

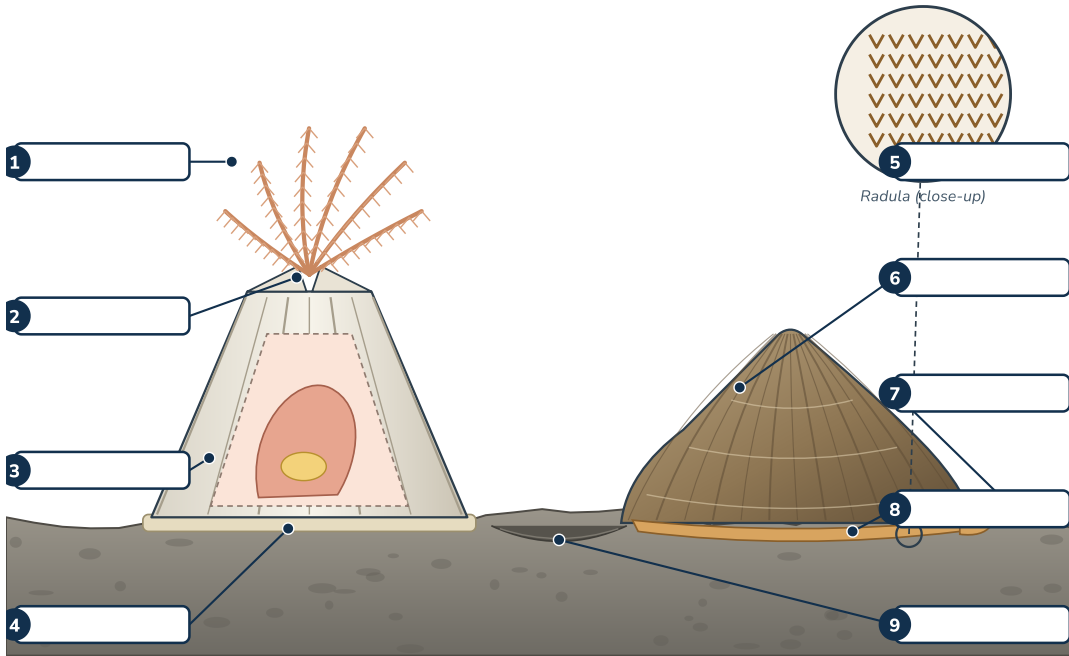
LEARN WITH TAYO • MARINE BIOLOGY • MODULE 3

Barnacle and Limpet

Semibalanus balanoides (acorn barnacle) and *Patella vulgata* (common limpet)

Look at the diagram. Write the correct name from the word bank in each numbered box.

base cement | cirri | home scar | limpet shell | muscular foot | operculum | radula | shell plates | tentacle



Did you know?

- A barnacle is a **crustacean**, related to crabs and shrimps. A limpet is a **mollusc**, related to snails.
- A limpet's radula teeth contain **goethite**, an iron mineral. They are the strongest natural material ever tested.
- A limpet can clamp down with a force of about **75 times its own weight**.
- Baby barnacles swim as plankton, then **glue their heads** to a rock for life.
- Limpets can live for **10 to 20 years**.

About Barnacles and Limpets

Both animals live on the **upper and middle rocky shore**, where they are covered by the sea at high tide and left in the air at low tide.

Barnacle: cemented head-down to the rock inside a wall of plates. Under water the operculum opens and the cirri sweep in plankton; at low tide it shuts, trapping water inside.

Limpet: creeps on its foot, scraping algae with its radula. Before low tide it returns to its **home scar**, a dip that fits its shell exactly, and clamps down.

Dangers: dog whelks drill into barnacles; birds such as oystercatchers prise limpets off rocks.

Where on the shore?

Splash zone

Upper shore

Barnacles and limpets

Middle shore

Barnacles and limpets

Lower shore

Always under water

Tide fact: most British shores are covered and uncovered **twice a day**. The biggest ranges are at **spring tides**, around the full and new moon.

Functions of Each Part	
Part	Function
Cirri	
Shell plates	
Operculum	
Base cement	
Limpet shell	
Muscular foot	
Radula	

Hint: use the diagram, the About box and the Did you know? panel to fill in the Function column.

Answer the Questions

1 Barnacles and limpets look similar. Which animal group is each one in?

2 Explain how a barnacle feeds when the tide is in.

3 What does a barnacle do when the tide goes out, and why?

4 What is a home scar and how does it help a limpet survive low tide?

5 Name one predator of each animal.

6 Stretch: a limpet clamped to rock is shaped like a low cone. Explain how this shape helps it survive crashing waves.