

# Case Study “Plastics in our waterways”

## Activity Sheet 1 “What are the facts?”

### Introduction:

Activity Sheet 1 is used as an introduction to this case study. It aims to raise awareness of the size and significance of plastics in our waterways and how these can be interpreted as a hazard. This activity also leads into discussion about which classification of hazards plastics in our waterways would fit into.

The content of this activity sheet relates to the following Key Knowledge and Skills:

### Key Knowledge - Area of Study 1

- The classification of types of hazards by their causes and the interconnections between causes
- The nature of hazards

### Key Skills

- Collect, sort, process and represent data and other information
- Identifying contrasting hazards and hazard types
- Describe the characteristics of selected hazards

### Introductory Activity

#### Steps

1. Divide the class into groups of 4-5.
2. Explain the rules of the game/activity.
  - Working together, each group is to find out as many facts/statistics about plastics in our waterways and write down each fact (for this activity it is easier and quicker if they write each fact on a separate sticky note that is provided or [Padlet](#)).
  - Students can access online resources to find these facts.
  - Each group then takes it in turns to read out their fact.
  - If this fact is acceptable a member of the group places the sticky note on the whiteboard (or keeps the Padlet note). If you believe that the fact is not acceptable or has already been used the group has the chance to read out another fact.
  - If the group no longer has any facts they are out of the game.
  - This process continues until there is only 1 group left.

3. Allocate a time period to research that suits your class (10-15 minutes should be sufficient and means that the focus is maintained). Once the allocated time for this activity is up, students are to stop researching and organise their facts.
4. Before the groups read out the facts designate the order. It is suggested that if there are 4 groups then for fairness the order should be groups 1,2,3 and 4 followed by groups 4,3,2 and 1 and so on.
5. At the end of the game you should have a wide range of facts that will open discussion such as:
  - What facts surprised you the most?
  - Were you aware of the size of the problem?
  - What emotions or thoughts did you have whilst statements were read out?
  - Which of the facts do you believe were the most important?
  - Can you categorise these facts into any order?
  - Which of the problems associated with plastics in our waterways need to be dealt with first and why?
  - Whose responsibility is it to deal with this problem?
6. Get students to select 10 -15 of the facts that interested them the most and write them down in their notes. Alternatively record them in a way that suits your class (if you used Padlet then the board could be printed or emailed to students).
7. With these facts in mind discuss and then answer the following questions:
  - a. Explain how plastics in our water ways can be classed as a hazard.
  - b. Which category of hazard would plastics in our waterways fit into? Explain why.
  - c. Is it possible that plastics in our waterways could relate to two different classifications of hazards? If so, provide an example to illustrate your point.
8. To provide an overview of this topic watch "[Baykeepers Documentary Film](#)". This can be found on [Youtube](#).

A good article that summarises the content of this topic is "[Plastic and how it affects our oceans](#)" from ABC News"

As alternative to the above activity you could use and modify those found on Activity Sheet 7 in the Water in the World unit.