

GAMES FOR THE OUTDOOR CLASSROOM



Farming & Countryside Education



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Introduction

Many young people are not motivated by conventional teaching methods and research has demonstrated the benefits of offering experiences in other ways.

There are numerous lively and fun games and simulations used by practitioners to help young people to learn more about food, farming and the countryside. These range from using variations on party games to explain concepts of biodiversity, through role playing the processes of flower pollination to making a photosynthesis tree.

This booklet has come about because of a FACE seminar that was held to share ideas used whilst working with young people. We hope that you find them useful and that they provide inspiration to adapt or create your own games.

Further games which act as ice breakers and team building activities have been produced by the National Trust. Copies have kindly been made available and can be obtained from FACE.

Birds of Prey

Topic/s	Food chains
Purpose	To illustrate the relationship between predator and prey
Materials required	For the bird of prey: Blindfold For the prey: Elastic cuff with one or more bells attached
Space required	Classroom or similar space indoors or out
Instructions	The children hold hands and form a circle. One child is chosen to be the predator and wears the blindfold. The child takes up a position within the circle. Several children are selected to be the prey – the more the merrier, as long as the circle shape can be retained!
Comments	The predator then has to try to catch all the prey, relying on sense of hearing. As the prey are caught, they stand outside of the circle. The children making up the circle can move closer together to make a smaller space as prey are caught. More realism can be injected by the use of animal masks (with no eye holes in the case of the predator!)
Suggested by	Liza Dibble, National Trust

Busy Bee

Topic/s

Flowering plant reproduction

Purpose

To reinforce parts of a plant and their different functions
To illustrate how pollen is transferred from one flower to another

Materials required

For the bee:
1 black and yellow striped jumper
1 woolly hat with antennae

For each flower:
3 or 4 large card petals
3 socks for stamens
1 woolly hat for stigma
6 ping pong balls with Velcro attached for pollen
1 "sports" drink bottle representing nectary
1 bag pot pourri or cheap bottles of perfume for scent

Space required

Classroom or similar space indoors or out

Busy Bee cont...

Instructions

The game starts by asking pupils to be various parts of the flower. A group comprising 3 petals, 2 or 3 stamens and a stigma plus 1 person with drink and 1 person with perfume come together to make up a flower (Repeat several times to create several flowers.)

Each part of the flower understands their role when the game starts i.e. petals and perfume try to attract the bee. Bottle of "nectar" offered to bee as food. Stamens transfer pollen onto back of bee. Stigma transfers pollen from back of bee to woolly hat.

One person volunteers to be the bee and wears jumper and hat with antennae. He/she is attracted to one of the flowers, takes some food and then moves on to another flower.

At the end of the game pollen will have been distributed onto the stigmas of the various flowers.

Comments

Lots of activity and fun for all. Which adult can you persuade to dress up as the bee?

Suggested by

Bill Graham, FACE

Farm Food Web

Topic/s	Food webs
Purpose	<p>To demonstrate the complexity of food webs</p> <p>To illustrate how the whole web is affected by changes to one part</p> <p>To show that food webs rely on the basic needs for life (light, water, air)</p>
Materials required	<p>5 or 6 posts with a water symbol attached plus a hook inserted</p> <p>1 post with a sun symbol attached plus hook inserted</p> <p>Approx 15 belts with a springclip attached along with 3 cords (yellow, dark blue, light blue) each of which has a ring on the end</p> <p>Cards for each participant to wear with a picture indicating what creature they are e.g. fox, hen etc</p>
Space required	Outdoor area where the water posts can be hammered into the ground to make a circle. The sun post is placed at the centre.
Instructions	<p>Begin by talking about simple food chains and how they start with the sun's energy. Participants are given a card to wear so they represent an animal or plant and a belt with three cords and a clip attached.</p> <p>The cords on the belt are there to represent the basic needs for life: yellow is energy (plants get this from the sun while animals obtain theirs from plants or animals); dark blue is water; light blue is air (on the whole, plants take in carbon dioxide and give off oxygen while animals</p>

Farm Food Web cont...

take in oxygen and give off carbon dioxide).

Send the plants into the food web first. They connect their yellow cords to the post with the sun symbol, dark blue cords to a post with a water symbol, light blue cord will be used to connect to animals when they join the web.

Now send the herbivores into the web. They connect yellow cord to the plant they eat, dark blue to a water post and light blue to any plant.

Finally, send the carnivores into the web. They connect the yellow cords to the animal they eat, dark blue to a water post and light blue to a plant.

What you should have now is an interwoven web!

Comments

The game can be used to illustrate the links to the basic needs for life or to demonstrate what happens if different elements are removed.

It can be simplified by giving each participant only 1 cord instead of 3 e.g. using just the yellow cords to demonstrate how energy connects everyone.

A further simplification is to use a ball of wool that is passed between the plants and animals.

Suggested by

Bobbie Harvey, FACE

Feed the Animals A

Topic/s	Physical activity
Purpose	To use the feeding of animals as a vehicle for an energetic activity.
Materials required	Four plastic buckets or similar container for each team. Three of the buckets will have a picture or name of a different farm animal and the fourth bucket containing bean bags represents the food store. Bean bags or similar (one colour for each team)
Space required	School hall or outdoor area
Instructions	<p>Divide the group into teams of equal numbers. The children sit in a row, one behind the other with the "food store" bucket containing three bean bags at the front of the row. Each of the team's animal buckets is spaced at intervals in a line in front of them.</p> <p>Team member 1 picks up a bean bag and runs to the first bucket. The child returns to the food store and takes a second bean bag which has to be put in the second bucket and finally returns for the third bean bag which is placed in the third bucket. The child runs to the second team member and touches his/her hand and goes to the back of the line. The game continues until all the team members have taken part and the winning team is the one first to complete the feeding routine!</p>

Feed the Animals A cont...

Comments

This basic game can be adapted in many ways to suit the situation and the number and age of the children.

The bean bags can be substituted by e.g. a card bearing the name or picture of the feed. The team has to ensure that the correct feed is given to each animal as depicted on the buckets. Alternatively, the actual feed could be enclosed in strong plastic bags.

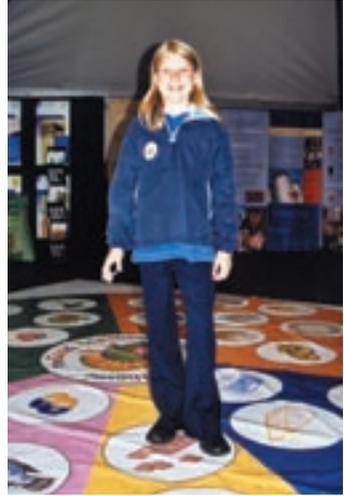
Suggested by

Brian Hainsworth, FACE

The Gallery



Birds of Prey



The Good Health Game



Busy Bee



Feed the Animals A



Farm Food Web

The Gallery cont..



Guess the Veg!



Musical Trees



Insect Pollination Game



Wind Pollination



The Photosynthesis Tree



Woodland Words

Feed the Animals B

Topic/s	Numeracy
Purpose	To provide an energetic activity to intersperse with other less physical tasks. To use the feeding of animals as a vehicle for simple number work.
Materials required	Six numbered plastic buckets each with the picture or name of a different farm animal Bean bags (one colour for each team)
Space required	School hall or outdoor area
Instructions	<p>Give a bucket to each of six children and place them in a line at one end of the space. Divide the remaining group into six teams of equal numbers. The teams take turns to line up and throw their bean bags, aiming into the buckets!</p> <p>The children then calculate their team's score by adding up the number of their own coloured bean bags in each numbered bucket.</p>
Comments	<p>This basic game can be adapted in many ways to suit the situation and the number and age of the children.</p> <p>For example, the larger numbers on some buckets may relate to the need for some animals to be given more food by the farmer. The numeracy aim can be altered: "Who can get the lowest score? Who can score 21? etc"</p>
Suggested by	Brian Hainsworth, FACE

The Good Health Game

Topic/s	Healthy Eating
Purpose	To reinforce idea of a balanced diet for health To help children learn about food groups
Materials required	Large playmat available from HGCA, or similar Balance of Good Health diagram
Space required	Floorspace large enough to contain mat, indoors or outside
Instructions	<p>Place the large mat on the floor and ask the children to stand or sit around its perimeter. Give each child a food card. Go round the group asking each child to name the food item on their card. This should lead to discussion about food groups and why the mat is divided into different sized “portions.”</p> <p>The children can take their places on the mat, according to the food group their card belongs to. This can be done one by one or section by section (“All those who belong in the fruit and vegetables group...” etc)</p>
Comments	<p>There are many ways of using the mat and lots of opportunities for discussion about food groups and healthy eating.</p> <p>Lots of variations can be introduced based on foods the children like; or ones they can identify; or ones they would like to incorporate into a meal etc</p>
Suggested by	Rebecca Geraghty and Therese Coleman, Home Grown Cereals Authority

Guess the Veg!

Topic/s	Literacy, the senses and food
Purpose	To help children become more aware of a range of vegetables To increase sensory skills To improve vocabulary and communication skills
Materials required	A selection of vegetables and numbered carrier bags
Space required	Anywhere
Instructions	Remind the children of their five senses and elicit examples of appropriate “describing words.” Ask the children to form small groups and to nominate one child to come and collect a bag containing a mystery vegetable. Without showing the contents of the bag to the others, the child has to describe the vegetable using their senses. The rest of the group guesses what is being described. A different member of the group returns the bag and collects a second one.
Comments	A variation of the game is for two players to sit back to back. One describes the vegetable for the other to guess.
Suggested by	Mo Braham

Insect Pollination Game

Topic/s	Flowering plant reproduction
Purpose	To illustrate how insects help with the cross-pollination of plants
Materials required	Two margarine tubs or similar, one containing red and the other white powder paint. These can be placed on a cardboard outline of a flower. The tubs represent the stamens producing the pollen for two different flowers. Two collecting dishes and one cotton bud for each team.
Space required	Outdoor space
Instructions	<p>Divide the group into teams and arrange them in lines at one end of the space. At the other end of the space two tubs are placed on the ground, one with red powder and the other with white powder.</p> <p>The first member of each team runs to the first tub carrying a cotton bud and collects some "pollen." The team member returns to their team and deposits the pollen in a collecting dish. The child repeats this activity for the second tub of different coloured pollen. The remaining team members take turns until they have all completed the activity.</p>
Comments	The children think the aim of the game is to collect the most pollen in their collecting dishes. However, in doing so, they have in fact mixed up the colours in the two tubs of "pollen" showing how cross-pollination takes place.
Suggested by	Becki Pulford, Moulton College

Musical Trees

Topic/s	Environment
Purpose	To explain the relationship between people and their environment To introduce the concept of woodland habitats
Materials required	Chairs or other seating Music e.g. CD player
Space required	A large indoor or outdoor space
Instructions	<p>The game is played like musical chairs. Each of the chairs represents a tree in the woodland while the person sitting on the chair is a woodland creature.</p> <p>When the music is stopped, some of the trees are missing (as the chairs have been removed) due to a variety of "disasters" e.g. cut for timber, housing, storm damage.</p>
Comments	<p>Hopefully, the children realise that when the tree is removed their home is destroyed.</p> <p>Variations can include: the children wear masks or labels they have created to represent different creatures. Putting a road through the wood means there are two separate sections to the game because the creatures cannot cross from one side to the other.</p>
Suggested by	Bill Graham, FACE

The Photosynthesis Tree

Topic/s	Photosynthesis
Purpose	To represent the process of photosynthesis in artistic form through tree hangings.
Materials required	A variety of artist's materials or "scraps" such as fabrics, tissue paper, wool, pipe cleaners etc
Space required	Space indoors or in dry area outside to assemble materials plus tree to decorate with hangings
Instructions	<p>Remind the children of the process of photosynthesis. (The plant uses light energy to convert carbon dioxide and water into sugars and oxygen.)</p> <p>The children then use their imagination and artistic skills to create a representation of this process. They might create model sweets to represent sugars, blue fabric to represent water etc</p>
Comments	Tree dressing is a revival of an ancient custom and is a way of celebrating local trees and encouraging people to become more committed to caring for their local environment. The same activity can be used as in this game to help children learn about scientific concepts in a fun way.
Suggested by	Bobbie Harvey, FACE

Tree Running

Topic/s	Photosynthesis
Purpose	To help children understand the important role played by trees
Materials required	No special materials
Space required	A large space preferably outdoors
Instructions	<p>Divide the group into two halves. Half of the children represent trees and stand about 20 metres from each other. The remaining children have to walk between the "trees", holding their breath until they reach a tree.</p> <p>The game leader then starts to cut down and remove the trees. This makes it more difficult for the children to move from one tree to the next still holding their breath.</p> <p>By the end of the game they will have discovered that trees are important to help us to breathe!</p>
Comments	A simple but effective way of helping young children to learn about one of the vital roles of trees whilst using some of their own energy!
Suggested by	Rupert Aker, Soil Association

Wind Pollination

Topic/s	Flowering plant reproduction
Purpose	To show the tactics used by wind pollinated flowers
Materials required	Pepper pots, flour shakers or similar containing flour mixed with powder paint Stylised flowers cut out of card with centres covered with double-sided sticky tape
Space required	Outdoor space
Instructions	<p>Give the pepper pot to one member of the group who stands a short distance away from the others. The remaining members of the group are each given a flower.</p> <p>The child with the pepper pot now shakes it vigorously. The other children cannot move from their position but can wave their flower to try to catch some “pollen” from the pepper pot.</p>
Comments	<p>Try out your pepper pots first to check the holes are of an appropriate size to make sure the coloured flour mixture neither clogs up the holes nor covers the children!</p> <p>Vary the game by placing the children in different places so they learn that the wind-blown pollen does not reach all flowers.</p>
Suggested by	Becki Pulford, Moulton College

Woodland Words

Topic/s	Environment and literacy
Purpose	To encourage closer observation of wildlife in a woodland.
Materials required	Letters on cards which ultimately spell out a relevant word. Additional artefacts and interpretation boards may be used.
Space required	An area of woodland
Instructions	<p>Cards or boards bearing letters are placed at points of particular interest within the woodland. For example the letter B can be positioned beneath a Beech tree or the letter M next to a woodpile housing Minibeasts.</p> <p>Encourage the group to look carefully in order to find the various letters and to identify the interesting features they are next to.</p> <p>Once all the letters are collected, the children try to order them to form a new woodland word.</p>
Comments	<p>At each of the points where the letters are located, additional interpretation or activities can be carried out. The Flora Britannica by Richard Mabey is a useful source book.</p> <p>If the item you wish to highlight is not evident (e.g. badger) you can use an artefact in its place.</p>
Suggested by	Andrew Davies, Lackham College



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