HABITAT HOOPS

Background to the game

This game was devised to take participants beyond the phase of 'just planting trees' to help the environment. Rather it encourages them, and in many instances introduces them for the first time, to some broader landscape concepts such as habitat destruction, fragmentation and some of the threats and issues facing native plants and animals as a result of these. Once participants understand these concepts and threats they can then begin to view the landscape somewhat differently and may see alternative ways of addressing them at a local scale

The game is hands-on, lots of fun which means that participants, both adults and kids alike, don't even realising they're learning!

Equipment required:

- An oval or large grassed area the flatter the better for safety reasons
- 12 large hoola hoops of different colours
- Whistle or very loud voice
- Animal cards
- A3 size aerial maps of your local area
- Props to introduce threats such as flames for fire, hard hat for land clearing, house for urban development

Optional extras

- Some rope or similar material to use for constructing corridors between hoops

Good luck and enjoy.....this could take you to lots of places you didn't anticipate

Links to Curriculum Framework

Science Learning Area Outcome	Health and Physical Education Learning Area Outcome	Society and Environment Learning Area Outcome
Life and Living	Skills for Physical Activity 1. Movement Skills 2. Activity and game strategies	Natural and Social Systems 1. Natural Systems

Value: 5. Environmental Responsibility
5.2 Conservation of the environment
5.3 Sustainable Development
5.4 Diversity of species

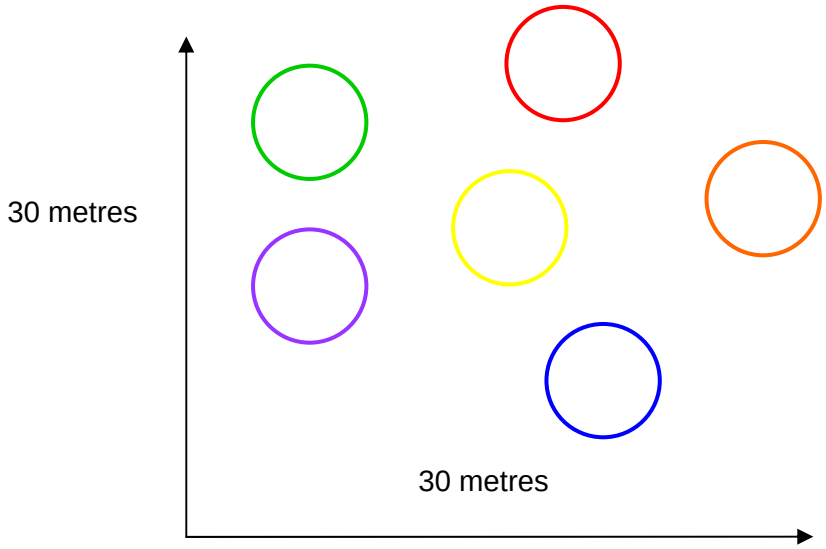
Objective of the game:

To get participants thinking about the habitat requirements of plants and animals and how these have been and are threatened by a range of processes, both natural and human induced.

At the end of the game participants will:

- Have a greater understanding of predator/prey relationships
- Have a greater understanding of which species of bird are vulnerable within urban bushlands
- Appreciate some of the difficulties faced by some species to move through landscapes.
- Know more about the threats to biodiversity
- Understand more about the concept of fragmentation and how it is a threat to biodiversity
- Understand the importance of wildlife corridors in suburban areas and how they act as faunal freeways
- Understand the management techniques used in these urban bushland fragments.

1. **Setting up the game**
    - Set out the hoops within an area of approximately 30m x 30m. The area will depend on the group size, as will the number of hoops.



    - As a warm up, start by playing tag between the hoops. At least one foot inside the hoop means you're safe from 'it' and can't be caught. 'It' can only tag no rough play.
    - On the whistle, participants must change hoops and try not to get tagged.

2. **Post warm up**
    - Divide all participants, except two, into small groups and give each group an animal card. On the back of this card is a description of how they must move (i.e. move slowly with one foot placed in front of the other, skipping, running). For their own self-preservation, they shouldn't tell anyone else what they are.
    - The two spare participants will act as predators but they shouldn't tell the others and blow their cover! Give them a predator card which explains their role. Once they have tagged someone they must count slowly to 10 before devouring the next prey.
    - Now, as a final practice before the real game begins, get the various animals to role play the way they have to move in the game. Same rules as before...one foot in the hoop means you're safe etc. Explain to them that you'll be watching carefully to make sure that they stay 'in character'. No predators yet!
    - While they are doing this the predators should watch the group to see how they're moving and which ones they might try to get first. They will get their chance soon.

3. **Playing the game**
    - Explain to all players what the hoops represent (i.e. a source of freshwater, important habitat to live in, a favourite type of food). Or alternatively ask them for their ideas about what they represent
    - Point out to the group that for their needs to be met, they may need to move between these islands, but you decide when to do this. However, you must abide by the description on your card.
    - Blow whistle to allow for movement. Do this 2 or 3 times before introducing the predators. Point out to the group that "somewhere amongst you there are some predators that can tag you and eat you if you don't have one foot inside a hoop". If they get tagged then they're out of the game and need to sit out.
    - Blow whistle again to stop. *What's beginning to happen?*

4. **Discuss what happened**
    - *When the whistle went what choices did you have?*
    - Answers could include staying put, move to nearest island, move to any island not near predator etc.
    - If some didn't move from their hoop, ask why? *What implications does this have for them over time?*
    - Did they get where they needed to go? If so why, if not why not?

5. **Introduce some pressures.**

Play the game again but this time add some threatening processes

1. A developer ploughs through one of the patches and establishes a fictitious housing development (ie Verticordia Heights).
    - *What has this potentially done to the species in this patch?*
2. A fire goes though a neighbouring patch.
3. Feral bees are introduced to another patch.

- *What pressures are now placed on species, including predators?*

6. Introduce the concept of movement of species

- Larger animals travel greater distances (cockatoo compared with a wren)
- Smaller animals travel less distance (honey possum compared with a possum).
- It is also important to point out, that different plants and animals have very specific habitat requirements so we cannot assume that any piece of bush will do.

7. How can we help species move through the landscape?

Put the question to the group *"What could we do to help you get between the islands/hoops?"*
Answers might include:

- Get rid of predators
- Create more islands, if so add some more and see what happens
- Connect the islands, if so add some people as connectors to see what happens. (Initially add one connector per group, these can move about and join up by holding wrists to form a chain. Once the chain protects the critter the predator can't get them. Connectors then got to help another critter to move). You could also use rope to symbolise the corridor.

Reality check

Predators can and do move along corridors, corridors don't move throughout the landscape like this.

Discussion points

- What happens if everyone goes to the same hoop? What happens to the resources?
- Discuss the relevance of the different animals groups. Which might be the most vulnerable? In many ways this depends on the threat.
- Just because a whistling kite is a predator of these smaller birds, do we need to get rid of them?
- What's the difference between, and therefore the problem with, an introduced predator such as a cat and a native predator such as a raptor?
- Roads and cars: a different form of predator. Difficulty of getting across them if not a strong flyer or rely on ground movement.
- Fire: Habitat may be lost to many species for some time. If burnt too often some species may not recolonise due to specific habitat needs.

USE OF THE AERIAL MAPS

The aerial maps are a great tool to get participants looking at the real landscape and seeing real 'hoops' or patches of vegetation, wetlands and bush. They can then also begin to see some of the things that have lead to the fragmentation of bush with the landscape

- Roads
- Shopping centres
- Industrial estates
- Housing development and so on

1. Have students look at the aerial photograph to familiarise themselves with it by identifying local spots such as:
    - A local reserve
    - Their school
    - A major road and so on

2. Ask them to identify some of the 'habitat hoops' they see on the map. From aerial maps it often looks like there's plenty of vegetation left in the landscape. But the **structure** of this habitat in the landscape is also important. Shrubby, prickly understorey habitat is required by smaller animals for protection.

3. Ask the question "*When you were playing habitat hoops what was used to represent stepping stones or areas of urban bushland?*

    The remaining patches that weren't cleared became patches of *urban bushland.* They are extremely important as they can help keep the wildlife in our urban areas

4. Now let's work backwards. Ask the students to think about what the landscape would have looked like before this fragmentation occurred (ie pre settlement). Get them to collect up the hoops and then use them to demonstrate how the landscape might have looked. They may come up with some amazing ideas one of which may be that all the hoops are next to each other, interlocking and so on. The vegetation would be continuous across the landscape, including wetlands within this.
    - What implications would this have for the flora and fauna? (They are able to freely disperse to suitable habitat and food sources).

Final Thought
Put it to the participants…

Get them to locate their school/home and their nearest patch.

Ask the question:
In order to create a wildlife corridor between your school and the patch what do you have to take into account? What are the impediments to creating this corridor?

A project for further action might come out of this for them to work on.