

## FUN FACT

Dog whelks produce a beautiful red-purple dye, which was used by monks to illustrate manuscripts in early Christian Ireland.

# Dog Whelk

**Species name: *Nucella lapillus***

Dog whelks are a species of carnivorous gastropod (sea snail) that live on the rocky sea shore around Ireland's coasts. They generally have a creamy white/grey shell, but the colour can vary greatly. They are mostly found on the middle-shore, and must adapt to the harsh conditions of this environment. Their habitat is constantly changing as the tide goes in and out, exposing them to a variety of threats such as predation by crabs when the tide is in, versus predation by birds and risk of desiccation (drying out) when the tide is out! Some dog-whelks who stay closer to the low tide-line develop "teeth", small grooves on the base of their shell, as this makes it harder for crabs to dislodge them; while dog whelks on the upper shore are less likely to be attacked by crabs, and so do not develop these teeth. Dog whelks are predators themselves; they mainly feed on smaller herbivorous molluscs such as mussels, barnacles, and periwinkles. The dog whelk attacks its prey by boring a hole through the animal's shell and using a chemical secretion to dissolve the prey inside the shell into a soup, it then sucks out the insides!

### Actions:

- Go on an outing to the rocky seashore and explore the different tidal zones of the sea-shore and the variety of plants and animals that live there. Make a map showing the species you find in each zone; keep a look-out for any empty shells and compare the sizes, shapes and colours of these. Never move or remove any living animals or plants!
- Our oceans are becoming more acidic, as they absorb the excess carbon dioxide being released into the atmosphere as humans burn more and more fossil fuels. This ocean acidification is bad news for shelled animals like dog whelks - as well as for the corals that form important coral reef ecosystems around the world - because the high acidity causes the calcium carbonate which forms shells to weaken and break. Why not carry out a class project investigating ocean acidification, what causes it and how it affects marine life? Research ways in which you can reduce your carbon footprint!

