

6.16 Water pollution

Topic: Conservation

Subtopic: Water conservation

Activity type/skill: Word meanings

Literacy focus: Reading

Genre: Information reports

Objective

- Develop strategies for guessing the meaning of unfamiliar words.

What you need

- Student worksheet (see next page)
- [Audio track 6.16](#)

What to do

1. Look at the first two pages of the student worksheet and have students use the main heading, subheadings and illustrations to predict what this text is about. Prompt for more than simply water pollution. They should come up with causes.
2. Play track 6.16 (Track 2 for this topic) and listen to the text and follow the words. Explain that the words that are underlined are words that they may not know. Have them underline any others they do not know as they listen and read.
3. Brainstorm ideas for dealing with unknown words and prompt them to come up with a list such as:
 - checking to see if the word is in the glossary
 - using clues like title, headings, illustrations and labels
 - asking themselves if they recognise any part of the word
 - asking themselves if they have come across the word in any other contexts
 - looking to see if the word is repeated in the text
 - looking at the context in which the word occurs
 - looking at the collocation of the word – the words it is with
 - using their existing knowledge of the context and collocation to guess
 - checking their guess in a dictionary.
4. Talk about the use of dictionaries. Explain that, even using a dictionary, clues are still needed because more than one meaning may be given. They should always try to work out the meaning for themselves first.
5. After they have listened, look at the underlined words and any that the students have added and work out what they mean. This activity should generate a lot of discussion. Encourage students who have worked out meanings to explain them to the others. They should agree on the correct meaning for this context.
6. Have them write the correct word from the text on the lines beside the meanings on the third page of the student worksheet. Add any other words they underlined with a definition.



Water pollution



What causes water pollution?

Water becomes polluted when:

- substances like soil, mud, clay or silt are added to it
- rubbish and chemicals such as oil, fertilisers, pesticides and factory wastes are added to it
- sewage that has not been treated is added to it.



Silt pollution

When it rains heavily, soil particles called silt are washed off bare land into streams. This makes the water of streams and rivers brown and cloudy.

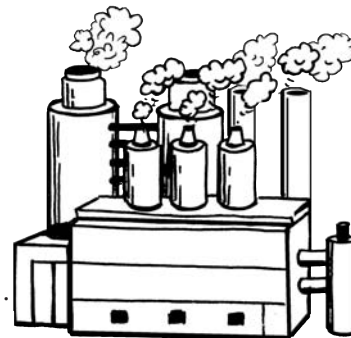
We can prevent silt pollution by planting trees and crops to cover bare land. This is important on sloping land near rivers and on hillsides.

Pollution from industries and farms

Some factories dump waste products, such as poisonous chemicals, metals, oils and detergents, directly into streams and rivers. Fish, plants and insects can no longer survive in the polluted water. The polluted water in rivers flows into the sea and takes the pollutants with it.

Fertilisers and pesticides from farms drain off the land and sink through the soil into the groundwater. The polluted groundwater eventually reaches rivers and flows to the sea.

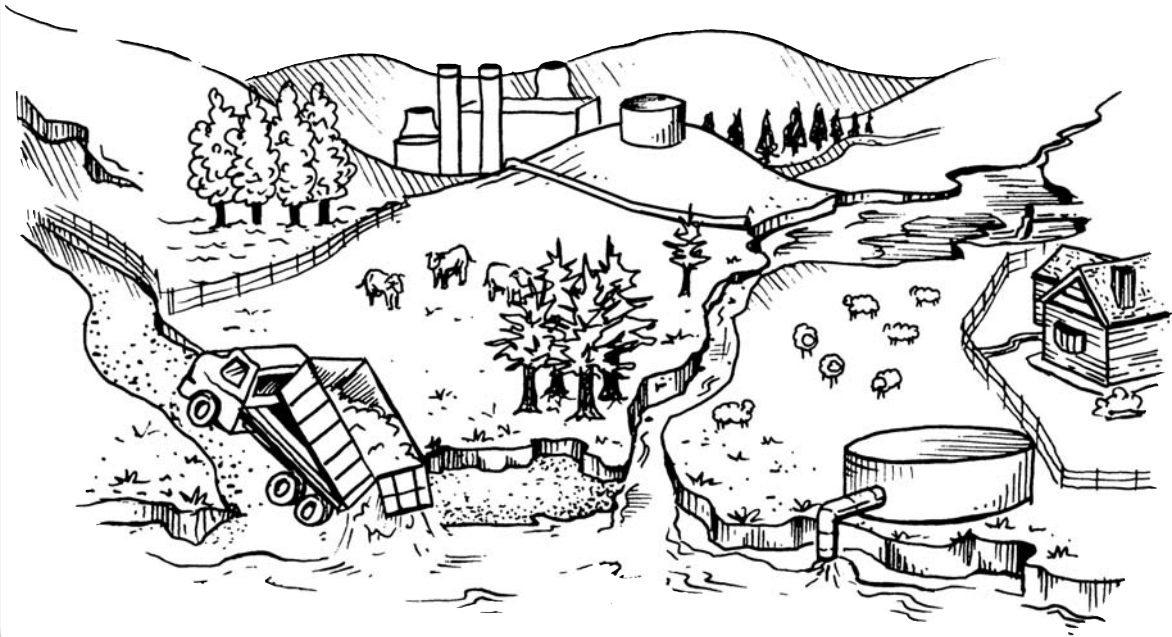
Pollution of the oceans threatens many forms of marine life. Oil spills from ships can devastate many creatures and their habitats. Oil coats birds' feathers, clogs fishes' gills and cannot be easily cleaned up.



Pollution from sewage

Sewage that is not cleaned or treated properly is sometimes discharged straight into waterways and oceans. Sewage is waste water from homes and farms. It contains human and animal waste which often carries diseases. Sewage must be treated before it returns to the water cycle. Towns and cities in New Zealand collect sewage from houses through sewer pipes and treat it. This treatment makes the used water clean enough to be put back into rivers or the sea without causing pollution.

Silt, rubbish, chemicals and untreated sewage all pollute water and make it unsafe for plants and animals that depend on water for their survival.



Glossary

sewage (n) : used water from homes and farms that carries human and animal waste.

silt (n): very small particles of soil.

treat (v): to change something using a special process. Waste water must be treated to make it clean and safe. **treatment (n)**

groundwater (n): water that has soaked into the ground and is stored there.

Activity sixteen

- _____ something found or produced in the sea
- _____ covers with a thin layer
- _____ throw out
- _____ causing animals or plants to die or become ill
- _____ illnesses caused by bacteria, not accidents
- _____ move slowly downwards
- _____ not covered
- _____ flows out over the edge of something by accident
- _____ living things that can move about
- _____ at an angle
- _____ destroy or damage very badly
- _____ finally
- _____ flow slowly away
- _____ put or sent out
- _____ is a danger