

Title: Penguin Pathways – Plight of the Little Blue

Theme: Animals are affected by human activities.

Objective: To learn about the daily life of a Little Blue Penguin and understand how human activities are affecting them and what we can do to reduce our impact.

Focus Question: Penguins are a non-threatened species so do we need to manage them? If they stop nesting at our local beach as a result of human disturbance do we need to worry – or will they just move somewhere else?

Background Information:

NZ is often referred to as the penguin capital of the world because we have more penguin species on our shores than any other country. Three species breed on the NZ mainland (Yellow-eyed, Fiordland Crested and Little Blues). Little Blue (Fairy) is the smallest penguin in the world (25 cm tall, ~ 1 kg weight).

Penguins go to sea to feed (fish, krill, squid, marine invertebrates). They return to land to rest, incubate eggs, nurture chicks or moult. During the non-breeding period they can make long foraging trips of more than 70 km. Penguins feed their young by storing fish in their stomach and regurgitating it.

Penguins don't fly in air (flightless) but they fly underwater, using their wings like flippers. On land they walk upright. Little Blues only come ashore under the cover of darkness and live underground in burrows year round. Little Blue Penguins breed from September to May. Nests are built around July, the eggs laid in August and the chicks hatch around September.

Materials:

Chalk (if working on pavement), masking tape (if working on carpet), children (any number will do)

Rules:

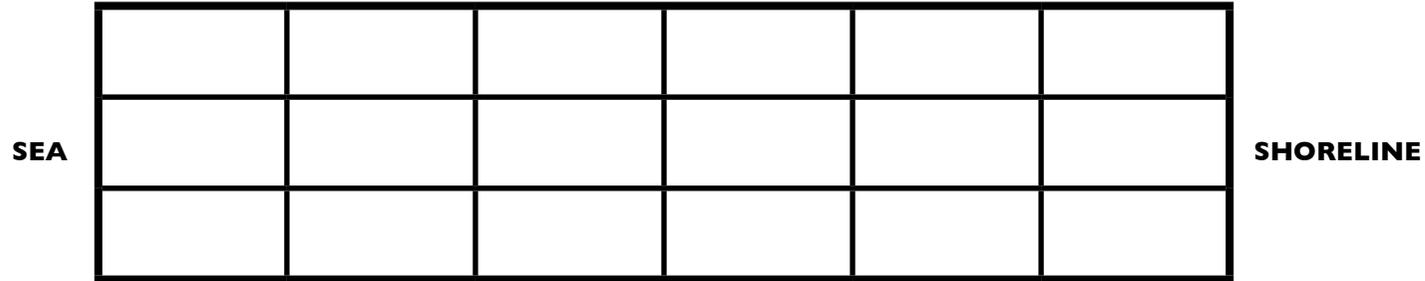
Children need to cross from shoreline to the sea and back without stepping on gridlines. If a square on the grid is crossed off, the children need to use other squares to go around or jump that square. If a child steps on a line or crossed off square, he/she is out and watches the rest of the game. Game is stopped when no one can cross without touching the gridlines. A discussion follows.



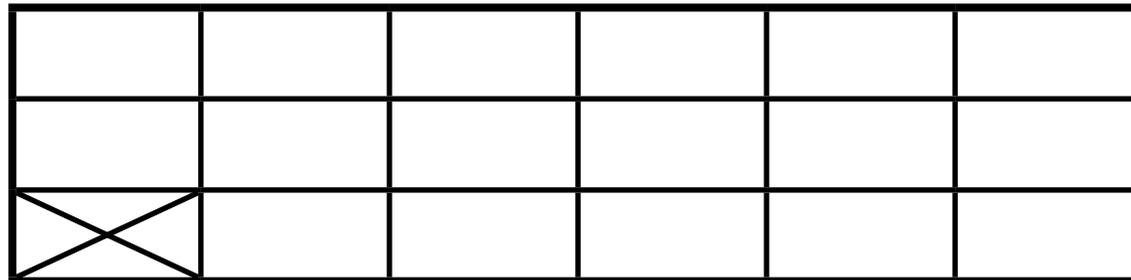
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Methods:

1. Mark three lanes on the floor (size and distance will depend on the number of children and the area available).



2. Children become Little Blue Penguins. They have nests in burrows along the shoreline and go out to sea to catch fish to eat. Have the children practice walking like a penguin on land (upright) and swimming like a penguin in the sea (using flipper-like wings).
3. The game begins with the children on the shoreline in their burrows. (It is an early September morning, and the penguins need to go out to sea to catch fish for the chicks. Children need to move from the shoreline to the sea, without stepping on the lines or jumping squares. They return at dusk to the shoreline to feed the chick. Repeat the dawn / dusk movement from shoreline to sea 2 or 3 times.
4. This area is a favourite place for cats and dogs to wonder. However, these animals can easily catch and eat a penguin. Cross off one square in grid. Children are not allowed to step in that square. Have the children go to sea and back avoiding the crossed off square.



5. New restaurant is built near the shoreline colony. Burrows are removed and there is less suitable habitat for new burrows to be made – so the area available for nesting slightly is reduced. Cross off one square in grid. Have children go to sea and back again avoiding crossed off squares.
6. The new restaurant serves evening meals, so the number of cars driving through the nesting area after dark increases. Penguins are now at risk of being hit by a car. Cross off one square. Commercial fishing in the area has increased – less food for the penguins, cross off another square.
7. The number of stoats, rats and ferrets in the region has increased –they like penguin eggs and chicks. Cross off one square.
8. A slight warming of sea temperatures in the past 50 years is thought to have forced vital food species, such as krill, further south making it harder for penguins to find. Cross off one square.
9. Recreational fishers have put up gill nets in the harbour. Little Blues get caught in nets. Cross off one square.
10. Spills of light fuel oil from fishing boats' engine-room bilges can coat the penguins' feathers and prevents them from insulating properly. Cross off one square.
11. Sharks and sea lions seen in the region – both have been known to eat penguins. Cross off one square.
12. A tourist guide highlights the area as a good place to view Little Blue -Penguins. The number of people on the shore when penguins are arriving increases. Cross off one square.
13. New building project in town, rocks and rubble being dug up at the site and is being dumped on the shoreline near the penguin colony. Penguins now have trouble climbing up the shore to their burrows. Cross off one square.
14. Add your own obstacles a penguin might encounter.



Discussion:

1. How many of the threats were natural? How many were man-made?
2. Why is it important that we do not prevent penguins from moving freely between their burrows and their feeding ground?
3. Is there any action that we could take that would decrease the number of obstacles that penguins face during their daily lives?
4. Erecting signage advertising penguins are living in the area probably increases the number of people visiting. If there were no signage would fewer people be aware of their presence resulting in lower visitor numbers? Or would the lack of signage increase the disturbance because of peoples' ignorance (lack of awareness of how to view penguins or avoiding stressing them)?
5. Road to Pilots Beach is chained off each evening before dark to prevent vehicles driving in areas where the penguins are walking. Why not prevent vehicle access at all times? There are no penguins on view during the day, so driving a car down in daytime is no problem unless the visitors bring a dog. Whose needs should be considered first – the wildlife or the visitors? This is a recreation reserve so this is a tough question. For the wildlife to come first the status of the reserve would need to be changed.
6. The restaurant at the Royal Albatross Colony attracts more people to the headland at the end of the day – what impact could this have on the birds? Do you think the penguins were considered when the restaurant hours were extended?
7. Do you think people come to view the wildlife to enhance their awareness of biodiversity, conservation and the natural environment? Or do you think they come just for the photo opportunity and to give them another thing to tick off their list and boast about?
8. Do you think penguins provide information about the health of the marine ecosystem? How?
9. Should the viewing of Little Blue Penguins in NZ be set-up as it has been in Oamaru, where they have a large grand stand, people are charged an entrance fee and a guide supervises the public's activity and provides information about the birds. But, people complain about always having to pay and are more inclined to seek out non-paying ways of viewing, thus putting other wildlife refuges under pressure.
10. Little Blue Penguins are a non-threatened species so do we need to manage them? If they stop nesting at Pilots Beach as a result of human disturbance do we need to worry – or will they just move somewhere else?



Additional Resources:

www.penguins.co.nz

www.seaweek.org.nz

www.marine.ac.nz

www.school.albatross.org.nz

www.doc.govt.nz



One Ocean - It Starts with me
Kotahi Moana - Ka Timata Mai I Ahau



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~~**Dogs &
Cats**~~

**Stoats, Rats
& Ferrets**

New

Restaurant

Busy

Road

Sharks &

Sea lions



Busy

Road

~~Ocean~~

~~Warming~~

~~**Commercial
Fishing**~~

~~**Gill Nets**~~

Oil

Spill

~~**Tourist
viewing**~~