

Stage Seven — It's all about action!

Environmental Action Planner

What's the issue?	
What's our goal?	
What skills will we need?	Who could influence the decision? Who makes the final decision?
<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="width: 45%;"> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">Evaluation of action</div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">ACTION What are we going to do?</div> <div style="border: 1px solid black; padding: 5px;">Evaluation of plan</div> </div> <div style="width: 10%; text-align: center;"> <div style="margin-bottom: 10px;">↕</div> <div style="margin-bottom: 10px;">↔</div> <div style="margin-bottom: 10px;">↕</div> <div style="margin-bottom: 10px;">↔</div> <div style="margin-bottom: 10px;">↕</div> </div> <div style="width: 45%;"> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">How will we find out what people think and feel about the issue?</div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">How can we make people more aware of this issue?</div> </div> </div>	
What information do we need and where will we find it?	

Environmental action planner courtesy of Auckland Regional Council Stormwater Resource 'City Issues' kit



www.whitebaitconnection.co.nz

WhiteBait Connection (WBC)

Student Learning Journal

Name:

Room:

School:



Te aki i te hunga tangata te tiaki inanga

The Whitebait Connection (WBC) is a non-profit action based community conservation education programme offering concrete and specific ways in which all New Zealanders can come to understand and become involved in the future health of our local streams, rivers, lakes and wetlands.

The Whitebait Connection is a programme of the Mountains to Sea Conservation Trust (est. 2002)



If you're keen to learn more about freshwater life, water quality testing or get involved with Whitebait conservation...

Check out the Whitebait Connection programme

KEY CONCEPTS

Values of freshwater

Interdependence, interconnections and cycles of the environment from the mountains to the sea

Ecology and biodiversity

Threats to the freshwater environment

Introducing personal and social responsibility -kaitiakitanga

Stages of the programme...

Make connections
Learn about freshwater biodiversity and threats.
Form connections.
Share existing knowledge.

Dive In
Develop and form question.
Plan inquiry methods.

Explore and Discover
Investigate. Experience.
Connect. Document.

Find the Treasure
Reflect on and Summarise learning. Share findings.

Take action for freshwater
Carry out environmental action based on knowledge, inspiration and connections made.

Supported by:
ASB Community Trust
Department of Conservation
Nga Whenua Rahui
Northland Regional Council

To see other supporters and programme info:
www.whitebaitconnection.co.nz
Whitebait Connection is a programme of the Mountains to Sea Conservation Trust CC# 23406

More info:
info@whitebaitconnection.co.nz
www.whitebaitconnection.co.nz

Mountains to Sea Conservation Trust
Your Manager for the future

Stage Six – Finding the treasure

Draw your number on the values continuum below

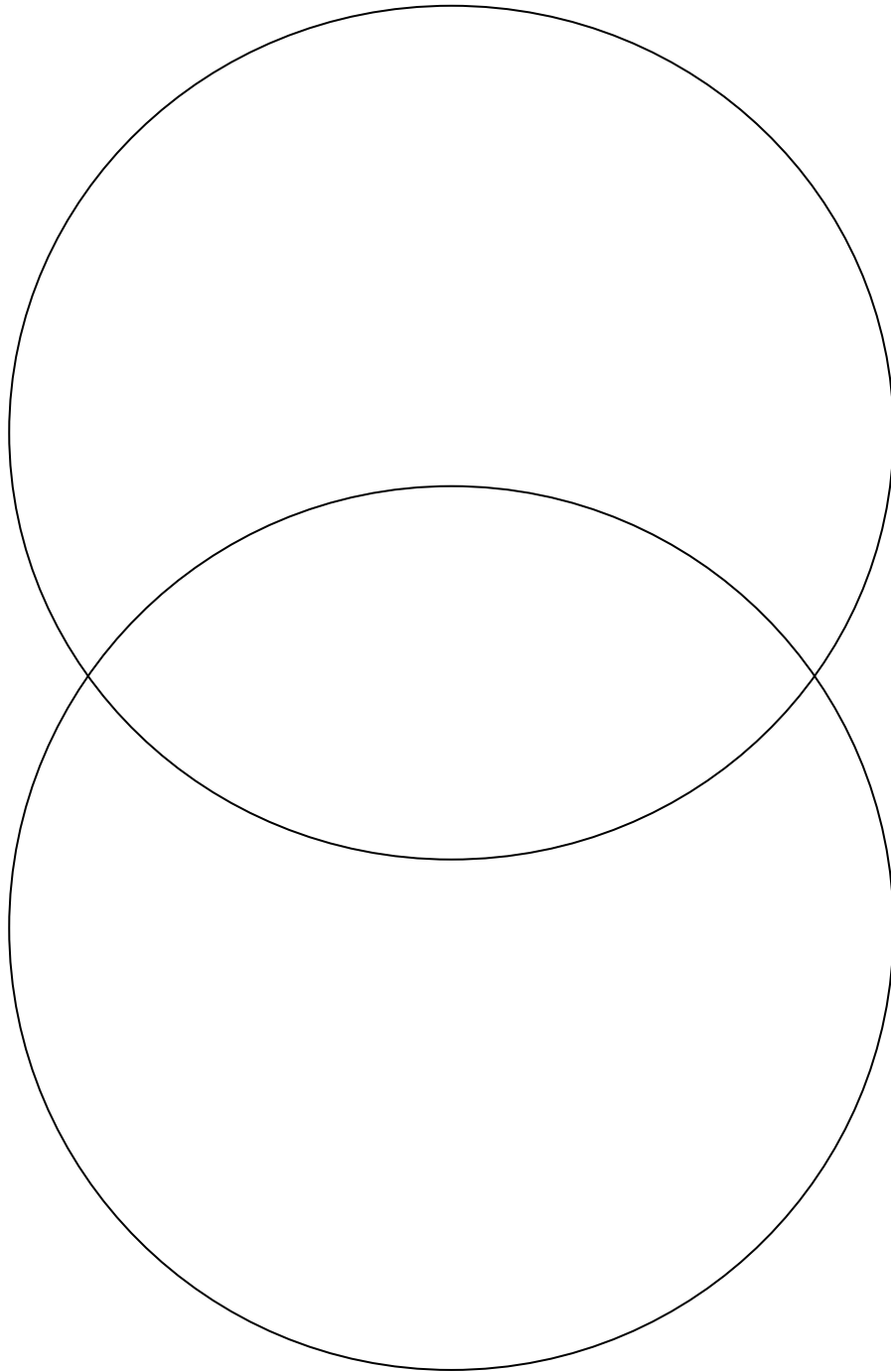
1 (don't value freshwater and knowingly pollute it) 5 (Regularly take action to avoid pollution) 10

Explain your rating below and why /if it's changed...

Draw your number on the continuum below to show how healthy you think the freshwater in your catchment is...

1 (so polluted that it's dead) 5 (So healthy you could drink it) 10

Explain your rating below and why/if it's changed...



These are the stages of the inquiry that we will do:

- Making Connections
- Strengthening Connections
- Dive In
- Diving Deeper
- Explore and Discover
- Finding the treasure
- It's all about the action

Each of these stages have associated activities that are included in this learning journal—have fun doing them!

You can write the dates for your experiences with your Whitebait Connection Coordinator below:

- 1.) Freshwater Biodiversity and Threats Workshop
- 2.) Field trip planning Workshop
- 3.) Field trip dates
- 4.) Field trip reflection workshop
- 5.) Action Planning workshop
- 6.) Celebration Day

Stage One — Making Connections

Before your first visit from your WBC coordinator, fill in the first two columns..

What I already know about freshwater...	What I would like to find out about freshwater...	What I learnt about freshwater (complete during the programme)
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Stage Five — Explore and Discover

Field Trip Two

Stage Five — Explore and Discover

Write a summary of field trip experiences below including what you did, what you learnt, what the results of the tests were and what you enjoyed the most and found interesting...

Field Trip One:

Stage Two — Strengthening Connections

Draw your number on the values continuum below

1

(don't value freshwater and knowingly pollute it)

5

(Regularly take action to avoid pollution)

10

Explain your rating below...

Draw your number on the continuum below to show how healthy you think the freshwater in your catchment is...

1

(so polluted that it's dead)

5

(Place a lot of value on freshwater)

10

Explain your rating below...

Stage Two – Strengthening Connections

Choose the correct name of the habitats pictured below from the following list:

Lake Stream River Pond



Download from Dreamstime.com 13811872 Learn from the best! Dreamstime.com



Stage Four – Diving Deeper

Te Reo Maori—He Timatanga

Using what you've learnt from the WBC identification charts and the 'Guardians of the Mauri' DVD, fill in the blanks in the table by choosing the right translation from the list below...

Waiora

Mauri

Wai Maori

Akoranga

Kutai

Whenua

Eel

Mayfly

Guardian

Water

Crayfish

Principle

Wai	
	Life-force
Piriwai	
	Living Water
Tuna	
	Mussel
Koura/Kewai	
	Freshwater
Kaitiaki	
	Investigating
Kaupapa	
	Land

Stage Four — Diving Deeper

The effect of land use on waterways and food webs...

What would happen to the Whitebait Connection food web if...

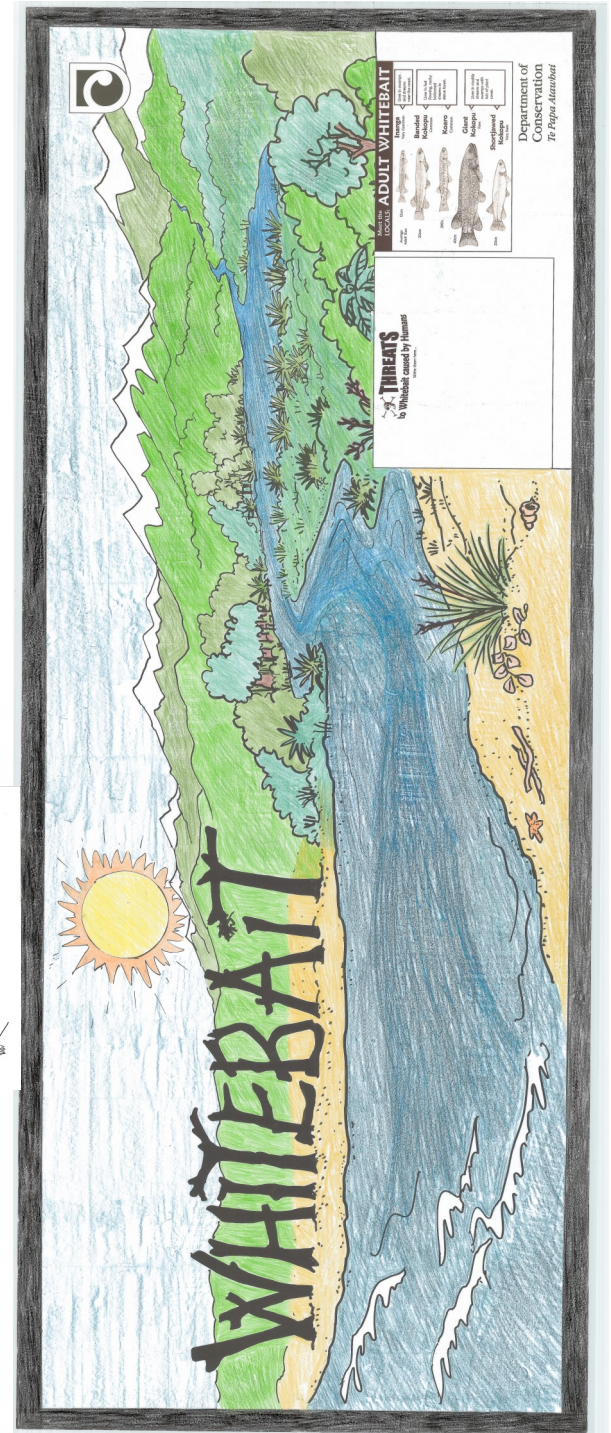
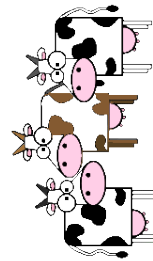
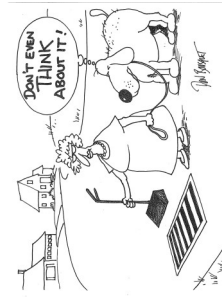
1.) Lots of trees were cleared from the land around a stream...

2.) Toxic pollution entered the stream from the storm water drains ...

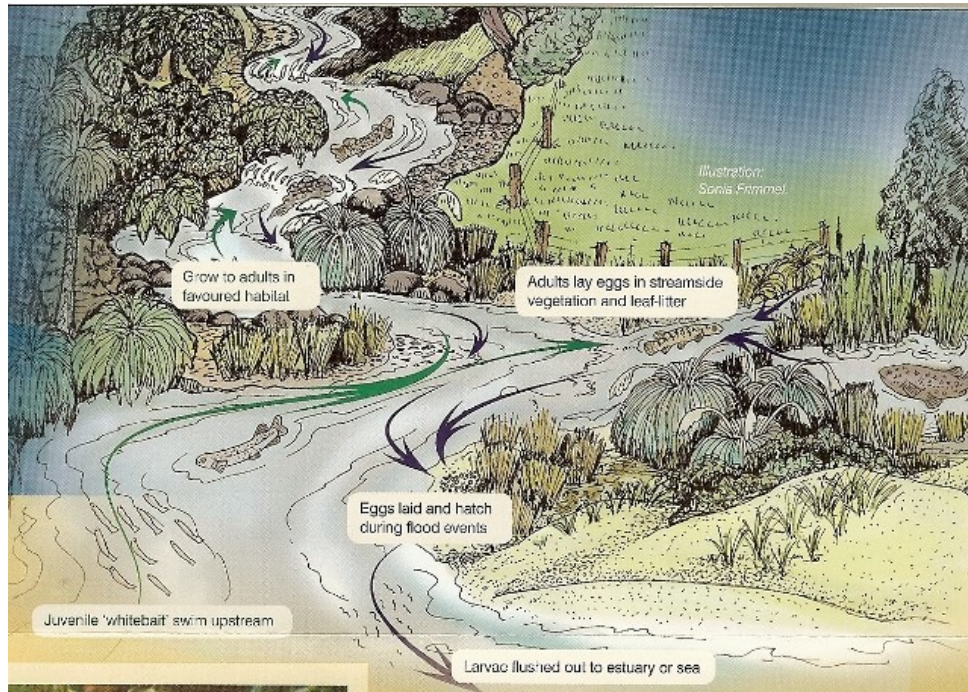
3.) Farm effluent entered the stream...

Stage Two — Strengthening Connections

Draw manmade threats into the catchment picture



Stage Two – Strengthening Connections



Explain the lifecycle of the Whitebait below...

[illegible]

Stage Four – Diving Deeper

Three things that live in freshwater are...

- 1.)
- 2.)
- 3.)

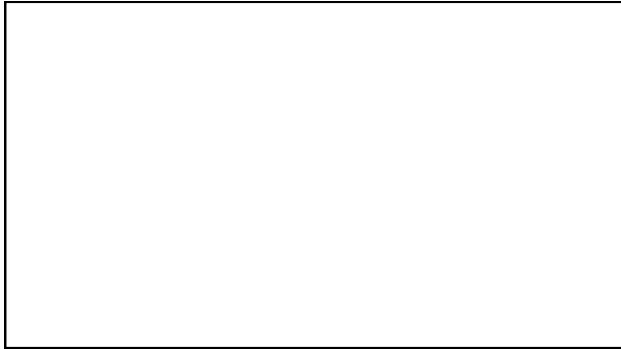
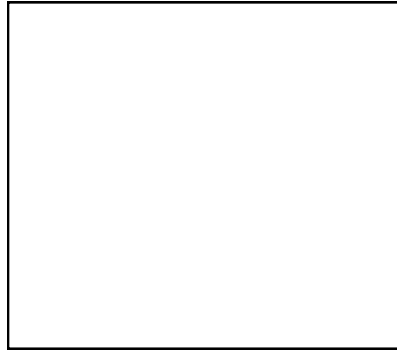
Three things that I learnt about studying freshwater are...

- 1.)
- 2.)
- 3.)

I would like to find out more about.....

Stage Four — Diving Deeper

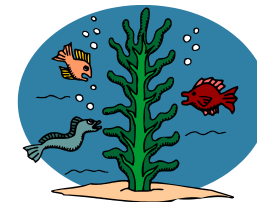
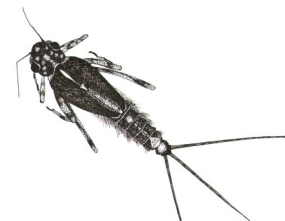
Label the following equipment with their correct names and explain what they are used for ...



Stage Two — Strengthening Connections

Food Webs—The Whitebait Connection

Draw arrows from one organism to the next to show what eats what.



Stage Two – Strengthening Connections

After the Whitebait Connection Freshwater Biodiversity and Threats Workshop...

Match the words with the correct definition by drawing a line between them...

Catchment	Belonging exclusively or confined to a particular place. Is native and also not found anywhere else in the world.
Biodiversity	Cause (someone or something) to be vulnerable or at risk; endanger
Habitat	The variety of plant and animal life in the world or in a particular habitat, a high level of which is usually consid-
Native	the natural home or environment of an animal, plant, or other organism.
Endemic	An area of land where all of the water drains into one collection point.
Threatened	a person or thing likely to cause damage or danger.
Lifecycle	An organism indigenous (found naturally in) to a particular region or country.
Mauri	The small silvery-white young of herrings, sprats, Galaxi-ids and similar marine fish, eaten in numbers as food.
Threats	the presence in or introduction into the environment of a substance which has harmful or poisonous ef-
Whitebait	The series of changes in the life of an organism including reproduction.
Runoff	(in Maori culture) life force or essence
Pollution	The terrestrial zone that fringes the edges of an aquatic habitat.
Riparian	the draining away of water (or substances carried in it) from the surface of an area of land, a building or struc-

Stage Four – Diving Deeper

Write down the plans for your class field trip in the space below including the date, time, what to bring, where you’re going, what the main objective and tasks are and what you’re looking forward to most...

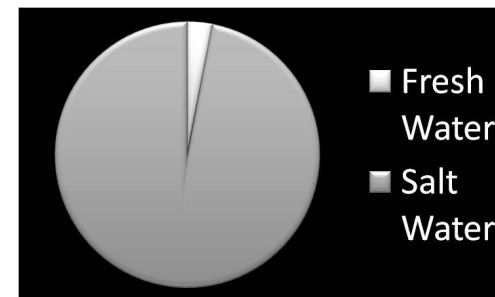
Stage Three — Dive In!

Now that learnt heaps about freshwater and your local freshwater environment you might have some 'big questions' that you would like to get answered by getting out for a field trip with your WBC coordinator. Some examples of big questions are: how healthy is the water in my local waterway? What lives in my local waterway? Write down your questions below...

[illegible]

Stage Two – Strengthening Connections

How much is fresh?



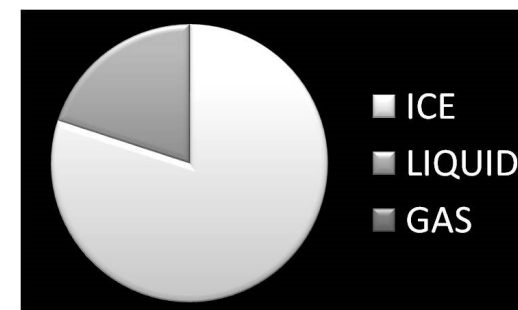
How much of the water in the world is fresh? %

How much of the water in the world is salt? %

What are the 3 different forms that water takes?

I__ **G**__ **L**_____

Of the small % of our world's water that is fresh how much is in each of the forms you listed above?



Only a small amount of the world's water is in a liquid form and available (not underground) and clean enough for us to drink (not polluted). How much ?

%

Stage Two – Strengthening Connections

Below is a picture of a C _____. Everybody lives in one of these.

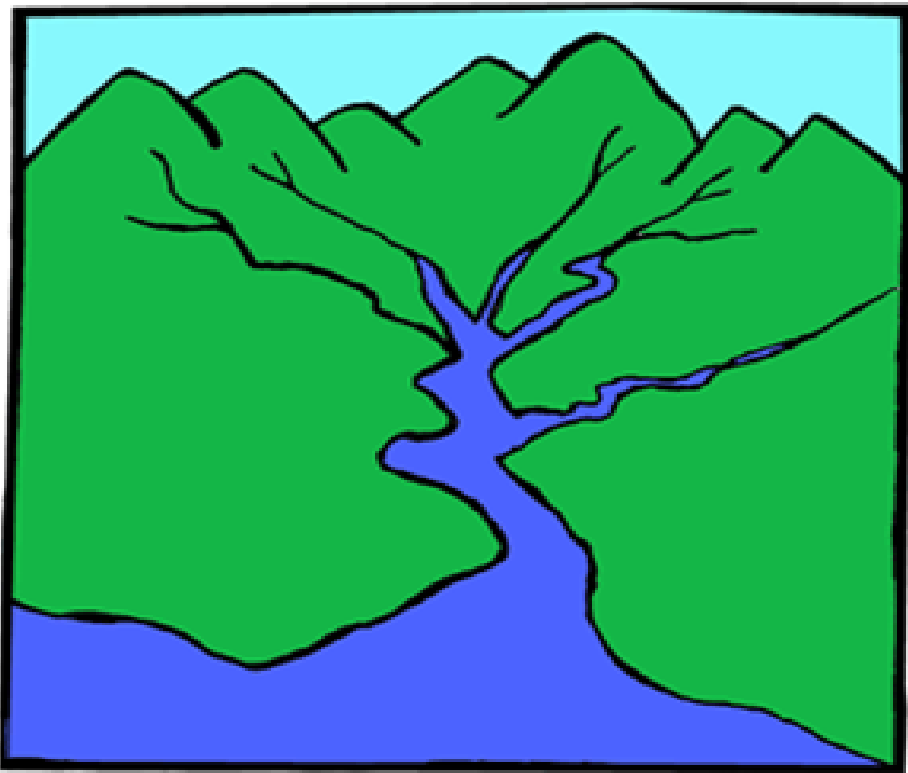
Draw in the different parts of the water cycle in the picture below..

Evaporation

Condensation

Precipitation

Collection



What sort of catchment do you live in?

Stage Two – Strengthening Connections

Go for a walk with your class to view your catchment...

Is the shape of your catchment a 'V', a 'U' or a wide flat 'U'?

What is the name of the main river in your catchment?

What are the main land uses in your catchment?

Sketch a picture of your catchment below...