

Primo Penguins!



Learning Objectives

Level One and Two Living World

Life Processes: recognise that all living things have certain requirements so they can stay alive

Ecology: recognise that living things are suited to their habitat

Level Three and Four Living World

Ecology: explain how living things are suited to their particular habitat and how they respond to environmental changes, both natural and human induced

Learning Outcomes

By the end of the session the students will:

- Identify common characteristics of a penguin
- Recognise that there are several species of penguins and that they all live south of the equator
- Compare sizes and physical characteristics that distinguish one group of penguins from another group of penguins
- Describe how penguins gather food, feed their chicks, move/swim
- Identify predators including human impact on penguin survival

Key Competencies

Thinking – sharing ideas

Managing Self – showing respect to others through listening and taking part

Relating to Others – working with others in a group to complete activities

Participating and Contributing – taking part in activities

Using Symbols, Text and Language – using photographs to discuss ideas

Resources

- Photos of each species of penguin
- Picture of penguin and characteristic cards
- "Clothes" for penguin dress up
- World Map showing areas where penguins live
- *Seaworld* Penguin Cards (separate document) with extra sets of penguin pictures (to scale and names on back to make it easier) for map activity
- A penguin grows up – life cycle pictures
- Photos of penguins moving/swimming etc
- Predator and non predator photos
- Powerpoint and YouTube clips of penguins

Lesson Format

Introduction (2 mins)

Have the children sit in pairs facing each other. Give them **one minute** to “seesaw” – taking turns – to share everything they know about penguins

Eg Child 1 – they are birds

Child 2 – yellow eyed penguin is also called hoiho

Child 1 – don't fly etc

Characteristics of Penguins (5 mins)

- *Have waterproof feathers (the feathers are stiff, short and grow close together. These feathers grow over a thick coat of fluffy down)*
- *Warm blooded*
- *Thick layer of blubber or fat right under their skin (blubber keeps them warm and is insulation from the cold snow and icy waters they swim in)*
- *Black back and a white belly (This is called protective coloration or camouflage. When a penguin floats on its belly in the water their enemies, such as a leopard seal or the killer whale cannot see the penguin. This is because when the predator looks up through the water it cannot see the penguin because the light shining through the water makes everything look white. The black coloring on the back and head also helps the penguin soak in the warmth from the sun)*
- *Long, flat flippers that help them swim and dive for fish, squid, and krill*
- *Very short legs that are set far back on their lower body*
- *They stand upright and waddle when they walk*
- *Lay eggs*
- *Don't fly*
- *Hooked bill/beak and barbs on their tongue/in throats to help hold onto slippery fish*

Option 1

Display a large picture of a penguin on the board.

Ask children to share what they think makes a penguin a penguin.

Have each characteristic label to place on/around picture

Option 2

Ask for a volunteer to help teach the others about the characteristics of penguins.

With each characteristic, add a piece of “clothing” to the child (blubber, feathers, flippers, short legs) and conclude with them having to waddle

Species/Habitats (2 mins)

Penguins are found in many different habitats, or places. They live from the frozen land of Antarctica to the sandy beaches of Africa. Penguins have adapted to more habitats and climates than any other animal in the world.

Using a world map show students where penguins live – emphasising south of the equator (pg 6 and 7 National Geographic Kids Penguins)

Explain that in the next activity they will have the chance to see which penguins actually live in these places

Comparison of sizes and physical characteristics (10 mins)

There are 17 different species of penguins and while they similar characteristics there is a variety of sizes and differences in their appearances.

Select 2 or 3 penguin photos to display and explain

Eg King penguin is 94cm and has a vivid orange, teardrop shaped ear patch, closed off from the white chest

Students to be in groups of 4

Hand out Seaworld Teachers Guide Penguin Cards for each group

Allow students a few minutes to look at the different species before they determine

- ✓ Which is the tallest penguin?
- ✓ Which is the heaviest penguin?
- ✓ Which is the most numerous penguin?
- ✓ Which is the most *endangered* penguin?

In addition, supply each group with a map of the places penguins are found and have them place the penguins picture cards on the map (some penguins can be found in more than one place)

(May work best if you hand out maps during this activity rather than before as some children will get preoccupied with the map and forget to find out about the different species)

For younger children (still in small groups)

Use the photo cards of each penguin species for the children to talk about what they look like

Work as a whole group to put the penguins on the world map with children volunteering to put penguins on the map

How penguins live (5 mins)

Using the link below (A Penguin Grows Up) or another suitable resource briefly cover the cycle of egg, hatching, keeping warm, feeding and adulthood

<http://teacher.scholastic.com/lessonrepro/reproducibles/penguingrow.htm>

Like all birds, penguins lay eggs and they each have their own mating habits. Penguins form a bond between a male and female. The eggs are cared for by both parents in some type of nest made out of rocks, pebbles, sticks, anything they can find.

Penguin chicks are covered with a thick layer of warm fuzzy, brown feathers called down. This down keeps them very warm. The male and female both care for the chicks by bringing back food to them in their stomachs. The chicks recognize its parents' sound and will go to them.

Share some photos with the children of penguins moving while sharing the information below

Penguins are amazing swimmers. When penguins float they use their flippers to paddle through the water. When they dive and swim they use their flippers to fly through the water. They use their flippers for swimming like other birds use their wings for flying. Most penguins can dive very deep and can hold their breath for many minutes. They have large round eyes that help them to see in the dark water. Penguins can swim up to hundreds of miles in search of food. Penguins move over land by walking, jumping and sliding. Penguins that live on the ice can slide or go tobogganing on their bellies down hills and slopes. They lie down and push off with their flippers and slide across the ice. Penguins are also good jumpers. They can jump the height and width of their own bodies. They often hop or jump over rocks or holes.

Predators/Human Impact (5 mins)

Children to be in groups of 4.

Have a selection of photos that include penguin predators and other animals that are not of danger to penguins. Children are to group these according to whether they believe the picture is of a penguin predator. Walk around talking to the groups about their choices. Share with the children which ones were the predators.

Penguins have several animals that hunt them for food. These include the large sea birds like the skuas, gulls, sheathbills, and petrels. These large birds will steal eggs and chicks that are not guarded. Penguins are also in danger when they are in the water. They are often attacked by sea leopards, killer whales, fur seals, seal lions, and sharks. The leopard seal is the greatest threat. It hides and waits in the water just under the ice and catches the penguins when they jump in to hunt for food. The penguins are an important part of the food chain in their habitat.

One hundred years ago millions of penguins were killed for the oil in their bodies. This oil was used for lamp fuel and for paint. Today penguins are not hunted and their habitats have been developed into Wildlife Preserves. Even though penguins were hunted in the past most kinds of penguins are very numerous. Some colonies have one million mating pairs. One threat to the penguins is pollution from oil spills. Also global warming is causing damage to the ozone layer over the Antarctica. This is decreasing the amount of food for them in the ocean. A decrease in their food supply could cause a decrease in the number of penguins.

Conclusion (2 mins)

Turn to the person beside you and tell them 3 things you now know about penguins

Tour

Focus is on the blue penguin

Consolidation Activities

Read I am a Penguin by Barbara Todd

This is a nonfiction book but written in rhyme to teach children about penguins



Use Marineland/Aquarium powerpoints to show photos of different penguins – see if the children can name them

Show suitable YouTube video clips

Eg <http://il.youtube.com/watch?v=Pi3PjUw6nCc&feature=related>

Thinkers Keys activities (see end of document)

Book browsing – have a selection of penguin related books for the children to look through. Give them a timeframe (5 mins) to find 2 pieces of information to share with a partner.

Art activities

Black and White Buddy (separate document)

<http://www.dltk-kids.com/animals/ppaperpenguin.asp> (instructions)

http://www.dltk-kids.com/t_template.asp?t=http://www.dltk-kids.com/animals/image/bpaperpenguin.gif
(template)

Dot to dot http://www.coloring.ws/t_template.asp?t=http://www.coloring.ws/animals/penguins/15.gif

Wordfind

http://www.dltk-kids.com/t_template.asp?t=http://www.dltk-kids.com/animals/image/worksheets/b-wordsearch-easy-penguin.gif

http://www.dltk-kids.com/t_template.asp?t=http://www.dltk-kids.com/animals/image/worksheets/b-wordsearch-penguin.gif

Crosswords

http://www.dltk-kids.com/t_template.asp?t=http://www.dltk-kids.com/animals/image/worksheets/b-crossword-picture-withwords-penguin.gif

http://www.dltk-kids.com/t_template.asp?t=http://www.dltk-kids.com/animals/image/worksheets/b-crossword-withwords-penguin.gif

Suitable penguin books

Penguins (In the Wild series)
Patricia Kendell
Hodder Children's Books
ISBN 0 7502 4223 X



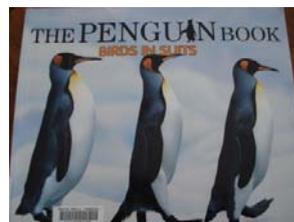
The Penguin (Nature series)
Barbara Todd
Reed Publishing
ISBN 1 86948 874 1



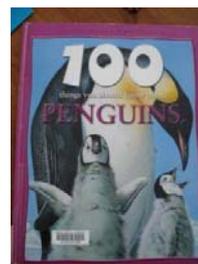
Penguins (National Geographic Kids)
Anne Schreiber
National Geographic
ISBN 978 1 4263 0426 2



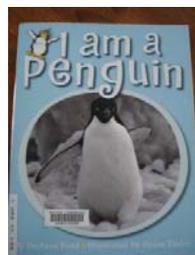
The Penguin Book – Birds in Suits
Dr Mark Norman
Black Dog Books
ISBN 1 921167 30 0



100 Things you should know about Penguins
Camilla de la Bedoyere
Miles Kelly Publishing
ISBN 978 1 84236 862 6



I am a Penguin
Barbara Todd
New Holland Publishers
ISBN 978 1 86966 246 2



Thinker's Keys

Topic/Theme Penguins

<p>The Reverse</p> <p>List 5 animals a penguin does not eat</p>	<p><i>The What if?</i></p> <p>What if penguins didn't exist? List 5 possibilities</p>	<p><i>The Disadvantages</i></p> <p>List 5 disadvantages of humans affecting penguin habitats</p>	<p>THE ALPHABET</p> <p>List words (A – Z) related to penguins</p>
<p>The Ridiculous</p> <p>A penguin is found at Splash Planet. Give 5 possible reasons for this.</p>	<p>The Commonality</p> <p>List 5 things that makes a penguin a bird</p>	<p>The Question</p> <p>The answer is penguin. Write 5 possible questions</p>	<p>The Predication</p> <p>What will a penguin's habitat look like in 50 years? Discuss</p>