

# Decomposition Rates Game

Sort waste by how long it takes to decompose

5 - 9

Energy Sources & Sustainability



## Decomposition Rates

Banana peel 4 weeks  
Paper towel 4 weeks  
Toilet roll 1 month  
Paper bag 1 month  
Newspaper 6 weeks  
Cardboard box 2 months  
Apple core 2 months  
Cotton 5 months  
Orange peel 6 months  
Plywood 3 years  
Milk carton 5 years  
Cigarette ends 5 years  
Wool 5 years  
Plastic bag 20 years  
Leather shoes 40 years  
Polystyrene cup 50 years  
Tin can 50 years  
Drinks can 200 years  
Plastic bottle 450 years  
Nappies 450 years  
Glass bottle undetermined

## Equipment

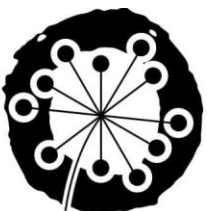
- A selection of waste materials as listed on the left
- Chalk
- Measuring tape

## Activity

1. Provide children with an item each from the materials listed in the left-hand column.
2. The first challenge is to place the items along a line guessing in what order they would decompose.
3. The next level is to provide the children with the decomposition rates so that they can reorganise the materials in the correct order.
4. A more advanced **numeracy-based** challenge would be for the rates to be measured out to scale along the line - bear in mind you will need a pretty long playground to include cans and plastic (or you will need the line to go round a corner.)

This activity can be a springboard for **debating** the problems posed by single use plastics as they stay in the environment for so long.

Can the children calculate just how many generations of their family will have lived by the time the plastic bottle in the demonstration has decomposed?



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