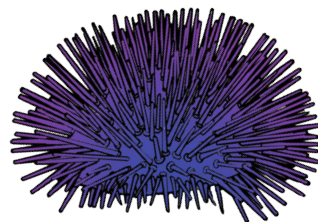


Shore Life Fact File

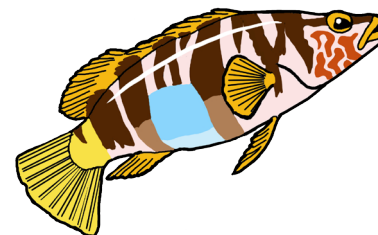
Background information for the teacher about each living organism (or groups of organisms) featured in this activity.



Sea urchins
(Rizzi)

Sea urchins live among rocks and are covered in spines which protect them from predators. Besides spines, an urchin also has hundreds of very thin tentacles with suckers at the end. The urchin uses these like legs to move about. The urchin's mouth is at the bottom. By day, urchins snuggle into holes that they scrape out with their sharp mouths; at night they come out to graze on algae covering the rocks. If food lands on an urchin's spines, the tube-feet pass the food down to the urchin's mouth. An urchin also breathes through its tube feet. Sea urchins can live up to 30 years!

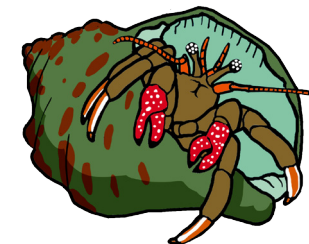
We have two common species of sea urchin around our shores: the rock-urchin which can be greenish, brownish or purplish, and the black sea-urchin, which is always black. It is a pity that many beach-goers only see these creatures as a source of casual snacking, bringing them ashore and breaking them open for the tiny orange organs inside, which are considered edible.



Painted Comber
(Burqax)

There is a reason for the striking colours and pattern of the painted comber: this is a territorial fish that leads a solitary life rather than stay in groups, so the bright blue spot and yellow tail is most likely a message for other painted combers to keep away. This fish is easy to see if you look among rocks. It likes to stay still, sometimes tilted upwards, keeping a lookout for other combers as well as for possible food: smaller fish and crustaceans (crabs, shrimps), sometimes worms and snails. You will not see this fish nibbling at the seaweed as it is a carnivore. Sometimes it gets a free snack by eating leftover scraps from octopus meals.

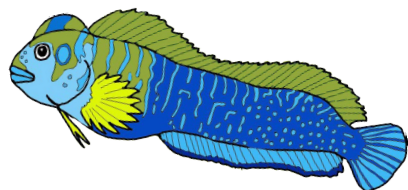
The painted comber is a hermaphrodite, which means it has both male and female sex organs. The eggs are laid among the rocks, close to the shore. This beautiful fish is mainly found in the Mediterranean.



Hermit Crab
(Grani tal-Bebbuxu)

Hermit crabs are fascinating creatures that have a habit of wearing – and living in – old empty snail shells, so it is not surprising that many people mistake them for snails. Hermit crabs take up residence in snail shells in order to protect their soft bodies from predators, since they have no hard protection of their own as other crabs do. It is only the legs and outer parts of the hermit crab's body that are hard shelled. The part hidden inside is soft and curly, and is used as an anchor to hold the snail shell tightly as if it were the crab's own. When the crab grows too big for the shell, it finds a bigger one, slips quickly out of the old one and into the new.

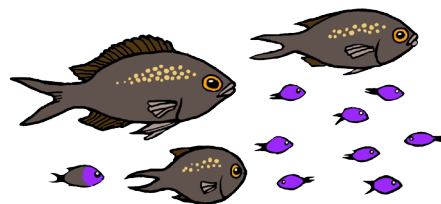
When you see a snail shell moving, look for the tell-tale legs underneath and you will know it's not a snail! These animals crawl over rocks eating anything small, even bits of dead fish or plants, and generally help to keep the place clean.



Blennies (Budakkri)

These small fish are perfectly adapted for life in shallow water. Wave action is strong close to the shore but blennies can grip the rocks and avoid being washed away thanks to specialised fins that are modified into thin, almost hand-like limbs. You can see several kinds of blennies popping out of a hole among rocks and 'sitting' still. Some are curious and will check out your finger if you approach slowly. Blennies eat invertebrates that they find in shallow water crawling over rocks, as well as seaweed. Blennies that live in rock pools on the shore can even hop out of the water and 'walk' short distances over the rocks to another pool. This happens when a rock pool gets too small, hot or salty due to evaporation.

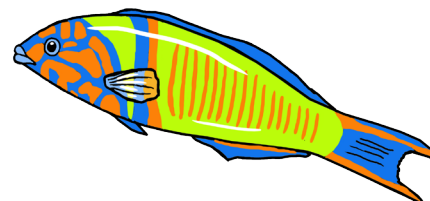
The blenny in the picture is the Peacock Blenny (Budakkra tal-Għalla). It is common in rocky and pebbly shores, patrolling the stones and pebbles just below the water line.



Damselfish (Ċawla)

Damselfish are dark brown (hence Maltese name) with no striking colours or pattern, but it is still unmistakable because of its deeply forked tail and also because it's often seen in shoals of hundreds. In summer they are often accompanied by hundreds of tiny electric-blue babies, who lose this vivid colour as they grow. Damselfish live near the surface in shallow waters near both rocky and sandy shores, as well as over Neptune grass meadows. They eat plankton, microscopic plants and animals that float near the surface. This is why damselfish swim around the surface rather than among rocks looking for snails.

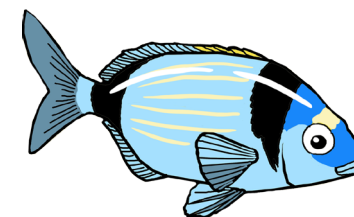
Damselfish mate in summer. The male chooses a location for his 'nest' and lures the female to lay eggs there. After she lays, he chases her away and carefully looks after the eggs by fanning water over them and defending them from predators.



Ornate Wrasse (Lhudi)

This striking fish has the kind of colours you usually see in tropical fish. Indeed, it's the only species of its kind that is found in the Mediterranean (the other wrasses live in the tropics). It stays mostly in very small groups but is also often seen alone among rocks, looking for snails and small crustaceans such as shrimps.

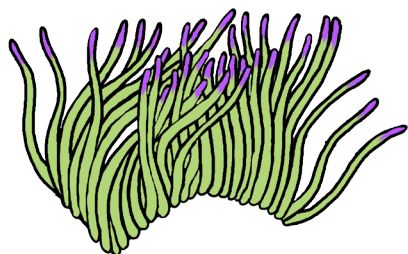
The ornate wrasse has an interesting life history: when young, this fish is female with bright blue borders around orange-yellow squares and a distinctive black spot on its back. But as the wrasse grows older, it becomes a male, loses the black spot and changes the pattern of its blue and yellow colours, while growing two outer points on its tail. It is the females that stay in small groups, because the males become very territorial and chase other males off their patch.



Two-banded Sea Bream (Xirgien)

There are several types of sea bream, and all have the characteristic flattish body with a high curved back. Sea bream stay alone or in small groups rather than in shoals. They eat small snails, worms and crustaceans (shrimps and crabs). Sea bream are very edible and some species have been fished to beyond a level where their population can recover. Apart from commercial fishing, this fish is also a target of spearfishers, who do great damage in our small bays where local fish should be allowed to live, grow and be enjoyed by bathers.

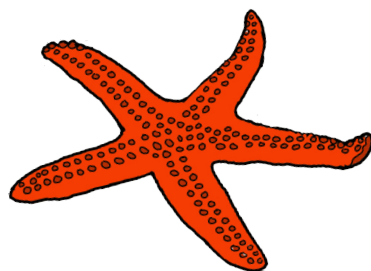
The Two-banded Sea Bream is easy to tell from the other breams because it's the only one with two black bands across its body. It's common around our shores and likes to stay alone or in small groups.



Anemone
(Artikla)

Anemones are relatives of jellyfish and, like them, they have stings and catch their food by stinging small creatures that touch their tentacles. Anemones spend most of their life attached to a rock waiting for small fish to pass close enough to get trapped. We have a few species around our shores, and the most common is the snakelocks anemone (artikla ħadra) pictured here. It is harmless to the skin of our hands and feet.

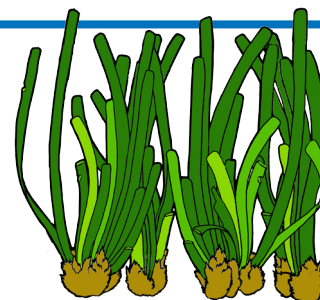
The body of an anemone is made of an adhesive base (or foot), a cylindrical body, and a forest of tentacles around a central mouth. The tentacles are triggered by the slightest touch, firing a microscopic harpoon-like filament into their victim, which paralyses it. The tentacles then pass the prey down to the mouth. There are many different species of anemones around the world, many with amazing colours.



Starfish
(Stilla)

These beautiful icons of shore life are related to sea urchins. They move around by means of tiny suckers on the underside of their 'arms'. Most starfish have five arms, but some have more. The one in the pictured is the common starfish (stilla ħamra), which is red and has five arms. Their bright colour makes them very visible to predators, but they are not as soft as they look, as their skin is covered with a layer of tiny hard spines.

A starfish's mouth is on the underside of its body. The mouth can be extended forward, a useful trick when tackling clams and mussels, which are the starfish's main food. The starfish wraps itself around the shell and forces it to open slightly, then extends its mouth into the opening and eats the soft flesh inside. Starfish can live up to 30 years and if an arm is broken off (or eaten by a predator) it can grow it back, though it may take a year. At the end of each arm is an 'eye' that can detect light or dark.

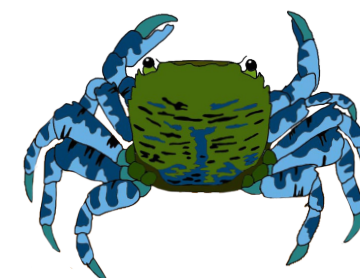


Neptune Grass
(Alka jew Posidonja)

Neptune grass is an important part of the sea ecosystem. Its root system stabilises the seabed, holds the sand in place and creates a habitat for many marine organisms. Patches of sea grass – or posidonia meadows, as they are called – produce as much oxygen as rainforests, and provide habitat and food for many fish and invertebrates, and shelter for their young. Neptune grass is endemic to the Mediterranean Sea.

Following a storm, large amounts of posidonia are often washed up on our beaches. Although they may look unsightly, these mounds protect the beach from erosion. Although we call it *alka* in Maltese, neptune grass is not an alga but a flowering plant.

As a community, posidonia meadows are among the largest, slowest growing, and longest-lived organisms in the world: some meadows can be 1000s of years old! Unfortunately, they are today threatened by coastal construction, trawling, fish-farming, pollution, dredging and climate change.



Shore Crab
(Grani tax-Xatt)

A very shy animal, moving quite fast if you approach it, and squeezing into tight cracks to hide. Its colour blends very well with the rocks and algae, providing excellent camouflage and protection from predators. It hunts mostly at night, and eats both animal and vegetation material. It can do this because it has mouthparts that can scrape and tear alga as well as claws that can grab and tear flesh off smaller animals (shellfish, snails, etc.) Despite what many people believe, crabs do not only walk backwards: they can walk in all directions, but sideways is their fastest.

There are several kinds of crabs living in shallow waters around our shores, but the Mediterranean shore crab is the one we are most likely to see as it often walks out of the water and scuttles about. The others usually stay below the surface.