

# Water Pollution

## Indicator

- Reads and understands informational text about water pollution.

## Outcome Links

### English

National	NSW	Vic.	WA	Qld	SA
3.5	RS2.5	3.5(b)	R3.1	*	2.3

### Society and Environment

2.12	SSS2.7	SOSE0201	R2.2 R3.2	SRP2.1	2.6
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## Teachers Notes

- Air pollution is the pollution of the Earth's atmosphere. It is caused mainly by emissions from machinery and factories in the form of smoke. The release of chlorofluorocarbons (CFCs) from aerosol sprays, refrigerators and airconditioners also causes air pollution. Motor vehicle exhaust fumes are another huge contributing factor. This pollution is often called 'smog'.
- Soil pollution is where waste products are stored or released on land, either quickly or over a long time. They mix with the soil, reducing its fertility and creating a build-up of dangerous products. Materials released into the soil can also find their way into underground water supplies and pollute them.
- Water pollution is the pollution of the Earth's oceans, seas and other waterways. It is caused when people release waste materials from factories or ships. These become mixed with the water and cause great damage to the plants and animals living there. This can also make the water unfit for drinking.
- Demonstrate the concept of water pollution by dropping vegetable oil onto a shallow tray filled with water. The oil will float on the top of the water instead of mixing with the water or dissolving.

## Additional Activities

- Use the school playground to investigate land pollution. For example, collect and count the pieces of rubbish dropped in the playground.
- Find articles in newspapers or magazines about pollution to display for students to read and discuss.

\* Refer to curriculum documents on <http://www.qscq.qld.edu.au>

# Water Pollution

*Water pollution has increased to the point where it is now thought of as one of the world's greatest problems. This applies equally to saltwater and freshwater environments.*

## **What is water 'pollution'?**

*Basically, pollution is anything which make water unclean or dirty. We generally think of pollution as being caused by humans.*

## **How does water become polluted?**

*One of the main sources of pollution is industry. Industry uses vast quantities of water, which is then put back into the environment. Sadly, this water is all too often no longer clean. It may contain chemicals, detergents or other toxic (poisonous) materials. In large enough quantities, these pollutants kill water plants and animals and make water unfit for human use.*

*Oil and rubber pollution from roads is washed into drains when it rains, and can enter the water system with drastic effects.*

*Fertilisers, especially from farms and suburban gardens, can be washed into the underground water system, and then into rivers and even the sea. Fertilisers cause nasty-smelling algae to grow. Chemical pest poisons (pesticides) can also wind up in our water supply.*

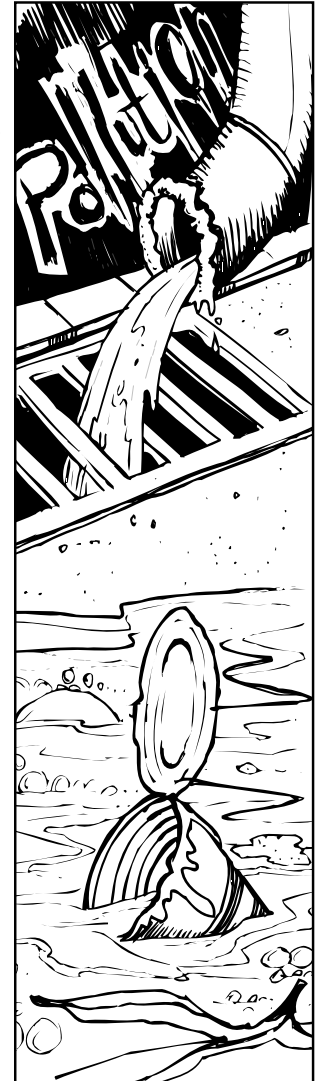
*Oil spills from supertankers have become a major concern lately, as the tankers get larger, carrying millions of litres of oil. In some parts of the world, raw untreated sewage is still pumped into waterways.*

## **What can we do?**

*We have to become serious about pollution—and we are starting to do so. Industry is now better regulated, and water is treated much better before being released. Sewerage plants also treat and recycle water. Environmentally-friendly pesticides, which break down harmlessly without polluting the water supply, are now being sold.*

*Even around our homes, we need to be careful. For example, no chemicals or paints or household cleaners should be emptied down the sink or drain. Dangerous chemicals, such as solid chlorine for swimming pools, shouldn't be buried, because they will wash into the water supply. Biodegradable soaps and detergents should be used—and very sparingly even then.*

**We can make a difference.**



# Water Pollution

## Indicator

- Analyses and extracts relevant information about water pollution.

## Outcome Links

### English

National	NSW	Vic.	WA	Qld	SA
3.5, 3.9	RS2.5	3.5(b)	R3.1	*	2.3
	WS2.9	3.9	W3.1		2.4

### Society and Environment

2.12	SSS2.7	SOSE0201	R2.2 R3.2	SRP2.1	2.6
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## Answers

- Water pollution is anything that makes water unclean or dirty.
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		Cause of pollution				
		fertilisers	oil	rubber	chemicals	detergents
P o l l u t i o n  S o u r c e	industry	X	X	X	✓	✓
	farms	✓	X	X	✓	X
	gardens	✓	X	X	✓	X
	roads	X	✓	✓	X	X
	tankers	X	✓	X	X	X

- fact
  - opinion
  - fact
  - opinion
- toxic – a poisonous substance
  - drastic – harsh, extreme or violent
  - sewage – the waste matter which passes through drains and sewers
  - sewerage – the removal of waste water and waste matter using sewers
  - biodegradable – able to be broken down by the action of bacteria etc. so it will not harm the environment.
- Teacher check
- Teacher check

\* Refer to curriculum documents on <http://www.qscq.qld.edu.au>

# Water Pollution

Answer these questions.

1 What is water pollution?

\_\_\_\_\_

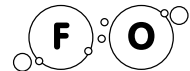
2 Complete the chart using a ✓ or a X in the boxes.



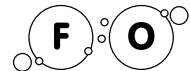
		Cause of pollution				
		fertilisers	oil	rubber	chemicals	detergents
P o l l u t i o n  s o u r c e	industry					
	farms					
	gardens					
	roads					
	tankers					

3 Fact or opinion?

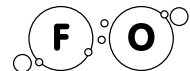
(a) Industry is a main cause of pollution.



(b) Supertankers should not be built.



(c) No household cleaners should be emptied down the drain.



(d) Dangerous chemicals should never be used.



4 Write a dictionary meaning for these words.

(a) toxic \_\_\_\_\_

(b) drastic \_\_\_\_\_

(c) sewage \_\_\_\_\_

(d) sewerage \_\_\_\_\_

(e) biodegradable \_\_\_\_\_

5 List three ways pollution can be reduced.

(i) \_\_\_\_\_

(ii) \_\_\_\_\_

(iii) \_\_\_\_\_

6 As a class, discuss how water pollution could be reduced at school.