

Echinodermata:

Domain – Eukaryote

Kingdom – Animalia

Phylum – Echinodermata

Class: Asteroidea

ID: starfish

Class: Crinoidea

ID: sea lilies & feather stars

Class: Echinoidea

ID: sea urchin, sand dollars

Class: Ophiuroidea

ID: brittle star & basket stars

Class: Holothuroidea

ID: sea cucumber

Important:

Phylum name means – “Spiny Skin”

Habitat - Marine

Coelom - eucoelomate

Symmetry / Body Plan - Symmetry –bilateral & pentaradial (depends on developmental stage), and No head

Cellular Organization – Tripoblastic

Reproduction – Dioecious

- Bipinnaria larva

Digestion – the coelom circulates gases and nutrients throughout the body.

Circulation – gas exchange occurs through skin gills, with no true respiratory system or circulatory system.

Nervous system – No cephalization (no brain) and no centralization of nervous control, Nerve ring present.

Key characteristics / special adaptations / unique feature

- Deuterostome radiation (discuss meaning)
- Pentamerous, with endoskeleton composed of ossicles.
- Water vascular system