

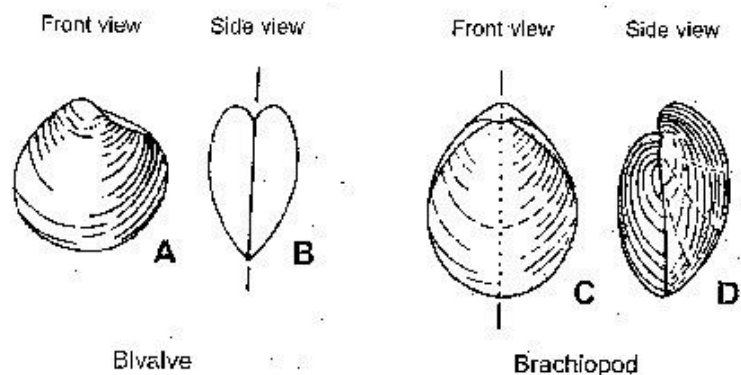
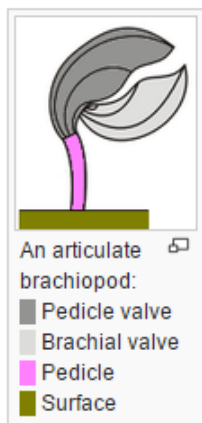
Phylum Brachiopoda (pg. 1 of 4)

Brachiopods are a phylum of marine animals that have hard "valves" (shells) on the upper and lower surfaces. Most species of brachiopod went extinct during the P–T extinction over 250 million years ago, but many survive today.

Brachiopod valves are hinged at the rear end, while the front can be opened for feeding or closed for protection. Articulate brachiopods have toothed hinges and simple opening and closing muscles, while inarticulate brachiopods have untoothed hinges and more complex muscles. In a typical brachiopod a stalk-like pedicle projects from an opening in the hinge or from a hole in the larger valve, attaching the animal to the seabed but clear of silt that would obstruct the opening.

Brachiopods have a mantle that secretes and lines the shell, and encloses the internal organs. The body occupies typically about one-third of the internal space inside the shell, nearest the hinge. The rest of the mantle encloses a water-filled space containing the lophophore, a crown of tentacles that filters food particles out of the water. In all species the lophophore is supported by cartilage and by a hydrostatic skeleton.

The lophophore filters food, mostly phytoplankton, out of the water. From there the food is transported in succession to: the grooves along the bases of the lophophore's tentacles; the mouth; pharynx; oesophagus; and finally the stomach, where the food is digested. Nutrients are transported from the stomach throughout the coelom (main body cavity), including the mantle lobes, by cilia. The wastes produced by metabolism are broken into ammonia, which is eliminated by diffusion through the mantle and lophophore.



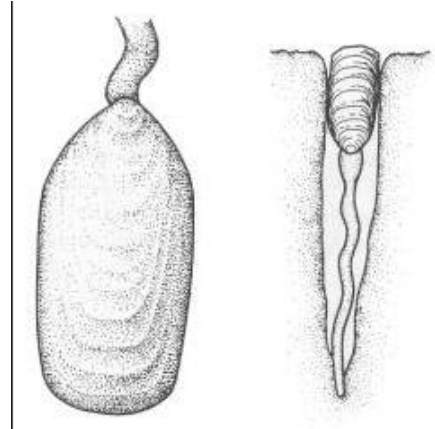
Phylum Brachiopoda (pg. 2 of 4)

Class Inarticulata

Genus *Lingula*

Inarticulate species lack interlocking teeth and muscles to open and close the valves.





Class Articulata

Genus *Atrypa*



Articulate Brachiopod

Genus *Composita*



Phylum Brachiopoda (pg. 3 of 4)

Articulate Brachiopod

Genus *Juresania* *



Articulate Brachiopod

Genus *Leptaena*



Articulate Brachiopod

Genus *Mucrospirifer*



Phylum Brachiopoda (pg. 4 of 4)

Articulate Brachiopod

Genus *Platystrophia*



Articulate Brachiopod

Genus *Rafinesquina*



Articulate Brachiopod

Order Rhynchonellida

