

Ocean Teens

Classifications Worksheet

QLD CURRICULUM LINKS: MB1.4 MB1.6

SECTION 1

Introduction

Proceeding from the most general to the most specific, the taxonomic categories are:

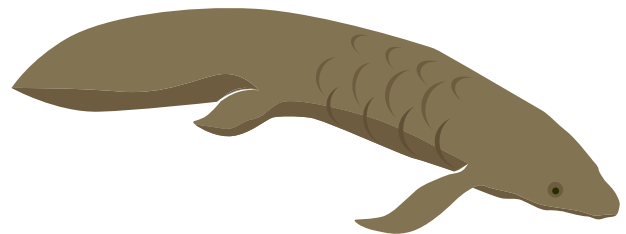


For every zone of SEA LIFE Sunshine Coast, find and name two (2) animals that belong to a phylum in the table below. List them in the correct column. Where possible, write both the common name and scientific name (use signs!)

Chordata Backbone, nerve chord	Echinodermata Radial symmetry, Regenerative powers, Water vascular system.	Arthropoda Exoskeleton, Jointed appendages Segmented body.	Mollusca Muscular foot, Mantle.	Cnidaria Stinging cells in tentacles surrounding a central mouth.

In the space below, design your own dichotomous key using these animals found in the Billabongs Area:

- Queensland Lungfish (*Neoceratodus forsteri*)
- Giant Gourami (*Osphronemus goramy*)
- Archerfish (*Toxotes sp.*)
- Pacu (*Colossoma macropomum*)



Your key should be based on easily observable physical features, not on factors such as habitat or behaviour. Your key should follow the same format as the shark key on side 2.

Ocean Teens

Classifications Worksheet

QLD CURRICULUM LINKS: MB1.4 MB1.6

SECTION 2

Dichotomous Diaries

Numerous keys have been designed to identify species. A dichotomous key gives two choices where only one choice is valid. Below is a dichotomous key used to identify different shark species. Use this key to identify five (5) shark species found at SEA LIFE Sunshine Coast. **Note the pathway followed by listing the choice numbers:**

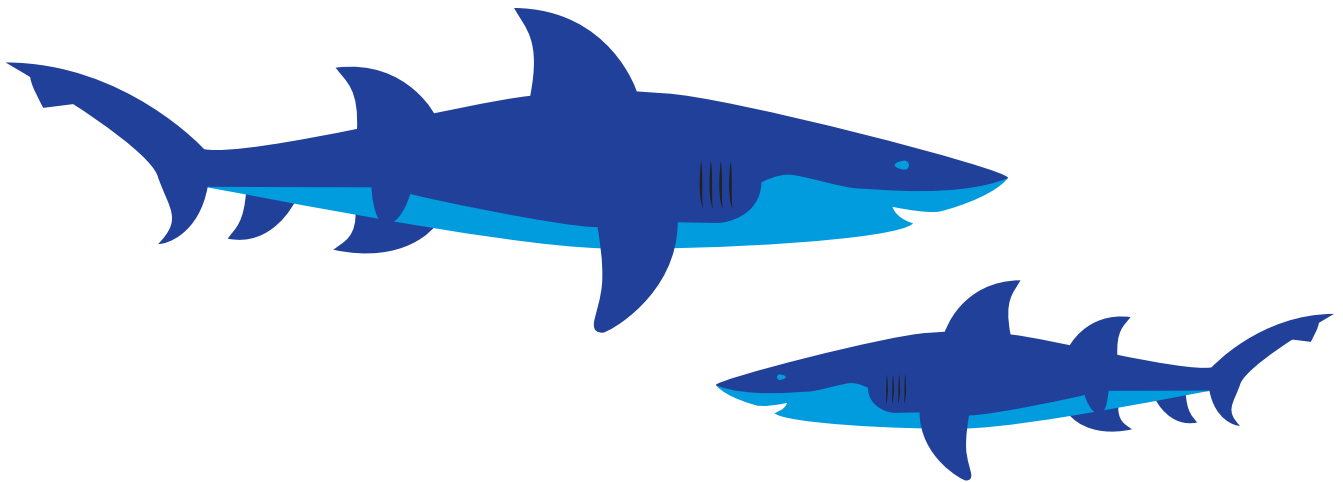
Shark 1

Shark 2

Shark 3

Shark 4

Shark 5



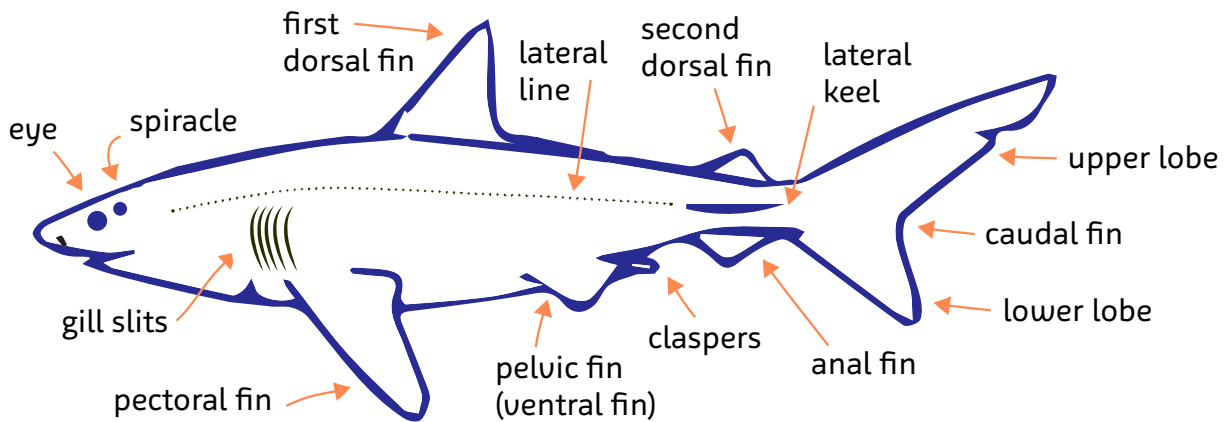
Meaning of terms:

- Heterocercal** Having the vertebral column terminating in the upper lobe of the caudal fin, which is usually larger than the lower lobe.
- Homocercal** Having a tail with equal or nearly equal lobes and axis ending near middle of base.
- Fusiform** Spindle-shaped, rounder in the middle, tapering gradually at both ends.
- Barbels** Tactile projections arising from the head of various fishes.
- Terminal** Situated at the end.
- Subterminal** Situated near the end.
- Supra orbital** Above orbital (eye) cavities.

Ocean Teens

Classifications Worksheet

QLD CURRICULUM LINKS: MB1.4 MB1.6



- | | | | |
|-----|----|--|-----------------------|
| 1. | a) | Gills on the side of the head | 2 |
| | b) | Gills not on the side of the head | Ray (ie, not a shark) |
| 2. | a) | Seven gill slit openings | Seven-gilled shark |
| | b) | Less than seven gill slit openings | 3 |
| 3. | a) | Spiracles present | 4 |
| | b) | Spiracles Absent..... | 15 |
| 4. | a) | Large spiracles | 5 |
| | b) | Reduced spiracles | 7 |
| 5. | a) | Firm Dorsal ridges | 6 |
| | b) | No firm dorsal ridges..... | 7 |
| 6. | a) | Extended tail longer than body | Zebra shark |
| | b) | Tail not as long as body..... | Whale shark |
| 7. | a) | Almost Terminal Mouth | 8 |
| | b) | Definite Subterminal Mouth | Grey nurse shark |
| 8. | a) | Body is moderately fusiform | Tawny nurse shark |
| | b) | Body not fusiform | 9 |
| 9. | a) | Dorsal fins possess horns | 10 |
| | b) | Dorsal fins absent of horns..... | 11 |
| 10. | a) | Supra orbital crest high and ends abruptly | Crested horn shark |
| | b) | Dark oblique stripes | Port Jackson shark |
| 11. | a) | Extensive barbels around head | 12 |
| | b) | Nasal barbels only | 14 |
| 12. | a) | Barbels extending around head and chin | Tasselled Wobbegong |
| | b) | Barbels not extending around head and chin | 13 |
| 13. | a) | Colour; Dark dorsal saddles and blotches outlined by black | Striped Wobbegong |
| | b) | Colour; Dorsal saddles and spots outlined by white | Spotted Wobbegong |
| 14. | a) | Large black spots on pectoral dorsal surface | Epaulette shark |
| | b) | Black Spots absent | Bamboo shark |
| 15. | a) | Heterocercal tail | 16 |
| | b) | Homocercal tail | Mako shark |
| 16. | a) | Caudal fin longer than body | Thresher shark |
| | b) | Caudal fin shorter than body | 17 |
| 17. | a) | Dorsal fin originate behind pectoral fins | 18 |
| | b) | Dorsal fin originates in line with pectoral fins | Sandbar whaler shark |
| 18. | a) | Distinct colour on dorsal fin tip | 19 |
| | b) | No colour on dorsal fin tip | Grey reef shark |
| 19. | a) | Black colour tip on dorsal fin | Black tip reef shark |
| | b) | White colour tip on dorsal fin | White tip reef shark |