: Fiery failures

Components

	NAME	DESCRIPTION	AUDIENCE
	<i>Fiery failures</i> teacher guide	This guide explains how to introduce students to historical relationships between humans and fire. They question ways humans have sought to manage these situations.	teachers
	<i>Horrible environmental histories</i> video	A video shows four examples of environmental damage resulting from incautious or ill-informed human activity involving combustion: Greenland deforestation; acid rain in Europe; noxious products of lignite combustion in the former USSR; and fire suppression policies in 20th century USA.	students

Purpose

To **Engage** students in learning about relationships between fire, human activity and environment.

Outcomes

Students:

- understand combustion products affect the environment;
- understand many environmental disasters are the result of human actions;
- describe causes of past environmental disasters that are related to human actions; and
- discuss possible solutions to human-generated environmental problems.

Activity summary

ACTIVITY	POSSIBLE STRATEGY
Students watch the video, <i>Horrible environmental histories</i> .	whole class
Class discussion or small group activities about issues presented in the video.	whole class/small groups/individual

Teacher notes

Class discussion following the video may include the following questions:

- What issues surrounding the human use of fire were raised?
- Does the use of fire always have a negative impact on the environment?
- What measures could be taken to reduce or repair harmful environmental effects from fire?
- Do you know of other examples of harmful effects from human use of fire?

Alternatively students may work in groups or individually to produce a PMI chart. They create a table of Positives, Minuses and Interesting things they find out about human use of fire.

Technical requirements

The teachers guide requires Adobe Reader (version 5 or later), which is a free download from www.adobe.com. A modern browser (eg Internet Explorer 8 or later, Google Chrome, Safari 4.0+, Opera or Firefox) is required to view the video

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Associated SPICE resources

Bushfire science 1: Fiery failures may be used in conjunction with related SPICE resources to teach aspects of biodiversity and oxidation.

DESCRIPTION	LEARNING PURPOSE
<i>Bushfires (overview)</i>	
<i>Bushfires 1: Fiery failures</i> A lighthearted look at four environmental catastrophes through history brings out common connections with fire and combustion.	Engage
<i>Bushfires 2: Exploring ecosystems</i> Students use sampling techniques to investigate a local ecosystem, and an interactive learning object to explore biodiversity in contrasting Western Australian ecosystems.	Explore
<i>Bushfires 3: Oxidation</i> Students investigate combustion and other oxidation reactions.	Explore
<i>Bushfires 4: Fire in Western Australia</i> Students use an interactive learning object to examine effects of fire on three Western Australian ecosystems.	Explain
<i>Bushfires 5: Oxidation and combustion</i> Students use an interactive learning object to visualise oxidation reactions at a molecular level.	Explain
<i>Bushfires 6: Fire stories</i> Students read three interactive stories about human use of fire and its consequences in different parts of Western Australia.	Elaborate