



Turtle minesweeper

This activity plan highlights the importance of sustainably managing our natural resources, focusing on the impact littering and fly-tipping can have on the environment and wildlife.



Natural Resources Wales' purpose is to pursue the 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.

Objectives

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

- Explain how discarded plastic bags can be a danger to marine wildlife

Duration of session

15 minutes

Location

Any location space permitting

Curriculum area

ESDGC



Curriculum links

KS2 ESDGC

Consumption and waste

Where the things people consume come from and go to
That waste can cause pollution

KS3 ESDGC

Natural environment

Show informed concern for the quality of
the natural environment near and far

Equipment and resources

- Paper
- Clipboard
- Pencils
- Something to mark out a grid on the floor (e.g. chalk, sticks or tape)

What to do

Discuss how our waste often finds its way into the ocean, where it can have a detrimental effect on wildlife. Plastic bags can be mistaken for jelly fish by marine animals including turtles and dolphins. Mistakenly eating a plastic bag results in blockages in their digestive system and death.

1. Lay out a 4 x 5 grid on the floor – each square should be large enough for one learner to stand inside.
The grid could be made a number of ways including using chalk on a yard, tape on the floor or even using sticks.
2. The grid represents the ocean and each member of their team represents a turtle. The aim of the game is to get as many turtles from one side of the ocean to the other. However there are “plastic bags” hidden in the ocean that can be mistaken by the turtles for jellyfish. Eating a plastic bag can result in the turtle dying.
3. A turtle can travel across the grid one square at a time. It can only move to a square adjacent to the one they are currently on (i.e. it cannot skip or jump over a square). It can travel forwards, backwards or side to side but cannot travel diagonally.
4. Divide into 2 groups, give each group a clipboard and plain paper. Each group will then need to draw a 4x5 grid on their paper. They will then mark a set number of ‘X’ onto their grid representing plastic bags which are hidden in the ocean. The groups have one less plastic bag to place than members in the opposing group (i.e. for a group of 6 you would need to place 5 plastic bags). There has to be a safe route that the turtles can travel through without eating a plastic bag.

5. The aim of the game is to get as many “turtles” across the ocean (grid) without being killed by a plastic bag (‘x’).
6. Group one will cross the “ocean” while group two follows progress. The first “turtle” will begin to cross the grid one square at a time. If they walk into a square marked X the opposite team shout “plastic bag!”. This “turtle” is now out of play. The plastic bag remains in the same location. The next group member will then attempt to cross the ocean trying to avoid the locations of the plastic bags.
7. Each group member has one attempt to cross the grid. The group scores one point for every member who successfully crosses the grid without walking into a plastic bag.
8. After each member has had a turn both groups trade places and the second group tries to get across the first groups grid.
9. The winners are the group with the most turtles safely across.

If you are working with a large group you could consider having 2 grids and dividing into 4 groups, or using a larger grid.

Suggested key questions

- How does rubbish in the oceans effect the wildlife?
- How do plastic bags end up in the ocean?

Adapting for different needs/abilities

Less able:

- Have a worksheet with the grid already drawn on it so that the group only need to decide where to place the plastic bags 'x'
- Get each group to place less plastic bags on the grid

More able:

- Use a larger grid and allow each team to place more plastic bags "x"
- Use grid references to move around squares

Follow up activity/extension

Try out our other waste activities:

- *Long lasting litter*
- *Newspaper snippets*
- *Did you know?*
- *The 3 C's of littering and fly-tipping*

Additional information

A variety of photographs can be found on the internet showing how easy it can be for plastic bags to be mistaken for jellyfish.