

Pre-Test

Name: _____



Hey guys, my buddies and I up at Manly North Head are super excited that you're going to be visiting us soon. We had an idea and thought we'd give you a little quiz to see how much you might already know about the history, culture and nature of the area!

So put your thinking caps on and have a go. And remember, it's okay if you're not sure, because you'll learn all about this magical place when you visit. Then you can try this quiz again because you'll all be experts!

1. Leaf litter is a type of rubbish. Circle the correct answer
TRUE FALSE
2. Can you name three different living things that you might find in leaf litter?
3. We know that animals need plants to survive. (Ex. food, shelter, nesting material) Can you think of one example of how plants need animals to survive?
4. We have a very unique community of plants called the Eastern Suburbs Banksia Scrub (ESBS) that are endangered at North head. Can you think of a reason why these plants may be at risk?
5. Circle the items below that you think come from nature:
Newspaper Glass bottle Bread Plastic Bag Crayon Butter
6. Manly North Head is a very unique place and over many years it has been used by many groups of people, including the Aboriginal people. The Aboriginal people believe that they own the land.
TRUE FALSE
7. Aboriginal people have made significant contributions to our current culture, locally, nationally and globally. Can you think of one example of a contribution they have made?
8. Do you think that the type of soil (Aeolian sand) at North Head is important to the plants? Why or why not?
9. The cliffs at North Head were formed over millions of years. Can you give two examples of how they have changed over the years?



You'll learn the answers to all these questions and more when you visit. How exciting!

Post-Test

Name: _____



Hey! So how did you go? We hope you enjoyed your trip!

By now you must be an expert on Manly North Head. Have another go at the quiz and see if you have different answers or maybe know a bit more!

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TRUE FALSE
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9. The cliffs at North Head were formed over millions of years. Can you give two examples of how they have changed over the years?



Great job! Now you can share your knowledge with lots of people so they too can help to help look after our environment.

Teacher's Key

1. Leaf litter is a type of rubbish. Circle the correct answer

TRUE

FALSE

2. Can you name three different types of living things that you might find in leaf litter?

There are many, but some include: Worms, snails, spiders, slugs, millipedes, centipedes, beetles, ants, termites, fungi and bacteria

3. We know that animals need plants to survive. (Ex. food, shelter, nesting material) Can you think of one example of how plants need animals to survive?

Pollinating flowering plants, dispersal of seeds, 'planting' seeds, recycle animal and vegetable matter, aerate soil, redistribute nutrients

4. We have a very unique community of plants called the Eastern Suburbs Banksia Scrub (ESBS) that are endangered at North head. Can you think of a reason why these plants may be at risk?

*Main reason is loss of habitat – due to: fragmentation and development – building houses, roads, etc. (Other reasons – grazing by rabbits, inappropriate fire regimes, invasion by exotic plants, erosion from bikes and pedestrian use)

5. Circle the items below that you think come from nature:

Newspaper

Glass bottle

Bread

Plastic Bag

Crayon

Butter

6. Manly North Head is a very unique place and over many years it has been used by many groups of people, including the Aboriginal people. The Aboriginal people believe that they own the land.

TRUE

FALSE

7. Aboriginal people have made significant contributions to our current culture, locally, nationally and globally. Can you think of one example of a contribution they have made?

The Aboriginal people have made numerous contributions to society. Two mentioned in the excursion include their vast knowledge and use of native bush foods. Another is their extensive knowledge and ability to use different plants in nature for a variety of medicinal purposes.

8. Do you think that the type of soil at North Head (Aeolian sand) is important to the plants? Why or why not?

Yes, the type of soil determines what kinds of plants (if any!) can live in an area. The sandy soil at North Head is very nutrient poor and does not hold water or nutrients well. That's why we have such unique plants up here – in fact an endangered ecological community (ESBS) where only plants that are hardy and can survive in nutrient poor soil with little water.

10. The cliffs at North Head were formed over millions of years. Can you give two examples of how they have changed over the years?

Erosion and weathering (the breakdown of rocks caused by weather conditions) – could include rain, wind, waves, etc

Name _____

Everything Comes from the Earth



Hey kids, my mates and I were playing a game of where things come from, but we got confused and couldn't figure it out. Do you think you could help us?

You need to match the man-made item on the left with its original source from the earth on the right. The first one has been done for you. Thanks and good luck!

Man-Made Item

From the Earth



Wool Jumper

Oil/Petroleum



Glass bottle

Silk Worm



Diamond

Rubber plant



Plastic Bag

Sheep



Steel scissors

Sand



Silk Scarf

Cow



Burger

Tree



Leather shoes

Pig



Newspaper

Carbon



Tyre

Iron ore

TEACHER'S KEY

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Iron ore

Name _____

Hi guys, we hope you enjoyed your visit to North Head. We hope you learnt lots about it and why it's important to protect this unique and beautiful place.

We'd like you to write a newspaper article about the Aboriginal people and how they used the land at North Head. Maybe you could include:

1. What type of impact they had on the environment at North Head
2. If you think they have managed the land well or not. Explain why or why not.
3. What are some plants they used for food and/or medicine?
4. Name some positive contributions they have made to the world.



The Eco Times



We'd love to post some of your articles on our Facebook page and read about your thoughts. Have your teacher email us some of your articles at: info@ecoxplore.com.au

Teacher's Kit – Extension Options

LINKS (further background information)

North Head Sanctuary Foundation:

- <http://www.northheadsanctuaryfoundation.org.au/index.html> (information on work of NHSF as well as North Head's fauna & flora and history - Aboriginal, quarantine and military)

Geology:

- <https://australianmuseum.net.au/geology-of-sydney-harbour> (information on the geology of Sydney Harbour, including North Head) by the Australian Museum

Eastern Suburbs Banksia Scrub:

- <http://www.environment.nsw.gov.au/determinations/EasternSuburbsBanksiaScrubEndComListing.htm> (fact sheet on ESBS by NSW Office of Environment)

Invertebrates:

- <http://www.backyardbuddies.org.au/explore-backyard-buddies> (information on ants, beetles, caterpillars, spiders etc.) by the Foundation for National Park and Wildlife)

Aboriginal Use of Plants - Bush Tucker & Medicine:

- http://www.cpbr.gov.au/gardens/education/programs/pdfs/aboriginal_plant_use_and_tech_nology.pdf (information on Aboriginal technology and use of plants for food, medicine and tools by the Australian National Botanic Gardens Education Services)
- http://anfab.org.au/main.asp?_Fact%20Sheets (fact sheets on traditional Aboriginal food being used in modern cuisine by Australian Native Food & Botanicals)

Aboriginal Architecture:

- <http://www.australia.gov.au/about-australia/australian-story/austn-indigenous-architecture> (information on different types of Aboriginal shelters, including stone huts)

Teacher's Kit – Extension Options

WRITING / INVESTIGATION

- **Information report – Aboriginal Use of Plants OR Leaf Litter**
 - Topic 1: Aboriginal Use of Plants - Students choose a plant found on North Head (e.g. paperbark tree, grass tree, wattle, banksia) and research its use by Aboriginal people and possibly its modern use.
 - Topic 2: Leaf Litter – Explain what leaf litter is and why it is important, including which organisms live in leaf litter.
- **Research – ‘Man-made items & natural resources’**

Each student chooses one of the ‘man-made items’ from the excursion’s photo hunt and researches how this item is made, including which natural resources are used. Results can be displayed as a poster, power point presentation or booklet.
- **Persuasive writing – Sustainability**

Topic: It is more important to build houses, roads and schools than to keep/protect native bushland like the Eastern Suburbs Banksia Scrub at North Head? Do you agree or disagree?
- **Short Story – Aboriginal**

Students write a short story – topic: how a boy/girl their age has become lost at North Head and has to survive on their own (e.g. through use of bush tucker / bush medicine) and how they find their way back to their family/clan. For inspiration, the class could read the story “The Lost Girl” (see “BOOKS”).
- **Research (and cook) Aboriginal recipe**

Students research a recipe using a traditional Aboriginal bush tucker ingredient – extension: prepare food at home and bring into class for a tasting.

ART ACTIVITIES

- **Draw/paint a plant from the endangered ESBS community on North Head**
 - Use picture for inspiration, e.g.
 - Either every student draws the same plant or they draw different ones and assemble them into a classroom mural of North Head
- **Aboriginal finger painting / dot painting**

Choose one of the techniques to paint a landscape from North Head (e.g. the bush, the view to the city, the cliffs.)
- **Sketch a banksia cone from North Head**

Provided by guide on request (picked up on excursion day)

Teacher's Kit – Extension Options

VIDEOS * All 'Behind the News' videos include extensive teacher resources

Aboriginal Knowledge

- "Bush Food" by Behind the News*, ABC <http://www.abc.net.au/btn/story/s3775984.htm> (3.4min)
- Shows how an Aboriginal adult teaches three Aboriginal kids traditional knowledge such as bush food and medicine
- "Bush Tucker" by Behind the News*, ABC: <http://www.abc.net.au/btn/story/s3527750.htm> (3.48min) - Shows how celebrity chefs use traditional Australian bush tucker on their menu & how a high school grows traditional Aboriginal foods
- Various Aboriginal Topics on ABC Splash:
<http://splash.abc.net.au/home#!/topic/494038/aboriginal-and-torres-strait-islander-histories-and-cultures> (database can be searched by topic and year level)

Quarantine Station

- "Sydney's Quarantine Station" (05/06/2015) on ABC Splash:
<http://splash.abc.net.au/hombte#!/media/527271/stories-set-in-stone-sydney-s-quarantine-station> (5.41 sec) - Shows work of archeologists who examine messages carved into stone by people who had to stay at the Quarantine Station in the 19th and early 20th century. Based on those records the archeologists recount the Quarantine's history and people's experiences.

North Head Sanctuary Foundation

- "North Head: A Special Spot" by ABC Gardening Australia (19/09/2015):
<http://www.abc.net.au/gardening/stories/s4314581.htm> (3.32min)
- Costa Georgiadis visits North Head; he focuses on the endangered ESBS and the work of the North Head Sanctuary Nursery group (video could be stopped to show one of the plants as inspiration for class to paint/draw their own flower)

ESBS / Trees

- "Tree Day" by ABC Behind the News*:
<http://www.abc.net.au/btn/story/s4278854.htm> (3.24min)
- Shows why trees are important for all of us (humans, animals, other plants)
Extra Activity: Why not plant a tree at your school? Most councils provide seedlings free of charge.

Teacher's Kit – Extension Options

BOOKS

Aboriginal Experience

- **Sam's Bush Journey** by Sally Morgan
Sam is a young boy who like most young boys of this generation loves computers, DVDs, iPods and iPhones. He hates the Australian bush and the outdoors. Then he goes to stay with his Nanna who *loves* the outdoors and going for long walks in the bush. Through storytelling, Nanna begins to teach Sam about the bush: its shelter, food and water. *Sam's Bush Journey* is brimming with themes and ideas that will promote discussion amongst young readers including; journeys, the environment, storytelling, Aboriginal knowledge of the bush and intergenerational knowledge.
- **The Lost Girl** by Ambelin Kwaymullina, Leanne Tobin (Illust);
A young girl has lost her way, she has wandered away from her family. While they worry about her, Mother Nature takes care of her – she finds water, berries, a cave and finally a crow shows her the way home. The story is also available online.
<https://www.creativespirits.info/aboriginalculture/land/meaning-of-land-to-aboriginal-people#ixzz4rwkeW77U>

Quarantine Station

- **The Ghost Boy** by Felicity Pulman (novel); Readers: older primary & young secondary
Froggy dreams of drowning. Just as his nightmare is coming true, he is saved by a ghost boy, Tad. But is Tad telling him the truth, and why can Froggy now see back to the past - to 1881, when Sydney was gripped by a smallpox outbreak and the Quarantine Station was full of the stench of death? Teachers' Notes: <http://www.felicitypulman.com.au/teachers.htm>

Leaf Litter / Invertebrates

- **Bugs Alive: A Guide to Keeping Australian Invertebrates** by Alan Henderson; Readers: Primary
The book contains detailed descriptions (life-cycle, breeding, feeding) of over 90 species, as well as detailed instructions for housing and caring for your bug. Stunning colour photographs and line-art are used throughout the book to display and describe animals and their anatomy, as well as to depict construction of housing and environment.

Australian Bushland / Native Plants

- **Where have all the flowers gone?** By Jill B. Bruce & Jan Wade (Northern Beaches authors; many of the flowers also on North Head); Readers: Kindy to Year 6
This is the sad but true tale of the urbanisation of a hill of virgin native bushland. The natural bushland is bulldozed and roads, houses and introduced plants rapidly replace the natural flora. The question then is, 'Where have all the flowers gone?' Picture book with some text. Detailed explanation of loss of habitat at the end of the book. Received the Wilderness Society Environment Award for Children's Literature in 2001.