

Food Chains

KS1 / KS2 Group Leaders



Curriculum links

Science - Living things and their habitats - classifications and reasons for classifications.

Bug hunt - Will catch and identify invertebrates and work out where they fit in the food chain

Habitats - Where were different bugs found and why

Art and design - Create sketch books to record observations



Learning Outcomes

To understand the way in which plants and animals represent feeding relationships in a habitat and that food chains start with a plant.

Introduction

The pack is suitable for use with a maximum of 30 pupils divided into up to 5 groups. In the resource box there are:

- Instructions showing how to use the activities.
- Materials and equipment for 5 groups and their leaders.
- A risk assessment for the site and the activities in the pack.
- A checklist of contents.

KEYSTAGE

2

Activities



Bug hunt and drawing

Web of life

Foxes and rabbits

Build a food chain

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Using the Site

Please begin your visit with a talk about using the site, using the text below if you wish.

Wildlife sites like Hagge Woods are home to many animals, plants and insects and you will meet some of them on your visit, please treat them with respect.

Human visitors, like you, come to enjoy the site as well, so please keep everything as you found it.

When you have completed an activity, please try to put everything back as you found it, e.g. scatter leaves you have picked, discreetly.

There is a pond at the far end of the site.

Please do not go too close, unless you are with an adult.

Most of the young trees are marked by canes.

Please be careful you don't get poked in the eye by a cane, and make sure you do not stand on the young trees.

The wood is fenced, make sure you stay within the fenced area.

Checklist

Resources

- Build a food chain
- Foxes and rabbits
- Web of life
- Invertebrate tally

Equipment

- Food chains cards
- 4 ribbons of one colour
- Ribbons of a different colour for remaining participants
- 4 corner markers
- 40 'food' items eg bean bags
- Balls of string
- Dustpan and brushes
- Magnifiers
- Opal bugs count pocket ID guide

Supplied by school

- Extra A4 paper

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Build a food chain

There are six sets of five cards which can be used to make a food chain. Divide the group up into six smaller groups, each with a set of cards. The idea is that each participant takes a card and then the groups need to work cooperatively to work out the correct order to stand in to show the relationships between the organisms. Finish with a feedback session where each group explains the order that they have made. Now start to consider what animals and plants you might find in the site and where they might fit in a food chain.

The order of the sets of cards is as follows:

Sun, grass, rabbit, dung beetle, fox

Sun, leaf litter, worm, blackbird, sparrow hawk

Sun, oak tree, caterpillar, robin, kestrel

Leaf litter, woodlouse, hedgehog, fox, carrion crow

Sun, dandelion, snail, thrush, fox

Dandelion, slug, frog, grass snake, jay

Bug hunt

Give each group of about three pupils a small dustpan and brush, magnifying pots, the Opal Bugs Count Pocket ID, and an Invertebrate Tally sheet. Gently brush plants, and the bugs will drop into the dustpan, tip into the magnifying pot. Be careful pupils do not handle any bees or wasps as they could get stung. Pupils can also lift and look under items where they will find creatures such as woodlice, which they can catch. Pupils should make a tally of the bugs they find on the sheet, try and record where they found different 'bugs', and as a group consider why they might live in different habitats. The mouthparts tend to give a clue as to what the bug eats. See if the pupils can put bugs into some kind of food chain, based on the Wood-Meadow. This could include birds, or other creatures eating the bugs. For instance, green fly which eats grass is eaten by a ladybird, which is eaten by a spider which is eaten by a swallow. Ask them the difference between carnivores and herbivores, and what they think humans are called (mostly omnivores!). Finish the activity by drawing some of the bugs. Try and draw them so each bug fills a side of A4, and they will look like science fiction creatures! Display all the drawings back at school.

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Foxes and rabbits

Equipment: 4 scarves of one colour, scarves of a different colour for remaining participants, four corner markers, 6 hula hoops, 40 bean bags

For this game, you need coloured 'tails' to denote foxes and rabbits that can be tucked into the back of the waistband. Ribbons are ideal for this or you could use something like P.E. bibs in two different colours. Mark the boundary of the play area with the four markers, the area should be about 20mx20m, but this is not critical. Divide the participants into two groups, the foxes and the rabbits. If you have 30 participants there should be four foxes and 26 rabbits. The foxes tie their ribbons around their upper arm (or wear a P.E. bib), the rabbits tuck their tail into their waistband or back pocket.

Line up all the rabbits at one end of the playing area. At the other end of the area, scatter the "food". The foxes begin the game ranged throughout the playing area.

In order to survive, each rabbit must collect three items of food. However, they can only take one from the far end of the playing field at a time, and make it back to their starting point before returning for a second or a third. The foxes need to tag two rabbits and collect their ribbons in order to survive. "Dead" rabbits sit on the sidelines until the end of the round. In order to cross the playing area to get to their food supply, the rabbits will have to be crafty! They can avoid being tagged by the foxes if they "freeze" (they must stand as still as possible); the foxes cannot "see" frozen rabbits and must ignore their presence (e.g., no guarding frozen rabbits!). Each round of the game lasts 5 minutes. This will help encourage timid rabbits to come out of their hiding places in search of food... because if they don't have enough at the end of the round they're dead!

At the end of the game, or several games (with foxes being rotated), you can have a discussion about the amount of food. There was never enough food for all the rabbits, so inevitably some 'die, and likewise, it's unusual for foxes to catch enough rabbits, so some of them will 'die'.

Adapted from Project Wild, Ontario Ministry of Natural Resources.

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Web of life

Location: Any flat area, free from trip hazards

Equipment: Balls of string

Divide the group if necessary, so that you have groups of 10-15 people. Each group should then stand in a circle.

One person starts off with the ball of string - they choose to be an animal or plant (perhaps something they've seen in the wood, or on a farm etc.) for example a greenfly. Somebody across the circle is asked to think of something which the greenfly is connected to, something that eats it, or is eaten by it, for example, a ladybird. The greenfly keeps hold of the end of the string, and throws the ball across the circle to the ladybird. The ladybird has to find someone else in the circle who can make a connection to them, e.g. a blue tit. They keep hold of the string, and throw the ball - so that gradually a 'web' is created linking everybody in the circle. Keep the string taut, people may have to pull back slightly on it

Then explain that something has happened to affect one of the players in the circle - it may be that somebody has decided to chop down a particular tree, spray the greenfly or take some other 'action'. The player affected is asked to 'die' sitting down or falling and pulling on the string. Ask the players if any of them felt that 'pull' on the string - two other players should have done. See how they will be affected by what has happened - these players 'die', and so more feel the tug. Continue until all the circle has felt the string 'pull'.

If the group needs prompting for species, here are some ideas; Ladybird, Wasp, Bee, Bluetit, Barn Owl, Grass Snake, Thrush, Vole, Heron, Tadpole, Greenfly, Frog, Grass, Flowers and Tree buds. You can also use things such as sunshine, air, soil and water - these will be linked to almost everything else.

Adapted from 'Games, Games, Games' Woodcraft Folk, Oxfam Education.