The following information relates to;

Achievement Objectives

Life Processes, Ecology & Evolution LW 8-1: Understand the relationship between organisms and their environment.

and

Achievement Standard

3.5: Demonstrate understanding of evolutionary processes leading to speciation.

Bee Evolution

Bees first appear in the fossil record during the early Cretaceous. They are a specialised form of wasp. The ancestors of bees were predators of other insects. The switch from insect prey to pollen may have resulted from the consumption of prey insects which were flower visitors and were partially covered with pollen when they were fed to the wasp larvae. Bees are specialist pollinators with behavioral and physical adaptations that specifically enhance pollination. The appearance of such floral specialists is believed to have driven the adaptive radiation of the angiosperms (flowering plants), and, in turn, the bees themselves.

Poinar GO, Danforth BN (October 2006). "A fossil bee from Early Cretaceous Burmese amber". *Science* **314** (5799): 614

http://www.news.cornell.edu/stories/Nov06/bee.evolution.sb.html

http://en.wikipedia.org/wiki/Bee

http://www.sciencedaily.com/releases/2006/12/061209083342.htm

Kingdom:	Animalia
Phylum:	Arthropoda
Class:	Insecta
Order:	Hymenoptera
Family:	Apidae
Subfamily:	Apinae
Genus:	***Apis***

Honey bee Speciation in New Zealand

Very little research has investigated bee speciation within New Zealand. However, New Zealand has 28 native and 13 introduced species of bee. All are important pollinators of native and agricultural plants.

http://www.teara.govt.nz/en/wasps-and-bees/4

Donovan, B. J. (2007). "Apoidea (Insecta: Hymenoptera)". *Fauna of New Zealand*. **57**