



# Habitat Game

**Aim:** To simulate the effect on biodiversity as population increases

**Time:** 15 min

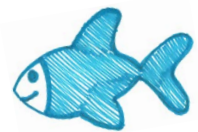
**Best for:** Year 3-7. Links with Science, Geography, Maths and Sustainability.

## Equipment/Requirements:

Tarps, towels, drop cloths, hoops or mats to represent habitat and corridors

Grass area or safe area for students to run around

Sashes/bibs to identify foxes and cats



## Activity:

Lay out several large tarps, towels, drop cloths, hoops or use skipping ropes or string to mark patches that represent habitats. To begin with, large areas should be shown, with corridors between sections.

Tell students that they are native animals (students can pick animals or you can assign animals native to the area). Ask if students know what we call places where animals and plants live ('habitat'). Explain that the areas marked on the ground represent their animals' habitat. Each student selects a patch as their home. Each 'patch' can only hold five students. On your instruction, students move from patches of habitat, pretending to look for food, shelter, mates, water, etc. They can use the corridors or open space to move around. They cannot spend more than 5 seconds in one patch.

When you yell 'Habitat!' all students must stand within their patch of habitat. Any students left outside the habitat after three seconds are out of the game (they have perished because they couldn't find a safe place to live). This represents the local area about 300 years ago - there were plenty of resources and places to live.

Fold over the sheets, remove hoops or move the ropes to reduce the size of habitat available. Remove a corridor. Explain that this represents settlers moving to the area and cutting down trees. Play the game again. Discuss the changes (e.g. more students can't find habitat in time).

Reduce the size of the habitats again (some habitats will no longer be connected to others - this represents 'habitat fragmentation'). More land is cleared to build towns, roads, farms, etc. Feral animals are introduced. Pick two students to be a fox and a cat (you can use sashes to identify them). Play the game again, but this time, any students outside the patches of habitat or corridors can be caught by the fox and cat as they move around. Students caught are out of the game. Ask what the students noticed this time. Discuss the role of corridors that join the patches together.

Reduce the size of habitats again (patches should be very small now, with few or no corridors joining the patches). This represents the landscape today - only small patches of native habitat remain. Play the game again. What happened?

Why can you only have a certain number of animals in each patch?



## Questions:

- Why did the habitat disappear or get smaller?
- What happened to the animals caught outside the habitat?
- Why do animals need big patches of habitat?
- How do corridors between the patches of habitat help animals?
- What are people doing to increase the size of habitats now?
- What can you do personally to help look after habitats?
- Is it better to have a few large patches of habitat or lots of small patches? Why?
- Why is conserving habitat important to humans?



## Take action

Discuss ways students can protect or rehabilitate habitats. Students select an achievable action and undertake a project to improve the natural environment e.g. revegetation, reducing use of paper, starting a recycling program at school.

## Curriculum links

	Year	Content Descriptions
Science	4	Living things, including plants and animals, depend on each other and the environment to survive (ACSSU073)
	4	Earth's surface changes over time as a result of natural processes and human activity (ACSSU075)
	4	Science knowledge helps people to understand the effect of their actions (ACSHE062)
	6	The growth and survival of living things are affected by the physical conditions of their environment (ACSSU094)
	7	Interactions between organisms can be described in terms of food chains and food webs; human activity can affect these interactions (ACSSU112)
Geography	4	The importance of environments to animals and people, and different views on how they can be protected (ACHGK022)
	4	The natural resources provided by the environment, and different views on how they could be used sustainably (ACHGK024)

\*Links can be made to the Maths curriculum if you collect data about the 'animal' numbers and discuss the results.

## Resources

Help a Habitat

<https://schoolsequella.det.nsw.edu.au/file/d09c592f-e036-495d-9822-ba4978f3b740/1/12808.zip/index.htm>

Habitat Heroes

[www.habitatheroes.com](http://www.habitatheroes.com)