

The Breakdown Game Lesson Plan

This activity links with the Dispose of Waste Properly principle of Leave No Trace

Activity: To investigate how long different types of waste take to breakdown

Learning Objectives: Explore how long rubbish and litter take to breakdown through a visual and hands-on activity. Understand the impacts that litter can have on our natural environment and identify what we can do to ensure we leave no trace in the outdoors

Links to Curriculum:

SPHE Strand: Myself and the Wider World, Strand Unit: Developing Citizenship

SESE Geography Strand: Natural Environments, Strand Unit: The Local Natural Environment

SESE Geography and Science Strand: Environmental Awareness and Care, Strand Unit: Caring for My Locality

Time: Introduction 5 minutes, Activity 15-20 minutes, Wrap-up 5 minutes

Materials: Pictures of several items of rubbish or the actual items of rubbish, the list of breakdown times included below and a copy of the accompanying Breakdown Time Cards cut up individually

Method

1. Discuss with the class about how litter and waste breakdown
2. Spread the time cards throughout the class, either on desks or stuck to the classroom walls
 3. This can be carried out individually or in pairs depending on how many images or items of rubbish you have
 4. Give each student or pair of pupils an image or a piece of rubbish
 5. Ask them to walk around the class and look at all the time cards. They need to guess how long their piece of rubbish takes to breakdown and stand beside that card
 6. Walk around the class and ask pupils why they chose that breakdown time. If they are incorrect tell them the actual breakdown time and ask them to go stand by the correct time card
 7. When they finish, it would be nice to have them line up in order from the shortest to the longest time
8. Discuss as a class what they thought about the results. Were they surprised at how long some items take to breakdown?
9. Now imagine this litter in the outdoors, what impacts could this litter have on the environment?
10. Ask the class for ideas on how each piece of litter could be reduced, reused or recycled instead



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Reflection:

How does rubbish end up as litter in the outdoors?
Who is responsible for keeping areas litter free?
What can we do to ensure we Leave No Trace in the outdoors?

Further Investigation:

Complete The Breakdown Game Quiz to wrap up the lesson. A great follow on experiment is to bury different types of waste in the school grounds, leave them for a month and then dig them up. Pupils can predict rates of decomposition and record the extent of decomposition of different items of rubbish.

**For more information on the Dispose of Waste Properly principle
and the other Leave No Trace principles visit:
www.leavenotraceireland.org**



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RUBBISH BREAKDOWN TIMES

Aluminium can.....	400-500 years
Apple Core.....	2 months
Orange or Banana Peel.....	Up to 2 years
Plastic Bags.....	10 to 20 years
Glass Bottles.....	Forever
Plastic bottle.....	1,000,000 years
Plastic Coated Paper.....	5 years
Nylon Fabric.....	30 to 40 years
Leather.....	1 to 5 years
Wool Socks.....	1 to 5 years
Styrofoam.....	Forever
Fishing Line.....	600 years
Disposable nappy	450 years
Paper bag.....	1 month
Leather boot or shoe.....	40-50 years
Cigarette Butts.....	2 to 5 years
Plastic 6-pack Holder.....	100 years

