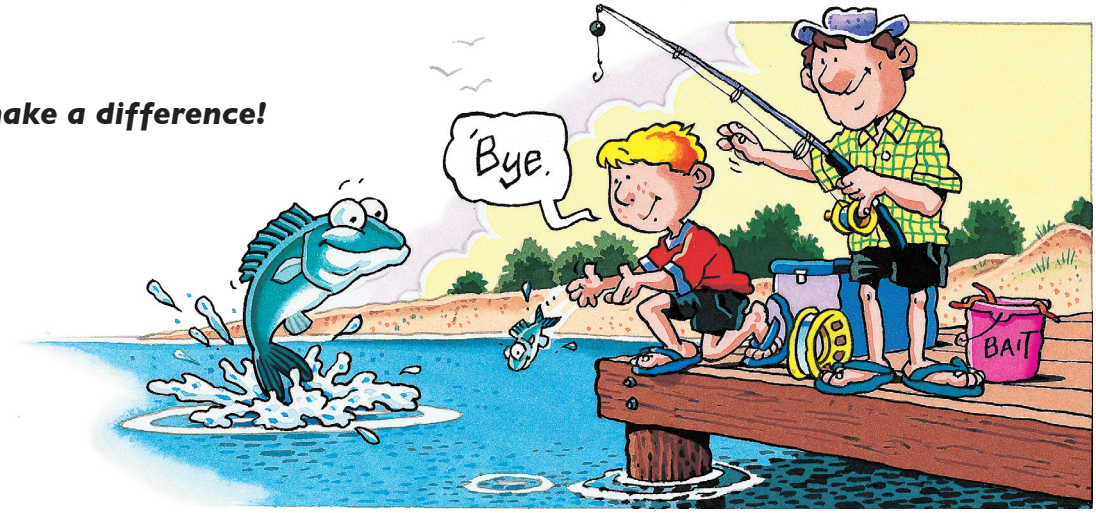
Code 4

Throw the little ones back

Code 4 Throw the little ones back Year Level 5/6

You can make a difference!



Specific Learning Outcomes

By completing this code a Junior Fisher learns to:

- identify and then measure fish that are caught using a fish length ruler
- help conserve fish breeding stocks by quickly and correctly returning undersize fish alive to the water
- understand that size and bag limits are needed to help ensure there will be enough fish left to breed for the future
- be aware of the role marine and freshwater parks and sanctuaries play in making sure there will be fish for the future.

These activities and skills support the following NSW Board of Studies Stage 3 syllabus outcomes:

Mathematics	Science & Technology	PDHPE	English
MS3.1	LTS3.3 INVS3.7 DMS3.8	COS3.1 INS3.3 DMS3.1	TS3.2

Good Junior Fishers throw the little ones back.

View the background information from the *Get Hooked DVD.*

Δ Background notes

Why do we need juvenile fish?

It is vital that the 'little ones' or the juvenile fish are correctly released if accidentally caught by a fisher. Juvenile fish are our fish for the future. We need them to mature and breed and continuously replenish fish stocks so there will be enough for all fishers and marine life to feed upon in years to come.

Many fish, such as sharks, are slow growing and have a low reproductive rate.[7] This is often the reason for different size limits for different fish. We want to ensure we catch mature fish that have had the chance to breed over several seasons.

Juvenile fish habitat

Juvenile fish can also become affected if their habitat is disturbed or unnaturally altered in any way.

Examples include:

- Algal blooms which may smother seagrass beds in estuaries, reducing sunlight needed by plants to manufacture food and produce oxygen. Seagrass beds are an important habitat for many juvenile fish that are caught both commercially and recreationally. Reduced seagrass impacts on fish larvae survival.
- Submerged old trees, tree limbs and branches known as 'snags' that are removed from the river. These snags act as small calm bodies of water in a flowing river for fish to lay their eggs. An example of this is adult river blackfish. Hollow submerged logs are used for breeding in the summer months. The female lays several hundred eggs which attach in layers to the bottom of the inside of the log. The male then guards the eggs. Depositing eggs in less suitable locations, such as sediment covered logs can lead to reduced egg and larval survival.[8]

How we can help our juvenile fish?

1. Keep a release kit in your tackle box (wet rag, de-hooker or pliers).
2. Return undersize or unwanted fish to the water as soon as possible, by simply making sure your hands are wet to avoid rubbing the protective slime off fish scales.
3. Always place fish on a wet surface to remove the hook from their mouth, as a dry surface will once again rub the protective slime off fish scales.
4. If you are unable to remove the hook safely just cut the line close to the fish's mouth. The hook will eventually dissolve or dislodge over time. Due to the risk of personal injury to young fishers, do not encourage Junior Fishers to use hook remover or long nose pliers on their own.
5. Take care not to damage fish's eyes. The eye lens can be damaged on hard surfaces.
6. Avoid using landing nets which have knotted mesh, as once again these damage fish scales.
7. Keep a fish length ruler in your tackle box at all times, so you will quickly and easily be able to measure fish size.
8. Support juvenile fish habitat by being aware of the impacts of:

- Snags, shady trees, erosion etc (This is developed further in 'Quality Catchment equals Quality Fish, Year Level 5/6)
- Leaving empty shells behind to act as habitats for juvenile fish and other small aquatic life.
- Excessive nutrients (eutrophication) flowing into the water can upset the balance of the water and may cause algal blooms

9. Understand the need for juvenile fish to have marine protected areas.

[7] p.17 Our Sea, Our Future [8] p.4 Forest, Water and Recreational Fishing (Source Unknown)

Fishy activities

Activity will be motivated by the following interactive drama

'A tale of two junior fishers'

Introduce concepts of 'throw the little ones back', based on an old, true tale (from Craft and Craftsmen of Australian Fishing) with a basic type of interactive drama as follows:

Props:

- Section of fishing net
- Fish cutouts
- Paper clips
- Two fishing rods
- Two small fold out 'fishing chairs'
- Storycards (copy this page for the story card teller)
- Three students – two to act as the fishers and one to read the storycard

Interactive tale:

This is a tale of two junior fishers…(Hand out a small fishing net and two rods)

We find them sitting by the side on the beach/swamp (points to two seats placed strategically). They were both very keen fishers and every night after school, they would grab their rod, a seat to fish on and belt down to the pier to throw their lines in (Cast line towards magnetized fish).

Storycard teller:

That night one of them as they were quietly fishing, said to the other, " You know, I was talking to the old fisherman that lives at the end of my street and he said, 'When I started on the snapper trapping (substitute ***local fish as appropriate)*** and threw my old hand line away, that was the worst thing that ever happened to the fishing game. We used to trap like this…"

Junior Fishers:

Model pulling a fishing net that already has the cutout fish paper clipped to the net to show how entangled they can become.

Storycard teller:

The fisherman continued, "Problem was, there were no escape gaps in them for undersize fish, which there should have been in the back of the trap to let undersize fish out. You'd save a lot if you got them over the side quickly, just as soon as they hit the deck you'd try to get rid of your small fish. Even then a lot would blow up and wouldn't hit the bottom. Anyone that was careless and picked up a good fish first, well then the small fish didn't get much of a chance'.

Junior fishers:

Two students re-enact tipping out the fish as the story teller finishes the storycard.

Note: Specific Oral Tales based on tales of fishermen: ***Craft and Craftsmen of Australian Fishing 1870-1970.*** An illustrated Oral History.

'A fishing we will go!'

This is a practical game to familiarise young fishers with the need for bag limits, size requirements and correct measuring techniques.

Props:

- Approx 80 cutout fish: 40 large, and 40 small. (16 large and 16 small have been provided. As an additional exercise, ask the children to make more fish by using the supplied cut outs as a stencil).
- Fishing rods made from bamboo about 60cms in length with a piece of string tied to one end, on the other end of the string attach a small magnet.
- Blue floor mat.
- 3 minute sand timer.
- Wilbur the Wise Fish Whiteboard.
- NSW fish length ruler
- Some rocks / branches, plastic / silk aquatic plants, other relevant habitat element.

Room layout:

Discuss and then create a chosen relevant scene, e.g. an inland river, lake, rock-platform, using blue sheets folded to represent a river or spread out to represent a larger area.

Add features explored by the group that you would find in that habitat, eg rocks, seaweed, logs, etc. Let the students place the fish around those features, using prepared cut out fish of varying sizes (small, medium, and large).

Activity- Stage 1

The whole group is then to sit around the edge of the habitat.

- Half the class or every second member of the group receives a fishing rod. No instructions are given other than they are to go fishing.
- Using the three-minute timer, fishers catch fish. Before they can cast their line after catching something they must pretend to bait their hook.
- When the three minutes have passed, fishing ceases.
- Tally individual 'catches', look in the habitat and decide if there are many or just a few fish left.

Suggested discussion points

- Ask some group members: how many fish are in your bag?
- Did you keep all that you caught?
- Ask whole fisher group "Did you leave any fish for the next time you fish?" (If they didn't, gently remind the group to remember the story of the old fisherman who didn't have time, or couldn't throw the little ones back. Ask them their thoughts on what they think may happen to the river/lake/ocean next time when the other students go to fish.)