



Glossary Game: Problem Pollutants

Time needed for activity 15 – 30 minutes

Location Indoors or outdoors

Context

This game focuses on providing learners with a basic introduction to five of the most common pollutants that can enter our watercourses.

Natural Resources Wales' purpose is to pursue sustainable management of natural resources in all of its work. This means looking after air, land, water, wildlife, plants and soil to improve Wales' well-being, and provide a better future for everyone.

Curriculum for Wales

Science and Technology

- **What matters** - Being curious and searching for answers is essential to understanding and predicting phenomena.
- **What matters** - The world around us is full of living things which depend on each other for survival.

Languages, Literacy and Communication

- **What matters** - Understanding languages is key to understanding the world around us.

Objectives

By the end of this activity learners will be able to:

- Confidently use key vocabulary associated with pollution.
- Explain what the five most common pollutants are and understand why they are damaging to the natural environment.

Equipment and resources

- **Resource cards - Problem pollutants**

What to do

It is recommended that this activity be carried out as an introduction to other activities which focus on pollution.

The game cards are made up of 5 sets. Each set has a:

- Picture card
- Definition card
- 'What is it?' card
- 'Source of pollution' card
- 'Becomes a problem when?' card



The activity can be adapted and carried out in a variety of ways, including:

- Groups of learners each have the full set of resource cards to work through and match correctly. They then compare their sets of cards as the group leader reveals the correct answers.
- For a more active game, give each student a card. The learners must then circulate, looking at and discussing each other's cards to find learners with cards that match their own. When the learners find others with matching cards they must form a group containing one learner with a picture card, a definition card, a 'what is it?' card a 'source of pollution' card and a 'becomes a problem when?' card.
- If space allows the activity can be run as a relay race. Scatter the cards randomly on the ground, spread out over an area. Working in groups, only one learner from each group can run to the centre to collect a card at a time before returning to their group to discuss and match their card. This activity could be run with:
 - Each group looking to find and match the cards for one type of pollution.
 - Each group looking to find and match the full suite of cards for five types of pollution.

Whichever way the activity is carried out allow time at the end for the groups to present their cards and explain their reasons for matching.

Suggested key questions

- What does this word mean? Pick a definition card and ask your learners to explain what it is and why it's a problem pollutant.
- What controls could be put in place to stop and limit the damage caused by these 5 common pollutants?
- Can you think of any other polluting substances that may enter our watercourses?
- Are there any steps you as an individual can take to reduce the risk of problem pollutants entering our watercourses?

Adapting for different needs/abilities

Less able

- Use only the picture and definition cards.
- Use only the picture, definition and 'what is it?' and 'source of pollution' cards.
- Deliver a more adult led version.
- Stagger the introduction of new card sets so that new vocabulary is learnt in stages.

More able

- Learners can be given the word and picture cards, and blank cards to write their own words for the 'what is it?' and 'becomes a problem when?' cards.



Follow up activity/extension

- Use the internet to research the words used and find other pictures to make a different version of the game. Can any extra words be added? A new set of game cards made for others to match?
- Ask your learners to create a poster to raise awareness of problem pollutants and the damage they cause.
- Ask your learners to imagine a pollution incident has happened in your settings' pond/local lake or watercourse. Supply them with some fake key facts e.g. when/where/what etc.
Hold a local council meeting to decide what's the best course of action to ensure such an incident never happens again. Working in pairs or individually ask each learner to take a role and prepare their arguments for the meeting e.g:
 - A pair of local fishermen that enjoy fishing in the watercourse.
 - A pair of Environment Officers from Natural Resources Wales that have investigated the pollution incident.
 - A concerned member of the public.
- Ask your learners to imagine they are a reporter for the local newspaper. Ask them to write a headline article for the newspaper about the pollution incident.

Other pollution activities

- Activity Plan – Problem Pollutants – explains how to make fake samples of the problem pollutants in this activity. Can your learners successfully order them from problem pollutant to most toxic?

Additional information

- **Information note – Dissolved oxygen levels in water** – our information note explains the science behind how dissolved oxygen levels in water are lowered when problem pollutants enter watercourses.

Looking for more learning resources, information and data?

Please contact: education@naturalresourceswales.gov.uk or go to <https://naturalresources.wales/learning>

Alternative format; large print or another language, please contact:
enquiries@naturalresourceswales.gov.uk
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