



Identifying Fossils in the Moycullen landscape



BRACHIOPOD



How to recognise them - White circles, semicircles,

Fossil Info - Brachiopods are ancient sea creatures that have lived in Earth's oceans for more than 500 million years. Unlike clams, their two shells are arranged top-and-bottom, and their shape once earned them the nickname "lamp shells," because they look like old-fashioned lampshades. They anchored themselves to the seafloor—often with a stalk called a pedicle—and fed by filtering tiny food particles from the water using a special organ called a lophophore. Today, brachiopods are much less common than they once were. Fossils are often found as single shells because, after the animal died, the ligament holding the shells together rotted away, letting waves and currents scatter them before they were buried.

Brachiopods are older than dinosaurs... and even older than trees!

CORAL



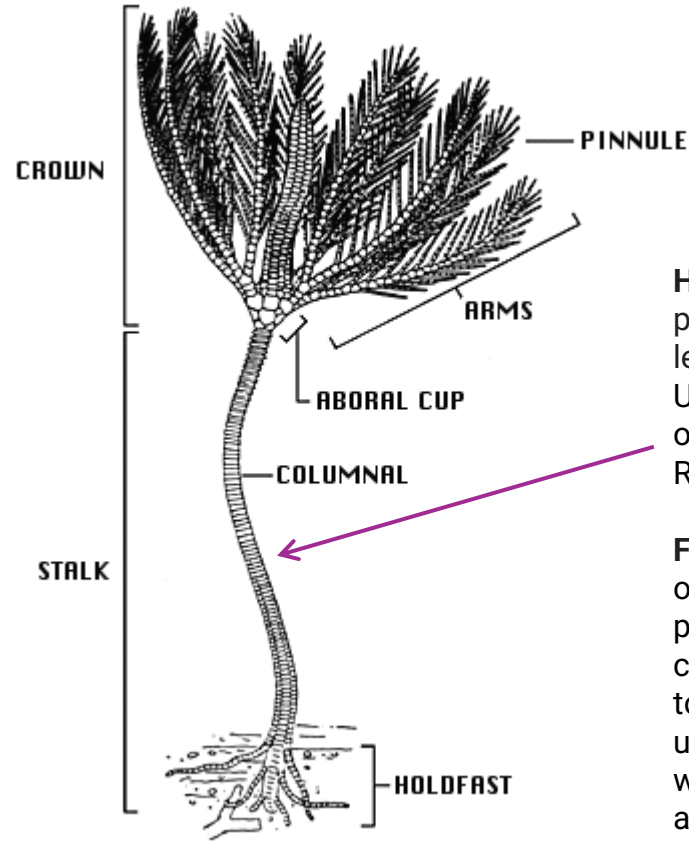
How to recognise them – polka dots (Colonial coral) and spoked wheel (Singular)

Fossil Info - Corals are marine animals, closely related to jellyfish and sea anemones. Like anemones, they have many tentacles, but they grow atop a hard skeleton. Some species live alone—these are **solitary corals**.

Others form vast communities, from hundreds to hundreds of thousands of individuals. These **colonial corals** join together by secreting calcium carbonate, creating a shared skeleton that can last for centuries. Corals use their tentacles to capture tiny food particles drifting in the water.



CRINOID



How to recognise them - Small circular plates shaped like polo mints (10 mm or less). This image from Cambridge University highlights the position of the ossicles which occur in abundance on the Rocks Road in Moycullen.

Fossil Info - Crinoids are marine animals, often called *sea lilies* (though they are not plants!). Millions of years ago, fossil crinoids from Ireland anchored themselves to the sea floor with a stalk that could grow up to 1.5 metres long. At the top of the stalk was a cup-shaped body with long, feathery arms. These arms opened like an umbrella to catch tiny food particles drifting in the water.

Their skeletons were made of small circular plates called *ossicles*, joined by soft tissue. After the animal died, the tissue decayed, and the plates often scattered. These ossicles, usually 4–10 mm across and shaped like tiny rings, are the most common crinoid fossils. Sometimes the plates stayed stacked together, looking like a pile of “polo mints” turned to stone.

AMMONITE



How to recognise them – Coiled shape, with ridges or grooves running along the spiral. Some look like they have been sliced open to show beautiful patterns inside

Fossil Info - Ammonites were spiral-shelled sea creatures that lived between 201 and 66 million years ago, during the Jurassic and Cretaceous periods. They were relatives of modern squid, octopus, and the nautilus, but had large, coiled shells divided into chambers. The animal lived in the last chamber, while the others held gas or fluid to help it float and move, like a submarine. Ammonites ranged from tiny species just 2 cm across to giants over 2.5 m wide. Their shells came in many shapes, sometimes with ribs, spines, or knobs for strength, camouflage, or display. They fed on plankton, plants, and small sea animals. Ammonites became extinct along with the dinosaurs, but their beautiful shells are common as fossils.