FIELD TRIP INFORMATION AND DATA SHEETS

HOW TO USE

See Teacher Outline for activities and Slide Set: What is a fish? for further context.

MATERIALS

- Bait catchers (set up with lanyard, bait, weight) (one per group)
- Buckets (one per group)
- Shade cloth (wet tea towel or umbrella)
- Timer
- Copies of the worksheet, clip board and pencil
- ID Books for your local area

FIELD TRIP: TEACHER NOTES

- Find a local site to conduct the field trip. A local wharf would be ideal.
- Identify the species of fish to target. We suggest the Spotty *Notolabrus celidotus* also known as Paketi or Pakirikiri. This endemic species [native only to Aotearoa New Zealand] belongs to the wrasse family and can be found all around Aotearoa New Zealand. Triple fins or blennies would also be good.

  NOTE: We are targeting one fish species so learners get some [albeit over simplified] experience of how hard it might be to catch just the one species of fish they are targeting!
- Explain how to transfer fish from bait catchers to buckets without harming fish. We don't want to harm or kill any sea creatures during this field trip! This Responsible Fishing Guide might be helpful.
- We have set the fishing time at 5 minutes. It may take longer for the fish to pick up the scent of bait in which case you may need to extend to 10 minutes.

PROCEDURE: CATCH A LOCAL FISH FIELD TRIP

PRE TRIP (15+ minutes)

1. Brainstorm what we already know about local fish and complete the prior knowledge chart (page 8).
2. Discuss species of fish targeted. Make sure learners can recognise the target fish. Explain what we will do on our field trip.
3. Have learners read 'Local fish fact sheet: spotty'. If you are targeting a different type of fish then use the 'Local fish worksheet'.

IN THE FIELD (60+ minutes)

1. Once at the site, break learners into small groups.
2. Each group needs to
    a. Complete the top two rows of the field trip data sheet.
    b. Set up a bait catcher [add bait such as buttered bread, one or two small fishing weights and securely tie a lanyard or line to the catcher].
    c. Fill a bucket with seawater and ensure it is in the shade or shaded by a shade cloth / umbrella [this is a safe haven for any creatures caught by the group].
    d. Gently lower the catcher into the sea and start the timer.
    e. Leave the bait catcher in the water for exactly five minutes then retrieve.
    f. Carefully put the catcher in the bucket of water and open to allow any fish or other sea creatures to escape.
    g. Use the data sheet provided [see final pages] to record what was caught.
    h. Check bait and rebait if needed.
3. Repeat steps d-h five times [giving a total of 25 minutes of fishing] and record all creatures caught].
4. Observe the target species. What do you notice about the fish? How does it swim? Where are the mouth and eyes? Do you think this fish is benthic [bottom dweller] or pelagic [mid water]? [You could also complete the activity called 'observe and decode a fish' on the final page of Fishy Fact Sheet]
5. Gently release all creatures back to the sea!

POST FIELD TRIP (50+ minutes)

1. Review and evaluate. What did we learn? What more do we want to learn…
2. Talk about fishing effort i.e. how long it took to catch the Spotty [see also extension activity].

3. Talk about the Marine Stewardship Council's three principles for sustainable fisheries and consider the fish just caught:
    i. Fishing effort: Is there evidence of overfishing for this fish?
    ii. Bycatch: Was it easy to just catch the targeted fish or was there bycatch? Was it easy to catch the required amount (one fish)? What percent of bycatch were released unharmed?
    iii. Habitat damage: Was there any damage to the environment from our fishing method?
    iv. Fishery management: Are there rules around catching this fish and is there a long term management plan in place for this species of fish?
    v. Fishing method: What would be the likely impact of other methods? Was ours the best method?
    vi. Marine Stewardship Council's sustainability assessment: Discuss that i-v are all factors that you would look at if you were assessing a fishery on behalf of the Marine Stewardship Council and looking at whether a fishery was fished sustainably.

EXTENSION

Collate and graph findings (i) Simple bar graphs showing length of time taken to catch first Spotty. (ii) Bar graph showing taxonomic groups of bycatch [e.g. mollusc, crustacean, bony fish…].

PRIOR KNOWLEDGE CHART

THE FISH THAT LIVE NEAR US

PRIOR KNOWLEDGE CHART

What we know	What we would like to know	What we have learned

SAMPLE FIELD TRIP DATA SHEET

Your name(s): Aroha Jones & Finn Taniwha	**Date & time:** Monday 13th May 2020 @ 10.20am	**Site location [name / GPS coordinates if available]:** Panea Wharf
High tide today is at: 10.43 AM	**Name of target fish:** *Notolabrus celidotus* (Spotty)	**Time taken to catch first target fish:** 15 minutes

Five minute period	Type of creature / species if known	# caught	Other notes [e.g. f / m]
0-5 minutes	Shell fish [Cats eye]	x 2	
	Fish [Triple fins]	x 4	
5 – 10 minutes	Fish [Spotty]	x 1	female

FIELD TRIP DATA SHEET

Your name(s):	Date & time:	Site location [name / GPS coordinates if available]:
High tide today is at:	Name of target fish:	Time taken to catch first target fish:

Five minute period	Type of creature / species if known	# caught	Other notes [e.g. f v m]

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