



Junior Cycle Geography Lesson Plan

Water Pollution

Curriculum Link

SECTION C: PATTERNS IN ECONOMIC ACTIVITY. Unit C1(i) Primary economic activities: the earth as a resource. Water is a basic natural resource, needed to maintain human and animal life and to grow food. It is an example of a renewable resource.

Key idea

The pollution of fresh water sources is an issue of grave concern.

Learning outcomes

Students should be able to:

- Understand how water is polluted in the local area.
- Understand how polluted water can affect people's health.
- Suggest solutions to reduce the causes of water pollution.

Eco Eye Clips – Clean water

Protecting our drinking water

Water is a precious resource and quality is very important, particularly when it comes to drinking water. Sewage, agriculture and forestry can all have a negative impact on water quality. This clip looks at the consequences for the people of Galway when drinking water became contaminated and at how the problem can be tackled with appropriate water treatment.

Watch the clips and complete the comprehension exercise.





Comprehension

Protecting our drinking water

1. How many boil water notices were issued between December and March in 2007?

2. Why did they have to boil the water?

3. Why did Galway have a full scale emergency with its water supply?

4. How many people were affected? _____

5. How did the drinking water become polluted?





6. List some of the sources of the contamination that entered the water upstream:

1. _____
2. _____
3. _____
4. _____

7. What was the biggest source of pollution?

8. There has been a lot of development in the region. What do we mean by development?

9. How can contaminated water affect our health and who is most at risk?





10. What are the main effects of rapid growth on our water supply?

11. Chlorine is no longer completely effective in dealing with water contamination. Explain:

12. Why does the speaker, Niall O’Brolchain, suggest that we need one Water Authority?





Extension Activities

Map work/IT

Log on to EPA maps on www.epamaps.ie and examine the water quality in your local area.

- Click on the Water Quality box and on the General Administration box to show the counties.
- Click on the Land box to show the land use in the area.
- How does it compare with neighboring counties and the rest of the country?
- Can you account for the variation in water quality in your area or county (Agriculture, forestry, new housing development and industry)?

Individual work - cross curricular links with Maths

Using the information above complete a bar graph to show the river water quality in your county. There are five levels, you will need five bars. You could also use a pie chart to represent the data.

Group work

Working in pairs:

- Log on to <http://maps.scoilnet.ie/>
- Open the 1830 historic map and the OSI 1:50,000 map and search for examples of past and present water uses e.g. weirs, water mills, canals, quays etc.
- Make a list of all the examples you find.
- Use the mirror and stitching function to compare the development in your area. Use the stitching icon to compare the 1830 map with the current 1:50,000 OSI map and aerial photograph.

