

## The Royal Albatross Maths Challenge

### Introduction

This is a homework activity prepared for Year 5 and 6 children to complement their work in the numeracy strand. It could support a science unit of work that involves a study on the Northern Royal Albatross.. The use of the books and the internet mentioned could help develop specific skills in reading and information technology.

### 1. The Royal Albatross is known to fly at speeds of 115 km an hour.

Using this fact prepare a bar graph and include the following information or facts:

- ≡ A car travelling at 100 kph (New Zealand's open road speed limit.)
- ≡ A car travelling at 50 kph. (New Zealand's 'built up' speed limit.)
- ≡ A person riding his/her bike at about 20 kph
- ≡ A rabbit (You will need to find out the speed a rabbit runs at)
- ≡ A cheetah (Again research this speed)
- ≡ A yellow eyed penguin swimming.
- ≡ A sea lion moving along the beach.

### 2. The Royal Albatross spends 87% of its life at sea.

Using this information prepare a pie diagram graph displaying this information. Please answer the following question: What happens during the remaining 13% of its life? Add this information into your pie diagram graph.

### 3. Use the information from the web site: [www.albatross.org.nz/toroa.html](http://www.albatross.org.nz/toroa.html).

Plot the flight of one of the birds they are tracking after it left Taiaroa Heads at the end of August 2007. Can you make a prediction where the birds will be in the next month; two months, three, four, etc? Plot this information on your map. Check it after those times has passed to see how accurate you have been.

### 4. Every year, the albatross covers a distance of more than 190 000km.

#### a. The oldest Royal Albatross, 'Grandma', was more than 62 years old.

How far could Grandma have travelled in her life time? Find out some distances from New Zealand to another place in the World, e.g. San Francisco. How many times could 'Grandma' have travelled there and back (from the place you chose) in her life time?

- b. After leaving the nest, the young albatross doesn't return to shore until it is three to five years old.**

Using this information above how far has this juvenile travelled? How many times has it "travelled" to the destination you set in Number 4 (a)?

- c. It is not until the albatross is between six and eleven years old that it will start to breed.**

Using the information above how far has this bird travelled? How many times has it "travelled" to the destination you set in Number 4 (a)?

- 4. Refer to the web site: [www.albatross.org.nz/colony.html](http://www.albatross.org.nz/colony.html) for information on their life cycle.**

- ≡ Adult birds that have already paired up return to the breeding colony in September and await the return of their partner.
- ≡ Eggs are laid between October and December
- ≡ The egg is incubated for 75 – 82 days.
- ≡ The chick hatches in January and February
- ≡ The chick is carefully guarded for 36 days.
- ≡ The chick leaves the nest between August and October.
- ≡ The adults return in two years times after they paired
- ≡ The young bird returns to its breeding site when it is three or four years old.

Using this information prepare a diagrammatic 3 year calendar entitled the life cycle of an albatross.

- 6. From wingtip to wingtip it (the albatross) can measure 2.75 to 3.25 metres.**

Prepare a graph indicating:

1. This measurement
2. Now add in your own height
3. The height of one of your parents
4. the height of a horse (from ground to top of head)
5. The height of an elephant
6. The height of a giraffe
7. Any other animals you wish to include

## References

Books:

Riddell, TA. 2003, Toroa The Royal Albatross. Huia Publishers, Wellington. 2003  
Parry, C and CJR Robertson. 1998. The Royals of Taiaroa Otago Peninsula Trust.

Useful Web Sites:

[www.albatross.org.nz/colony.html](http://www.albatross.org.nz/colony.html) - Royal Albatross Colony Site  
[www.albatross.org.nz/toroa.html](http://www.albatross.org.nz/toroa.html) - Radio tracking of Albatross