

# NGARARA *Insects* AND PUNGAWEREWERE *Spiders*



## TE AITANGA A PEPEKE - NGARARA (INSECTS) AND PUNGAWEREWERE (SPIDERS)

We thought that insects and spiders deserved a special mention because they are very important to the world.

But we seem to forget about them or at least undervalue them.

We think that insects and spiders need more WOWs and heaps less "Ooh yucks".

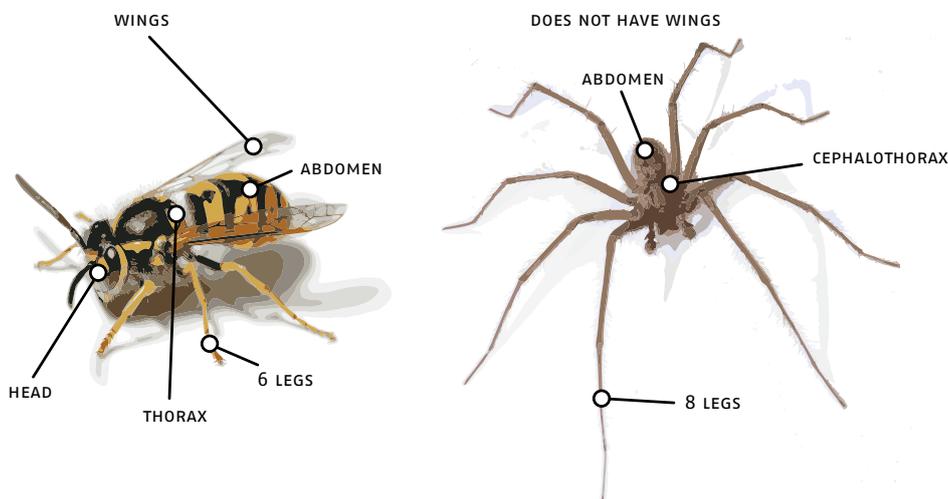
Te aitanga a pepeke includes all small creatures including insects, spiders, centipedes, frogs, lizards and others. In Māori mythology Whiro sent an army of small creatures to kill Tane as he climbed up to the heavens to get three sacred baskets of knowledge. Tane used the wind to keep the small creatures away. After getting the baskets Tane made his way back down so Whiro sent thousands of beetles to stop him but Tane beat them too. After this Tane took all the insects and other small animals back to his home in the forest.

Te aitanga a pepeke are important because they

- Keep the balance of nature by keeping pest animals and plants in check
- Pollinate fruits, flowers and vegetables.
- Are primary and secondary decomposers which means they clean up and break down waste from animals, plants and other materials.
- Stop the food web from breaking down.

Besides there are more insects in the world than any other animal. In New Zealand there are estimated to be 20,000 insect and 2,000 spider species. Ninety percent of these are found nowhere else.

### THE DIFFERENCE BETWEEN AN INSECT AND A SPIDER



If you were to go out into your garden, school, a park or reserve how many of these bugs can you find. Can you name what you see and if not make notes, draw a picture or take a photo. Once you do know what each one is what more can you find out about them.

The neat thing about a bug hunt or critter count is that you won't have to touch some or even disturb their home. If you do turn over a rotten log, stone or something else please be careful and be sure to gently turn it back over.

## NGARARA SPOTTING

Tick the ones you have seen!



ANT (POPOKORUA)



BEE (PI)



WASPS (WĀPU)



BETLES (POKAI NAMU)



BUTTERFLY (PUREREHUA)



CATERPILLAR (ANUHE)



CENTIPEDES (WAKAPIHAU)



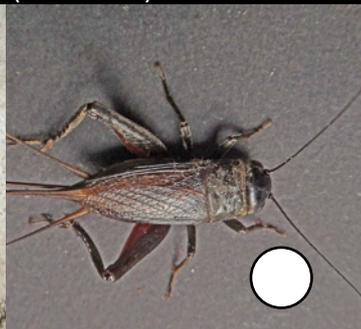
MILLIPEDE (WAIMANO)



CICADA (KIHIKIHI WAWA)



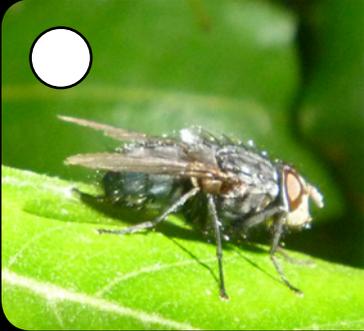
COCKROACH (PAPATA)



CRICKET (KIRIKITI)



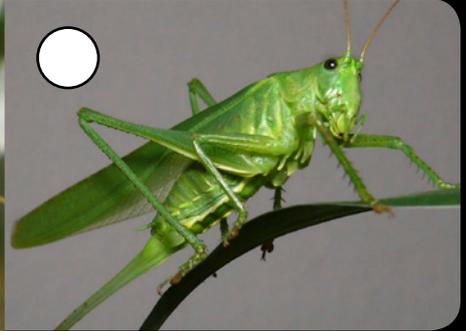
DRAGON FLY (KAPOKAPOWAI)



FLIES (NGARONGARO)



FLOWER LONGHORN BEETLE (TE PIHIROA NOHO PUTIPUTI)



GRASSHOPPER (MAWHITIWHITI)



LONGICORN BEETLE (HUHU)



MAGGOTS (IROIRO)



MOSQUITOES (NAEROA)



MOTHS (PEPEPE)



PERIPATUS (NGAOKEOKE)



PRAYING MANTIS (WHĒ)



PUNGAWEREWERE (SPIDER)



SANDFLIES (NAMU)



SLATERS (PAPAPA)



STICK INSECT (RŌ)



TERMITE (PŌPOKORUA MĀ)



WETA



**KAPO KAROWAI**

## EXERCISES

Here are some Te Aitanga o pepeke (and a few extra bigger animals) inspired exercises. For most just think about how an animal moves and you will know what to do for example duck walk. Those that are not so straight forward have an explanation.

Why not give some a go or make a circuit.

**Grasshopper** – push ups bottom leg under body vary legs.

**Stick insect** – prone holds

**Cricket** – tuck jumps

**Ant** – body weight squats and fireman's lift

**Bee** – Press up to prone hold. Start in a straight arm press up position, go down one elbow at a time to prone hold then return to press up, repeat. Or Manmakers (with or without weights) Start in plank position, go to straight arm push up, one arm dumbbell rows, to push up, into a squat then stand up to an overhead shoulder press.

**Flea** – two feet long jumps. Try leap frog.

**Beetle** – pulls, pushes with a partner or weighted object. Try wheelbarrow races.

**Duck** walk

**Frog** jumps

**Spider** crawl

- Begin in a full (not elbow) plank position
- Move one knee forward and to the outside of the elbow, shifting your weight forward while staying very low to the ground
- Continue pulling yourself forward, aiming to place your forward foot right by your hands

### PHYSICAL HEALTH AND TE AITANGA O PEPEKE

Te aitanga o pepeke are amazingly strong. Here are some examples

An ant can carry up to **50** times its own body weight

A dung beetle can pull **1141** times its own body weight

A flea can jump **200** times its own body length

A honey bee is capable of carrying **its own body weight**

A frog hopper can jump **71 cm high** or 140 times its own height

### Inch worm

- Begin standing, then bend forward and place your hands on the ground, as close to your toes as possible
- Walk your hands forward, leaving your feet where they are, until you are in a plank with your arms extended forward as far as possible
- Next, walk your feet in to your hands, leaving your hands where they are, until you end in a forward bend again

### Bat crawl

- Begin on your hands and knees
- Lift your knees off the ground, balancing on your toes and keeping your hips low
- Move one hand and the opposite knee forward simultaneously to pedal yourself forward

### Crab walk

- Sit with your legs bent and slightly spread, feet on the ground. Place your hands on the ground behind you, fingertips facing forward
- Lift your hips & butt off the ground, holding yourself up on your hands and feet
- Pedal yourself forward, backward, and/or side to side

sprints



Spin Class

hill work

pool session

weights

circuit training

plyometrics

