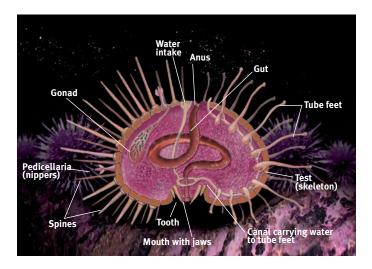


Phylum: Echinodermata

With *echino* meaning spiny and *derm* meaning skin, 'echinoderms' are spiny-skinned animals. All members of this group have a skeleton consisting of hard plates under the skin, giving them a spiny texture. They have water-filled 'tube feet' which may be used for locomotion, respiration and collecting food.

The majority of echinoderms have their mouth on the underside of their body and their anus on the upper side of their body. Echinoderms are also 'radially symmetrical' – their body can be divided into radial parts, like rays extending out from the centre.



Echinoderms are divided into five groups (classes):

Asteroidea

Now referred to as sea stars, these star-like creatures were once known as starfish. Often brightly coloured, these echinoderms consist of five or more arms radiating out from a central disc, an eyespot at the tip of each arm, a mouth under the centre of their body and an anus in the centre on their upper side. Their tube feet, which in most species end in suckers, are set in grooves along the undersides of the arms.

Echinoidea

Meaning spine-like, echinoidea refers to a group of animals more commonly known as sea urchins. Sea urchins consist of a rounded shell, called a test, covered with moveable spines. These echinoderms use their spines to help them move

around as well as protecting them from predators. Between the spines are rows of tube feet and pedicellariae, nippers on the end of tube feet that keep the urchin's surface free of rubbish and small creatures.

Ophiuroidea

Brittle stars have snake-like arms radiating from the central disc. They are called brittle stars as their arms break off easily, but can later regenerate. Like sea stars they have a mouth on their underside but lack an anus. A brittle star's tube feet also lack suckers. They use their arms to move and are much faster than a sea star.

Crinoidea

Feather stars are a lily-like echinoderm, that catch food with their many feathery arms. These 'feathers' are modified tube feet that help sweep the food down each arm into their mouth, which is located on the upper side of the central disc. Feather stars move around and attach themselves to rocks using appendages called cirri and can even swim by waving their arms.

Holothuroidea

These sausage or cucumber-shaped animals are known as sea cucumbers. They lie on their side on the sea floor and move using their tube feet or by squeezing up and then stretching out their bodies, like a caterpillar.

