



Herts and Middlesex



Wildlife Watch

Blue Tit Survival Game

Background information

Although we regularly see blue tits in our gardens they are primarily a woodland bird, making their nests in holes and cracks in trees. They feed on caterpillars, insects, seeds and nuts and in the springtime rely on the abundance of newly emerged caterpillars to feed their young.

Activity objectives

This game aims show how a number of factors affect the survival of a species and its ability to reproduce successfully. Habitat destruction, predator/prey relationships, disease, weather and pollution can all affect wildlife populations over time. Some of these are natural factors but others are man-made. It is these which we can do something about – for example restoring damaged or lost habitat. The children should learn that:

What you will need

1. The class or large group
2. An open area in which to play the game – this could be indoors but better outside and better still an open area in a woodland to get them thinking about the game in real terms.
3. Printed out record sheet (see additional sheet)

** Use this to record the results of each round – this could be allocated to a different child each time to fill in and discussed at the end of the session.

- Good habitat is key to a population's survival
- Populations will continue to increase until limiting factors are imposed – i.e. when there is not enough food for the whole population
- Limiting factors contribute to fluctuations in wildlife populations – i.e. as prey species increase, so will the predators that feed on them, but once the predators have reduced the prey population, the predator population will then decrease allowing the prey to increase again. This is a natural predator/prey cycle.
- Nature is constantly changing!



Now turn over...



and play the game!





Blue Tit Survival Game

How to play

1. Split the class into four evenly sized groups and allocate each one a category. One group will be blue tits and the other three will represent the things (habitat factors) that all blue tits need to survive:

- Food (caterpillars and other insects)
- Water (for drinking and washing)
- Shelter (their nests)

2. Each group should identify themselves in the following ways:

- Food – hands on their stomachs
- Water – hands over their mouths
- Shelter – hands on their heads

3. Send the blue tits to one end of the playing area and get the other three groups to mix themselves up and stand at the other end.

****** Make sure they remember what they are and keep their correct hand signals!

4. All players start with their backs to each other. One person (a teacher/assistant) calls out one of the three habitat factors that the blue tits have to find – “water”, “food” or “shelter”.

5. When the factor is called all players turn around and the blue tits have to quickly find the correct habitat factor to pair up with.

****** Habitat factors cannot be shared, only one blue tit to each habitat factor!

****** Make sure you end the round before the habitat factor is used up!

6. The blue tits and paired habitat factors now all become separate blue tits in the next round.

7. Any blue tit not paired up or paired up with the wrong habitat factor “dies” and becomes part of the habitat group.

****** Allocate habitat factors to recycled blue tits before the next round.

8. Play about 10 rounds of the game recording the numbers of blue tits at the start and end of each round. Change which habitat factor the blue tits need to find in each round.

9. After 10 rounds introduce a predator – the sparrowhawk and reduce the water, food and shelter. Any blue tit left missing a habitat factor or left with a sparrowhawk “dies”. Record how quickly the blue tit population declines now.

****** Sparrowhawks are a native species and naturally predate on a variety of small birds.





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Follow up

1. Gather the group together to discuss the results and ask why this happened.
2. Discuss what blue tits need to survive and what we could do to help such as protecting our woodlands and providing nest boxes.
3. Plot the results on a graph to show the population fluctuations and decline as habitat factors get used up and predators are introduced.



Information for Teachers

National Curriculum Links

Y1 POS Identify and name a variety of common animals (use the local environment to answer questions about animals and their habitats).

Y2 POS Describe how different habitats provide for the basic needs of animals, (introduce the idea of 'habitat' and 'microhabitat' and observe how living things depend upon each other). Describe the basic needs of animals for survival.

Y3 POS Animals need the right amount of nutrition, they cannot make their own food, they get nutrition from what they eat.

Y4 POS Recognise that environments can change and this can sometimes pose dangers to living things.





Blue Tit Survival Game

Results Table photocopy this page for extra rounds if required

Round	Factors (number of each)	Number of blue tits at start	Number of blue tits at end
	Food= Water= Shelter Sparrowhawk*		
	Food= Water= Shelter Sparrowhawk*		
	Food= Water= Shelter Sparrowhawk*		
	Food= Water= Shelter Sparrowhawk*		
	Food= Water= Shelter Sparrowhawk*		

* Sparrowhawk if present for this round

