



If you throw something away, how long will it stay? - A visual and hands-on activity to explain how long it takes for different materials to decompose.



Learning experience



Topic
Littering



15-20 Min



Participants

- know about decomposition rates of different materials
- understand the impact of waste, e.g. on fauna or water pollution
- understand the problems of throwing waste into the environment, even if it's compostable
 - are able to reduce waste when practising outdoor sports
 - are motivated to take litter when practising outdoor sports



Suitable for
outdoor sports instructors
and course participants



Practical sessions
Theoretical lessons



Outdoor F2F
Indoor F2F
Digital



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Materials needed

- Pictures of items or items themselves
- Pages /cards with time periods to represent the number of years it takes for each of the items to decompose



Preparation

Distribute each of the pictures, one to each participant, or as many to each participant as necessary to distribute all of them as evenly as possible. Distribute the cards/pages with the times similarly marked on them. Try to ensure that no one is holding a picture that matches its associated time page/card.

Activity instruction

Have the participants roam around trying to figure out what pictures match up with what time periods. As they make their matches, you can comment on their accuracy and have them try to correct any errors. See below for a list of the approximate decomposition rates for common items:

- Cigarette butt.....1 to 10 years
- Apple Core.....1 to 2 Months
- Aluminium can.....80 to 100 years
- Plastic 6-pack Holder.....100 years
- Orange or Banana PeelUp to 2 years
- Plastic Bag1 to 1,000 years
- Glass Bottle1,000,000 years (forever)
- Plastic Coated Paper.....5 years
- Leather.....50 years
- Wool Sock.....1 to 5 years



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Reflection and discussion

After all items and corresponding rotting times have been sorted to pairs, the guide can lead some reflection on the impact of waste and littering.

- What rotting times/items were surprising for you?
- What impacts do the items cause to wild fauna, freshwater etc.?
- How can we limit the amount of waste during outdoor sports? (e.g. using refillable bottles, unpacked food etc.)
- Imagine what positive impact you can make by taking litter home with you (even if it is not yours)! (e.g. if you take home a)

If you have problems with waste around buildings or outdoor sport centres (e.g. cigarette butts), you can also talk about ways to motivate people to collect litter or separate it correctly.



Potential Variations

The Breakdown Game can also be played online.

Try this easy Learning Apps version.





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Background knowledge

Decomposition times:

Generally, it is hard to name an exact rotting/decomposition time for items. The composition of the material can be very different, especially in the case of artificial fabrics. Additionally, external conditions play a significant role and depending on the weather conditions, the process takes longer or shorter. For these reasons, only a rough time window can be specified for the rotting of waste.

Impact of waste:

The impact of waste is manifold.

- Wild animals can be disrupted in their diet, even when dealing with organic waste. It is particularly serious when indigestible materials such as plastic bags are mistaken for food (e.g. plastic bags that turtles mistake for jellyfish). Furthermore, fruits are often treated with pesticides and/or synthetic pesticides if they are not organic.
- Plastics will decompose into micro-plastic that spoils the environment, including our groundwater. - Sometimes, also, the seemingly small things add up. 4.5 trillion cigarette butts are thrown away every year. Therefore, cigarette butts play a large role in terms of pollution of the environment through waste worldwide. Moreover, it is not only the number, one single butt can contaminate between 40 and 60 litres of clean groundwater with its mix of toxins.



Key words
#littering

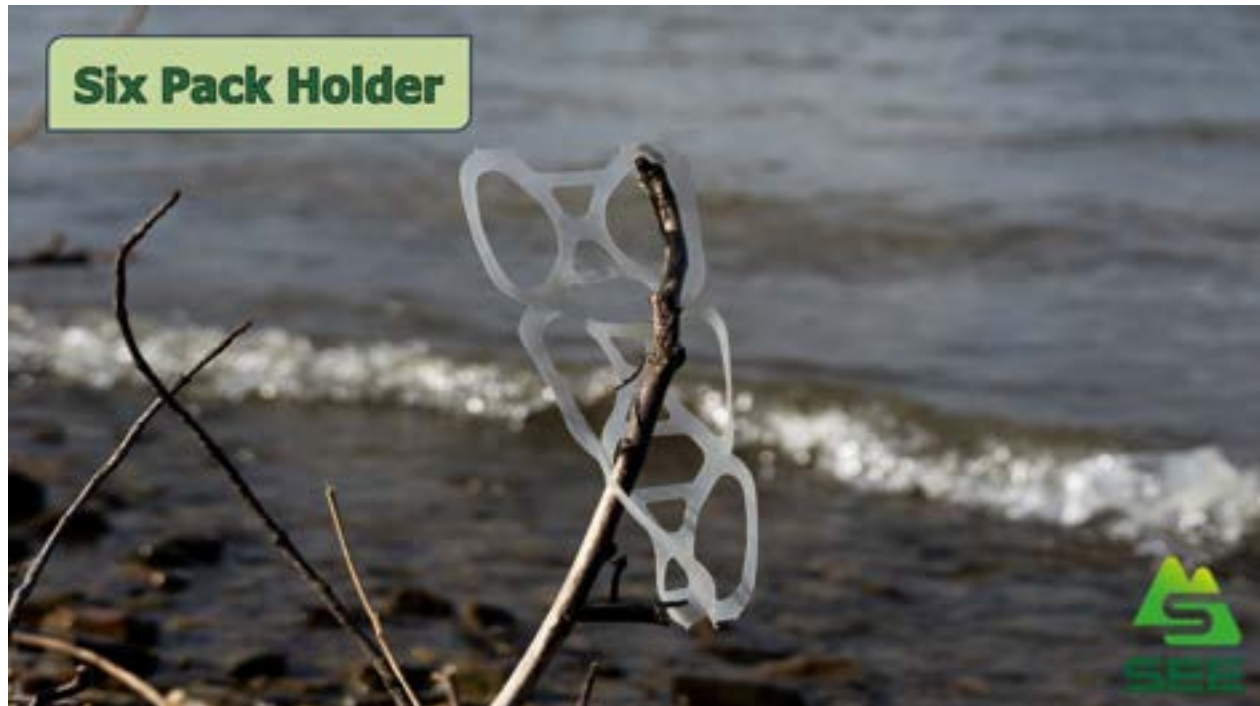


Source
101 ways to teach
Leave No Trace



Presented by
Noel Doyle
Leave No Trace Ireland







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Leather



Wool





1 to 10 Years



1 to 2 Months



BREAKDOWN GAME



Materials



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80 to 100 Years



100 years



Up to 2 years



1 to 1000 years



BREAKDOWN GAME



Materials



Co-funded by the
European Programme
of the European Union



Up to 1,000,000 years



5 years

More activities under see-project.eu



50 years



1 to 5 years