

Name of session	Earth Care		
	Level: Key stage 1	Length of session: 2 hrs (half day)	Available at: Sutton Ecology centre & at your school
Curriculum Links			
Science			
Working scientifically			
<ul style="list-style-type: none"> observing closely, using simple equipment using their observations and ideas to suggest answers to questions gathering and recording data to help in answering questions. 			
Everyday Materials			
<ul style="list-style-type: none"> distinguish between an object and the material from which it is made identify and name a variety of everyday materials; plastic, glass, metal, paper, cardboard describe the simple physical properties of a variety of everyday materials compare and group together a variety of everyday materials 			
Uses of Everyday materials			
<ul style="list-style-type: none"> find out how the shapes of solid objects made from some materials can be changed 			
Design and Technology			
Design			
<ul style="list-style-type: none"> design purposeful, functional, appealing products for themselves and other users based on a design criteria gathering and recording data to help in answering questions. 			
Make			
<ul style="list-style-type: none"> Select from and use a wide range of materials and components 			
Previous knowledge expected from students		Key concepts/key words	
To have heard the word Recycle and have some idea of what it means. To know that rubbish can be recycled or put in the bin.		Reduce, Re-use, Recycle, Landfill, materials, resources, paper, glass, plastic, metal, compost	
Learning objectives			
<ul style="list-style-type: none"> To learn that everyday objects are made from different materials and which resources materials are made from: paper and cardboard from trees; plastic from oil; metal from metal ore; glass from sand To learn that we don't have to throw rubbish in the bin, it can be Recycled, Re-used or Reduced, and what each of these terms means. To be able to distinguish which materials can be recycled and which can't. To learn that materials can be changed and recycled into new things, such as recycling paper. To understand how composting works as a type of recycling and how this compares to what happens in a landfill site. To be able to use appropriate materials to make model from 'junk'. 			
Outcomes			
<ul style="list-style-type: none"> Pupils will be able to suggest alternatives to throwing rubbish in the bin, i.e. recycle it, re-use it or not use it in the first place. Pupils will have sorted everyday objects into what can and cannot be recycled. Pupils will have observed how composting works and placed everyday objects on a degrading timeline in relation to a landfill site. Pupils will all make a piece of recycled paper from paper pulp. Pupils will have selected appropriate junk materials and made a model of a recycling robot or a minibeast. 			

Introduction (20 mins)	
<p>Welcome, and introductions.</p> <p>Talking Rubbish: looking at some everyday objects we throw away, what materials they are made from and which resources do they come from. What will happen eventually, if we keep using all our resources? (They will eventually run out). This leads on to a discussion of the three R's: Reduce, Reuse and Recycle.</p>	
Main Activities	
Timings	Student Activity
15mins	<p>Recycling Relay Race Game</p> <p>In teams, pupils sort a bag of rubbish into what can and cannot be recycled at home/the local area.</p>
10mins	<p>Nature's Recycling</p> <p>Visit to the compost bays at the Ecology Centre and discovering how composting happens.</p>
15mins	<p>Degrading Timeline</p> <p>What happens to rubbish that isn't recycled? It goes into Landfill sites. Pupils are shown a picture of a landfill site. Then some pictures of everyday objects that end up in the landfill site. They have to place these on a timeline from a few weeks to a million years as to how long they think they take to degrade in the landfill site. At the end of this, we look at how all of the rubbish could either be recycled, re-used or reduced so that it didn't end up in the landfill site.</p>
45mins	<p>Paper making</p> <p>Using paper pulp and paper making equipment, each pupil makes a piece of recycled paper to take back to school to dry.</p> <p>Junk modelling</p> <p>Using a variety of different junk, pupils can choose to make a 'recycling robot' or 'invent a minibeast'</p>
Plenary (15mins)	
<p>What can we do at home or school? Is anyone going to do anything different?</p> <p>Wash hands and prepare to leave.</p>	
Extension work	
<p>Improving your junk model.</p>	

Pre-course preparation work suggestions

Research homework suggestion: find out three reasons why it is important to recycle (ask adults at home for ideas) - draw 5 items that go in to the rubbish bin and 5 items that can be recycled. This provides the teacher with information on what they already know. Also, collect junk to make a class mascot to remind the children to recycle.

Further Work (post course) suggestions

Design and create a 3 R's poster for school.
 Visit your local recycling plant/ landfill site.
 Do a waste audit at school, weigh what is thrown away, and how much could be recycled?
 Write formal letters: thank you letters, which activities did you like, which did you not?
 Evaluate each other's junk models.

Alternatives (field sites and wet weather)

This session is not translatable inside, and therefore will go ahead in wet weather.
 The introduction and plenary can be done inside if the weather is wet or too cold/windy.
 The session will be cancelled only due to severe weather warning such as flooding, high winds and stormy weather.

Opportunities for evaluation

Teacher evaluation: Photograph pupils in action for evidence, observation throughout the session, assess understanding post session through activities and questioning. By providing appropriate level of adult/child ration to ensure pupils are kept 'on task'.

Leader evaluation: The session leader will assess progress throughout the day by open ended Questioning and plenary session. Through observation, the session leader will ensure that all pupils are engaged in learning and complete the tasks required.

Resources

Selection of everyday objects.
 Recycling relay Race game: bins, bags of clean rubbish
 Landfill timeline, picture of landfill, picture of objects in landfill
 Paper pulp, paper-making frames, j-cloths, sponges, labels, pencils.
 Selection of junk for junk modelling, scissors, string, glue.

Key H&S

Please read the Health & Safety Notes provided.
 Sutton Ecology Centre provide one Education Officer for your group. Schools must provide a suitable number of adults to ensure pupils safety and engagement in the tasks.
 Dress and prepare for the outdoors. Long trousers due to tall grass, brambles and nettles.
 Sensible footwear in all weather conditions.
 Waterproofs in wet weather. Sunhats, suntan lotion and water bottles in hot sunny weather.
 All pupils and teachers should wash their hands prior to leaving the site or eating.
 Teachers should arrange a pre-visit to discuss specific health & safety requirements to generate their own risk assessments.
 Course leaders: Site check and dangerous litter pick. Health & Safety talks when appropriate.