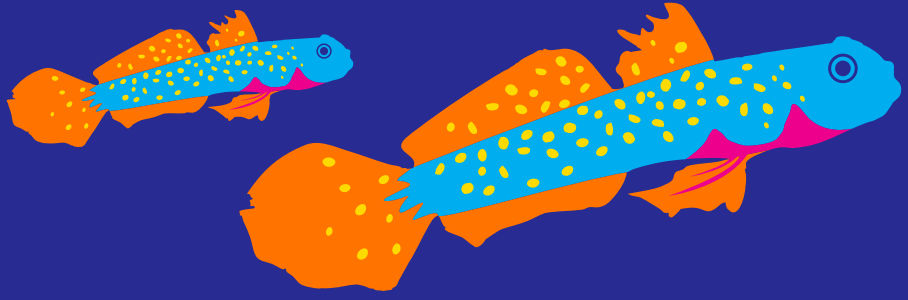
SEA LIFE

SCIENCE
Under The Sea

Rockpool Ranger

Dive into Science Under the Sea



A **HIGH CONTRAST** animal fact book for kids!

Dive into the magical world of rock pools along Australia's east coast! These tiny underwater worlds are bursting with fascinating creatures.

Sea Star

Fact: Sea stars have five arms—and sometimes even more! If they lose an arm, they can grow it back.

They don't have a brain or blood. Instead, they use seawater to move and eat.

Question: What would you do if you had five arms?

Understanding the Science Under the Sea

Sea stars use water instead of blood, pumping it through a system of canals called the water vascular system. This helps them move their tube feet and eat. Their ability to regenerate arms comes from special stem cells that repair lost parts.

Why it matters: Regeneration allows sea stars to survive predator attacks and grow back stronger.

Sea Anemones

Fact: Sea anemones may look like flowers, but they're actually animals! Their tentacles catch tiny fish and plankton for food.

They have a sticky grip to hold on tight when waves crash.

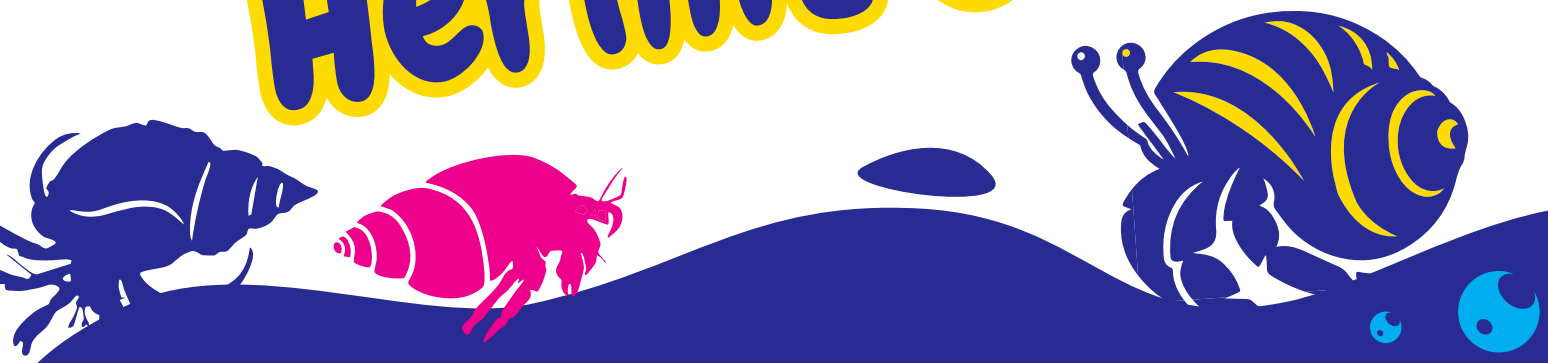
Question: Can you imagine a flower that eats?

Understanding the Science Under the Sea

Sea anemones are animals that use stinging cells, called nematocysts, to catch prey. These cells shoot out tiny harpoons filled with venom to stun small fish and plankton.

Why it matters: By anchoring themselves to rocks and waving their tentacles, sea anemones can feed in one spot while withstanding strong waves.

Hermit Crab



Fact: Hermit crabs borrow empty shells to live in and change shells as they grow bigger.

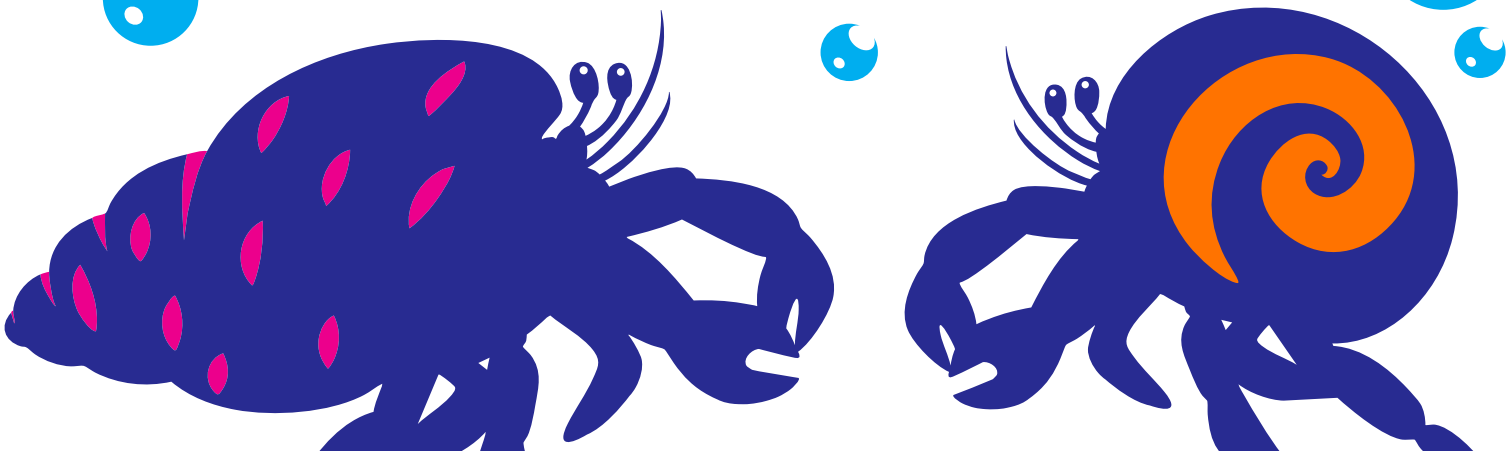
They never make their own shells—they're expert recyclers!

Question: What kind of shell would you choose if you were a hermit crab?

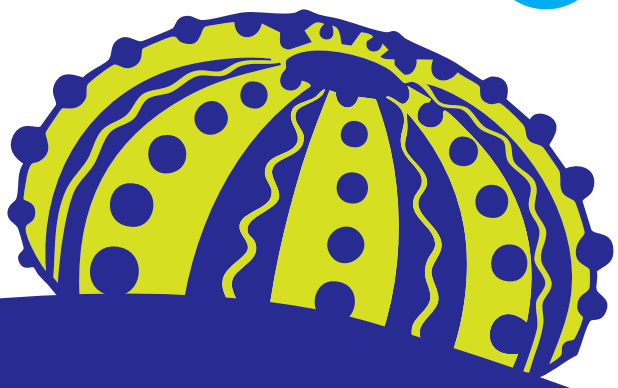
Understanding the Science Under the Sea

Hermit crabs lack a hard shell on their body, so they rely on empty snail shells for protection. They choose shells that fit snugly and switch to larger ones as they grow.

Why it matters: This behaviour not only protects them but also recycles shells, keeping the rock pool ecosystem balanced.



Sea Urchin



Fact: This spiky creature uses its tube feet to crawl and eat algae.

Some sea urchins can live up to 200 years!

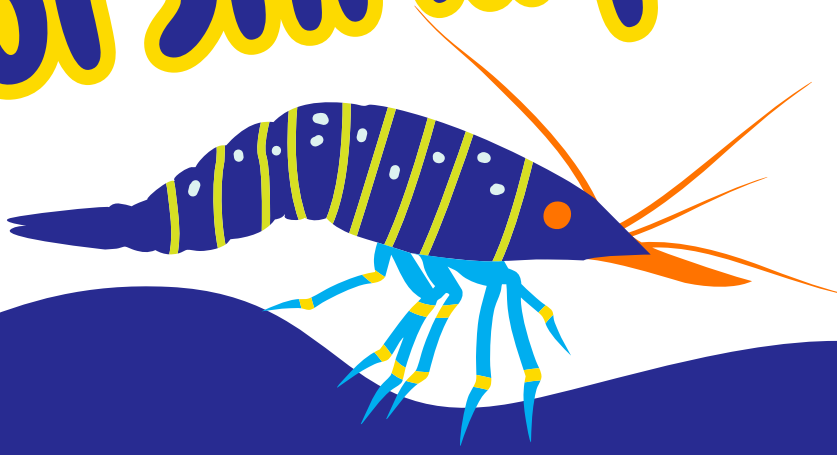
Question: Would you want to live as long as a sea urchin?

Understanding the Science Under the Sea

Sea urchins have a hard, spiny shell called a test. They use tiny tube feet and spines for movement and feeding. They graze on algae, helping to prevent algae overgrowth in rock pools.

Why it matters: Their long lifespans (up to 200 years) allow them to play a stable role in maintaining the ecosystem.

Rockpool Shrimp



Fact: These little creatures clean the rock pool by eating tiny bits of dead plants and animals.

Shrimp can see in many directions with their long eyes!

Question: What do you think shrimp talk about when they meet?

Understanding the Science Under the Sea

Shrimp act as scavengers, cleaning the pool by eating dead organic matter. Their compound eyes allow them to see movement from many directions, helping them avoid predators.

Why it matters: By recycling nutrients, shrimp contribute to the health of the rock pool ecosystem.

Spotted Goby
(Tiny Fish)

Fact: This small, quick fish blends into the rocks to hide from predators.

They often hop between pools when one dries out!

Question: How fast can you swim compared to a goby?

Understanding the Science Under the Sea

Gobies are small, agile fish that can survive in shallow, changing waters. Their coloration helps them blend in with the rocky environment, avoiding predators.

Why it matters: Camouflage and quick swimming are essential for survival in a habitat with many threats.

Sea Cucumbers

Fact: Sea cucumbers are like the vacuum cleaners of the ocean floor, eating sand and filtering out nutrients.

If they're in danger, they can squirt out their insides to scare predators away!

Question: Would you want to be as squishy as a sea cucumber?

Understanding the Science Under the Sea

Sea cucumbers feed by sifting through sand and filtering out organic particles, which they digest. When threatened, they eject their internal organs, which later regenerate, to distract predators.

Why it matters: This behaviour helps them survive attacks while also cleaning the ocean floor.

Barnacles

Fact: Barnacle's glue themselves to rocks and use their feathery legs to grab food from the water.

Once they stick, they never move again!

Question: If you could stick to anything, where would you stick?

Understanding the Science Under the Sea

Barnacles are crustaceans that glue themselves to surfaces with one of the strongest natural adhesives. Their feathery legs, called cirri, sweep food particles from the water into their mouths.

Why it matters: Once attached, they never move again, creating a stable and protective life on rocks or other surfaces.

Challenges

Rock pools change all the time! They can get warm in the sun or filled with fresh water when the tide comes in.

Life in a rock pool isn't easy! Animals must survive waves, sunlight, and predators.

Conservation

Visit your local SEA LIFE Aquarium to discover how we are helping to protect these intricate habitats in our Rockpool zone!

Remember, the next time you are at the beach, be gentle when exploring rock pools! Every creature, big or small, plays a big part in keeping the ocean healthy.