

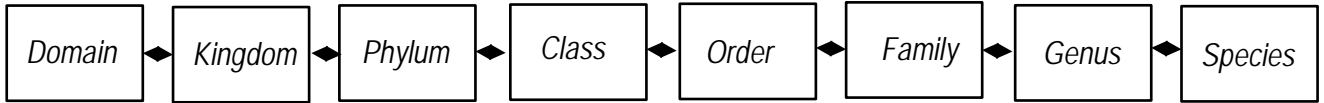


It's Classified: Classifications

NAME: _____

Year 11 &12

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



For every zone of SEA LIFE Sydney Aquarium, 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

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 the following animals found in the Jurassic Seas:

- Queensland Lungfish (*Neoceratodus forsteri*)
- Archerfish (*Toxotes sp.*)
- Nautilus**
- Pig Nosed Turtle

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.

Shark Valley 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 Sydney Aquarium. **Note the pathway followed by listing the choice numbers.**

Shark 1: _____

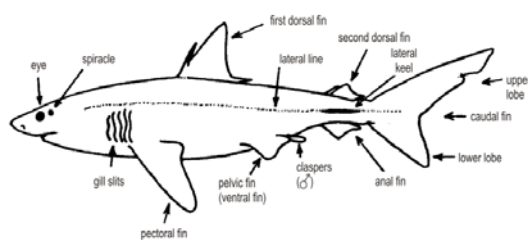
Shark 2: _____

Shark 3: _____

Shark 4: _____

Shark 5: _____

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



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.