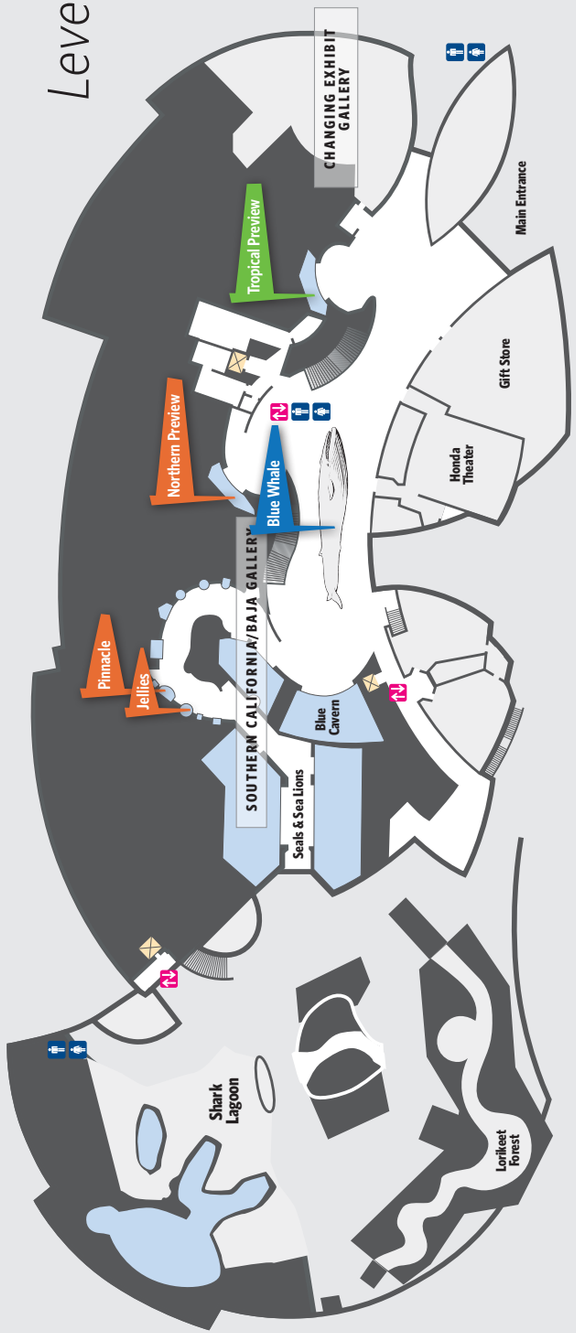
Level 1



Things to do

...at the Aquarium

- Touch a shark
- See a show
- Visit a Discovery Lab
- Ask questions
- Have fun!

...back at school

- Write or draw about your trip to the Aquarium
- Consider a classroom animal adoption
- Visit aquariumofpacific.org/teachers
- Keep learning more

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QUIKSILVER FOUNDATION

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aquariumofpacific.org *100 Aquarium Way, Long Beach, CA 90802*

1st GRADE

FIELD TRIP

CHAPERONE GUIDE

Chaperones:
Use this guide to move your group through the Aquarium's galleries. The background information, guided questions, and activities will keep your students engaged and actively learning.

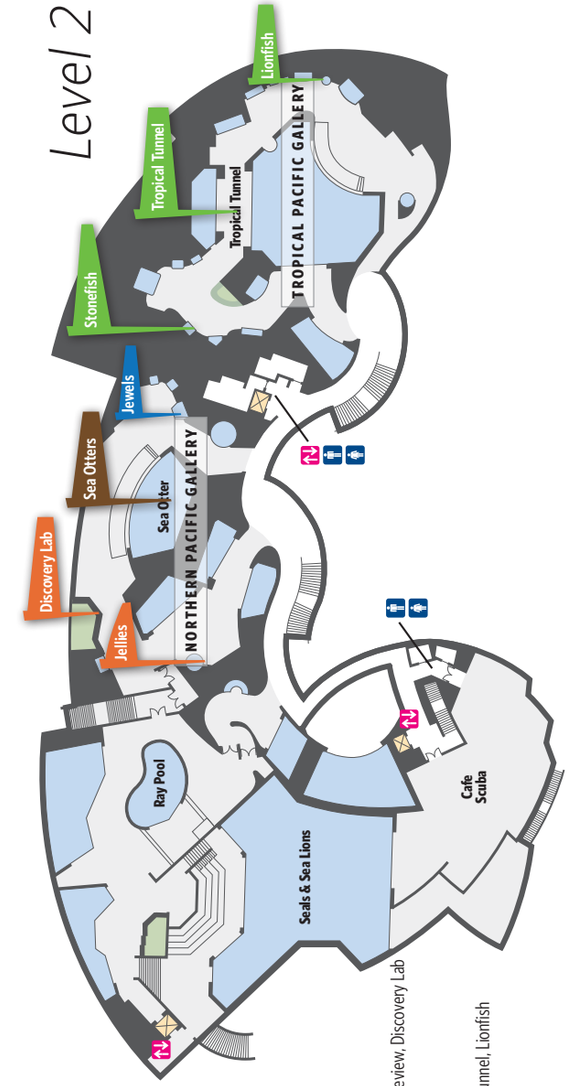
It's all about

Adaptations

Spines, shells, suction cups, and more! There are so many amazing adaptations to see at the Aquarium. Each one helps the animal survive in its habitat. Fish and sharks have gills to breathe underwater, crabs have claws to grab food, and urchins have spines to protect themselves. Explore four unique adaptations and compare how different animals use adaptations to survive.

Aquarium of the Pacific

Level 2



Where are they?

This map shows the locations of exhibits where you can see animal adaptations throughout the Aquarium.

Exhibit Key:

- **Stinging Cells** — Jellies, Pinnacle, Northern Preview, Discovery Lab
- **Size** — Blue Whale, Jewels
- **Hair** — Sea Otters
- **Color** — Tropical Preview, Stonefish, Tropical Tunnel, Lionfish

AMAZING ADAPTATION:

Stinging Cells

Jellies and Anemones

Jellies and anemones are cnidarians, or animals that have stinging cells. Their tentacles are covered with these stinging cells, called nematocysts, which are used to catch prey. Although anemones sting their food, our skin is so thick, it just feels sticky.

Guiding questions:
What does the anemone's tentacle feel like? Why?
What body parts can you see on the jelly?
How does the jelly move?

Activities for students:
Jellies move wherever the water takes them. Pretend to be a jelly in an ocean current.

Clownfish are known for living within the anemone's tentacles, but do not get stung.

Jellies have no heart, no brain, and no blood.

AMAZING ADAPTATION:

Color

Stonefish and Lionfish

From stonefish that camouflage in the rocks to lionfish that brightly warn of their venom, tropical fish use color in many ways. False eye spots, stripes, designs, and bright colors are just some methods a fish may use to confuse, warn, or distract potential predators. When you look at a fish, what do its colors say to you?

Guiding questions:
What is it called when an animal blends into its surroundings?
Why would a fish have a false eye spot?
How does a fish warn a predator with color?

Activities for students:
Find a venomous fish that camouflages in the rocks.
Find a brightly colored venomous fish.

Stonefish are the most venomous fish on the planet and look just like the rocks!

Lionfish are also venomous, but they advertise their venom with bright colors.

AMAZING ADAPTATION:

Hair and Fur

Sea Otters and Humans

All mammals, whether on land or in the ocean, have hair at some point in their lives. Many use hair or fur to maintain a constant internal body temperature. This is called being warm-blooded. Since sea otters live in very cold water they rely on thick fur and a fast metabolism to stay warm.

Guiding questions:
What do otters breathe?
Do otters and humans have anything in common?
What behaviors do you see the otter doing?

In a space the size of a quarter, otters can have up to 1 million hairs!

Activities for students:
Are you warm-blooded? Feel your forehead and under your armpit. What does it feel like? Play charades with the five characteristics of mammals (hair, live birth, drink milk, breathe air, and warm-blooded.)

Sea otters, unlike other marine mammals, have no blubber to keep them warm.

AMAZING ADAPTATION:

Size

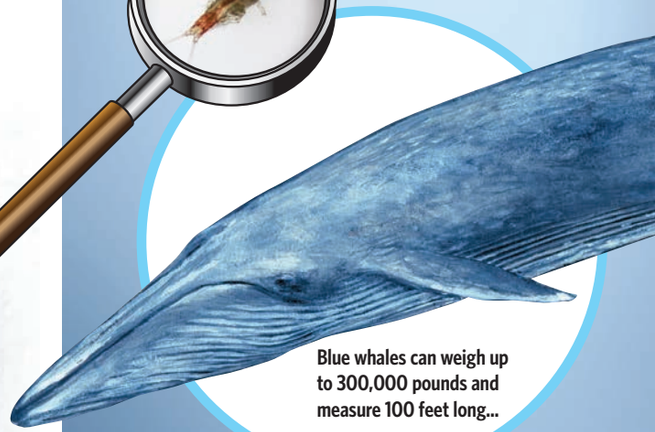
Blue Whale and Plankton

In the open ocean, size is a useful adaptation for survival. Both the largest animal on the planet, the blue whale, and the smallest plankton call the open ocean their home. Plankton are ocean drifters and can be either plants or animals. Many of our touch tank inhabitants start their lives as drifting animals.

Guiding questions:
What tools can we use to see small animals?
Blue whales eat plankton. How do they eat such small food?

Activities for students:
How many 1st grade students does it take to equal the length of a blue whale? Hold hands and stretch out from the whale's fluke to its mouth.

Copepods are plankton, and one of the most abundant animals on the planet.



Blue whales can weigh up to 300,000 pounds and measure 100 feet long...

...that's longer than three school buses!