

# Investigating asbestos

## Background

Asbestos was used widely in a number of industries between 1945 and 1980. It was also mined in Australia and exported. In the 1970s it became widely known that exposure to asbestos can cause major health effects. The health risks arise from breathing asbestos into the lungs.

Asbestosis, mesothelioma, lung cancer and pleural disease are the main asbestos related diseases which often develop many years after exposure.

Hundreds of people are suing mining companies and other companies that used asbestos.

### Use of Asbestos

Due to its strength, durability and resistance to fire and water, asbestos was used in a wide range of building products and materials up until the mid-1980s. Products that may contain asbestos include vinyl floor tiles, cement roof sheeting and wall lining, lagging and jointing material and fire blankets.

Asbestos was also mined in Australia and exported.

### Health risks

Asbestos can cause health problems when fibres become airborne and are inhaled. Once inside the lungs, most asbestos fibres are removed by the body's natural defences however some fibres can become trapped in the lungs. In some individuals, this can result in serious lung diseases such as asbestosis, lung cancer or mesothelioma that may develop years later (typically 10 to 40 years later).

Asbestos poses a health risk only when asbestos fibres are released into the air that people breathe. Asbestos is not considered a significant health risk as long as it is in good condition and remains undamaged and undisturbed.

How exposure to asbestos affects a person will depend on a number of things, such as

- the concentration of fibres in the air
- how long the exposure lasted
- how often you were exposed
- the amount of time since the initial exposure.

Not everyone exposed to asbestos fibres will contract an asbestos-related disease. In fact, the chances are low with a single exposure. The risk increases with the number of exposures and with higher concentrations of fibres. However, there have been instances when people with minimal exposure to asbestos fibres have developed a disease thought to be caused by asbestos.

In workplaces, the risks caused by asbestos are most likely to arise from exposure to airborne fibres during asbestos removal or while undertaking renovation or maintenance work.

If done correctly, building repairs, maintenance and asbestos removal do not create a significant risk to people carrying out the work or to others in the vicinity.



## Overview of the unit

There is one activity in this unit:

- Activity 1: Investigating asbestos.

In this unit, students look at how people have been affected by asbestos in Australia, how asbestos has been used and the continued risks despite the ban on all asbestos products.

## Purpose of the unit

- To develop an understanding of choices that exist if confronted with unsafe work situations
- To develop problem solving skills
- To develop teamwork skills
- To identify options and their effects.

## Resource requirements

<b>Activity sheets</b>	<ul style="list-style-type: none"><li>• Activity sheet 1: Personal asbestos story</li><li>• Activity sheet 2: History of asbestos in Australia</li><li>• Activity sheet 3: Asbestos today</li></ul>
<b>Other material or resources</b>	<p><b>Australian Asbestos Network website</b> <a href="http://www.australianasbestosnetwork.org.au/">http://www.australianasbestosnetwork.org.au/</a></p> <p><b>ABC Health and Wellbeing site</b> <a href="http://www.abc.net.au/health/library/stories/2004/04/29/1828906.htm">http://www.abc.net.au/health/library/stories/2004/04/29/1828906.htm</a></p> <p><b>Worksafe Victoria information on asbestos</b> <a href="http://www.worksafe.vic.gov.au/wps/wcm/connect/wsinternet/WorkSafe/Home/Safety+and+Prevention/Health+And+Safety+Topics/Asbestos/">http://www.worksafe.vic.gov.au/wps/wcm/connect/wsinternet/WorkSafe/Home/Safety+and+Prevention/Health+And+Safety+Topics/Asbestos/</a></p> <p><b>Wikipedia</b> <a href="http://en.wikipedia.org/wiki/Asbestos">http://en.wikipedia.org/wiki/Asbestos</a></p> <p><b>Channel 9 report on asbestos found during renovations at Melbourne University.</b> <a href="http://video.au.msn.com/watch/video/asbestos-scare-at-melbourne-university/x0mz3g">http://video.au.msn.com/watch/video/asbestos-scare-at-melbourne-university/x0mz3g</a></p>
<b>Facilities and equipment</b>	Access to the internet

## Assessment & curriculum alignment

The activities in this unit are designed to **support** student learning but may also be used for assessment purposes. The activities support the learning outcomes listed in the table below but **may not cover all the elements**. If the activities are to be used as assessment tasks, teachers should **check the relevant curriculum document**, e.g. the VCAL Curriculum Planning Guides, to ensure all the elements are covered and the activity is consistent with the unit purpose statement.

While documentation from undertaking the activities in this unit can be collected to build a portfolio of evidence to be used for the assessment of relevant learning outcomes, students will need to

demonstrate competence of a learning outcome on more than one occasion and, wherever possible, in different contexts, to ensure the assessment is consistent, fair and equitable.

	<b>VCAL Foundation</b>	<b>VCAL Intermediate</b>	<b>VCAL Senior</b>	<b>VELS</b>	<b>Primary e-phase</b>
Activity 1: Investigating asbestos	R&W LO2, 3, 6, 7 OC LO1, 2, 3	R&W LO2, 3, 6, 7 OC LO 1, 2, 3	R&W LO2, 3, 6, 7 OC LO 1, 2, 3	Health and Physical Education: <ul style="list-style-type: none"> <li>• Health knowledge &amp; promotion</li> </ul> English: <ul style="list-style-type: none"> <li>• Reading</li> <li>• Writing</li> </ul> Humanities – History: <ul style="list-style-type: none"> <li>• Historical knowledge &amp; understanding</li> </ul>	Engage Explore Explain

## Activity 1: Investigating asbestos

In this activity, students will look at a personal story of someone that has been affected by asbestos, investigate the history of asbestos in Australia and look at current risks of being exposed to asbestos.

### What to do

Facilitate a class discussion on what students know about asbestos. Possible questions to guide the discussion could include:

- Have students seen items about asbestos covered in the media?
- Have students' families ever worked around asbestos?
- Have students had issues with asbestos when renovating their homes/working on a site, etc?
- Where does asbestos come from?
- Where was it used?

Ask students to complete *Activity sheet 1: Personal asbestos story*. Students will need to choose one of the people featured on the Australian Asbestos Network website, <http://www.australianasbestosnetwork.org.au/>, and answer questions about their exposure to asbestos and how their health was affected.

When students have completed the activity sheet, encourage them to share the different stories of people that have been exposed to asbestos.

Ask students to complete *Activity sheet 2: History of asbestos* and *Activity sheet 3: Asbestos today*. Encourage students to discuss what they have found out and research any other aspects of asbestos that they are curious about, using the websites provided.

### Student roles and responsibilities in relation to the activity

Contribute to class discussions.

Listen to the views of others.

Provide written responses to questions.

### Level of teacher support

Facilitate discussion.

Provide support with internet research.

Provide support appropriate to the level of VCAL the students are working at.

### Assessment

This is a learning activity. This activity could be used to support the learning outcomes as indicated in the table on page 2.

If the activity is to be used as an assessment task, teachers should check the relevant curriculum document, e.g. the VCAL Curriculum Planning Guides, to ensure all the elements are covered and the activity is consistent with the unit purpose statement.

Students working at a Senior level would be expected to work more autonomously on the activities.

## Personal asbestos story

Listen to a personal story on the Asbestos Stories section of the Australian Asbestos Network Website.

Go to [www.australianasbestosnetwork.org.au](http://www.australianasbestosnetwork.org.au).

Click on Asbestos Stories and listen to some of the stories featured.

Answer the questions below:

**How was the person exposed to asbestos?**

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**What illness did the person develop and what are the symptoms?**

Illness:

Symptoms:

## What other illnesses can people who have been exposed to asbestos develop?

### These websites will help you out

ABC Health and Wellbeing site

<http://www.abc.net.au/health/library/stories/2004/04/29/1828906.htm>

Worksafe Victoria information on asbestos

<http://www.worksafe.vic.gov.au/wps/wcm/connect/wsinternet/WorkSafe/Home/Safety+and+Prevention/Health+And+Safety+Topics/Asbestos/>

Wikipedia

<http://en.wikipedia.org/wiki/Asbestos>

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## History of asbestos in Australia

Answer the questions about how asbestos was used in Australia.

### These websites will help you out

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Australian Asbestos Network

<http://www.australianasbestosnetwork.org.au>

Worksafe Victoria information on asbestos

<http://www.worksafe.vic.gov.au/wps/wcm/connect/wsinternet/WorkSafe/Home/Safety+and+Prevention/Health+And+Safety+Topics/Asbestos/>

Wikipedia

<http://en.wikipedia.org/wiki/Asbestos>

**Where was asbestos mined in Australia?**

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**What was asbestos used for?**

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**What properties does asbestos have that makes it so useful?**

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**When was asbestos banned in Australia?**

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## Asbestos today

Watch the video reporting on asbestos found during renovations at Melbourne University.

<http://video.au.msn.com/watch/video/asbestos-scare-at-melbourne-university/xe0mz3g>

Answer the following questions:

**Where was the asbestos found?**

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**Who was at risk of being exposed to the asbestos?**

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**What jobs do you think would have the highest risk of being exposed to asbestos? Why?**

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What should you do if you find asbestos when renovating a home or working on a building site?

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**Websites**

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<http://www.australianasbestosnetwork.org.au>

**Worksafe Victoria information on asbestos**

<http://www.worksafe.vic.gov.au/wps/wcm/connect/wsinternet/WorkSafe/Home/Safety+and+Prevention/Health+And+Safety+Topics/Asbestos/>

**Wikipedia**

<http://en.wikipedia.org/wiki/Asbestos>