

# Take This Book

Read:  
*Old Blue*

By Mary Taylor

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Years 5-6

## GEOMETRY

Have students locate on a map, the Chatham Islands, and Little Mangere Island (Tapuaenuku) in particular, and describe the location relative to your town/city in NZ.

Using the map

[http://en.wikipedia.org/wiki/Little\\_Mangere\\_Island#mediaviewer/File:Chatham-Islands\\_map\\_topo\\_en.svg](http://en.wikipedia.org/wiki/Little_Mangere_Island#mediaviewer/File:Chatham-Islands_map_topo_en.svg) have students notice the grid and coordinates on the map. Discuss these as appropriate. Have students create an A4 page map of the island/s, including key locations, their own grid reference system, and compass points. Have them use their own map, but refer to the scale on the map provided, to state distances and relative positions of places, and to write specific directions to get from one place to another. Use the context of relocation from the book.

## MEASUREMENT

### Length and area

Using statistical investigation results, have students identify the least common bird. Research its diet. Seek permission from the school BOT (use N&A) to design, make and locate bird feeder stations in the school grounds.

Have students research feeder designs. Apply precise measurement skills and appropriate measurement devices to create plans, including precise measurements of dimensions, and, with adult support, build and locate feeder stations.

Have students investigate the area of Little Mangere Island, Old Blue's original home of less than 15 hectares by: defining 1 hectare (10,000 square metres, 100 m by 100 m, 0.01 square kilometres)

By measuring, pegging out/defining with markers an area that is 10m x 10m, or measuring length and width of sports grounds, and using these measurements to describe/define 1 hectare in relative terms.

Use this information to explain the relocation of the robins from Little Mangere to Mangere Island.

## STATISTICAL INVESTIGATIONS AND LITERACY

### Ref.

[http://www.backyardbirds.co.nz/bird\\_feeding3.htm](http://www.backyardbirds.co.nz/bird_feeding3.htm) to identify garden birds.

Students investigate summary and comparison questions, using the inquiry cycle, and by gathering multivariate data. Eg. Investigate: *What is the rarest/least common bird in our school environs?* Begin by identifying and listing birds in the local area.

Predict the likelihood of sighting each species, by locating bird types on a 0 – 1 scale probability scale.

## STATISTICAL INVESTIGATIONS AND LITERACY

Plan and carry out the investigation by designing and making an observation and recording sheet, locating several suitable areas in the school grounds where birds can be seen, and agreeing that observations of specified duration be conducted at several times during the day (eg. before school, mid morning, just after lunch time, and after school) in order for data to have greater validity. Pairs of students collect data from several locations, at the identified times.

Students sort and display data in different ways, interpreting results in context and accepting that samples vary. Communicate results and present findings. Objectively critique the displays of others and make suggestions. Create a plan for gathering comparative data, once bird feeders are established.

Check results against original predictions.

## NUMBER AND ALGEBRA

Research availability of bird feed (eg. seed, sugar, fruit, lard), weight, prices. Predict quantities needed in g, kg, for 1 week, 1 month, 3 month (winter season) and prepare table/budget proposal to present to BoT.

As part of ongoing numeracy learning, pose contextual problems that require students use partitioning strategies, mixed and inverse operations, find fraction and use/interpret tables and graphs to show patterns. Eg.

- There are 3 bird feeders. If a total of 291 birds visit these in one day, and no table had less than 93 birds and none more than 101, what possible numbers of birds might have visited each table? Explain your reasoning.
- At one time 64 birds altogether are on 3 bird tables. When you come along, 75% of the birds fly off. Then 75% of the remaining birds leave too. Can the tables have the same number of the remaining birds? Show how you know.
- The number (of birds feeding) double each day. If there are 192 on the 7th day, how many birds were there on the first day?
- Take note of the population numbers of black robins in the book. By the end of the book there are 130 robins. Show with a diagram or table how this could have happened.