

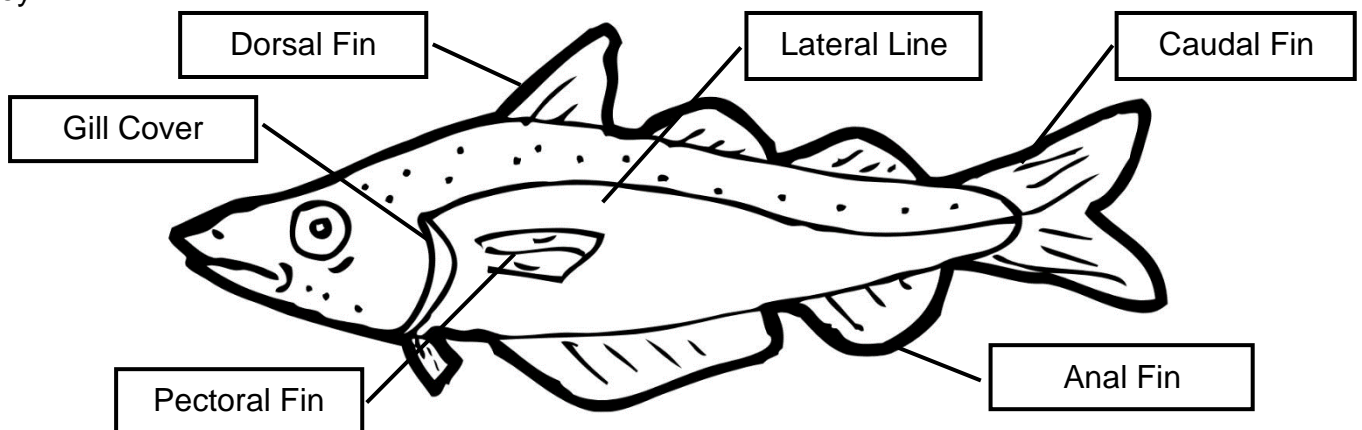
## Adaptations of Bony Fishes

### Flotation

Bony fish are heavier than water because of their internal skeleton. To keep them from sinking, they have developed a thin walled, torpedo shaped organ called the **swim bladder**. This organ, which is filled with gases, allows the fish to float at various depths with no pressure related problems and little effort. This fish can vary the amount of gas in the bladder by gulping air or by diffusing gases from the blood into it.

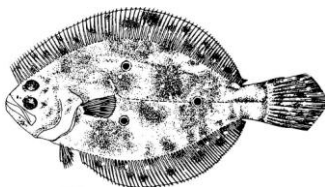
### The Lateral Line

One of the fish's most important sense organs is its lateral line which allows the fish to hear and feel. It is made of a series of nerve cells arranged in a line running the length of the fish's body. These cells detect the movement of pressure waves around the fish and therefore they can detect their own movement through the water, water currents, and the movements of both predators and prey.

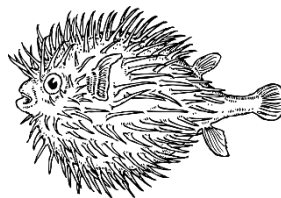


### Body Shape

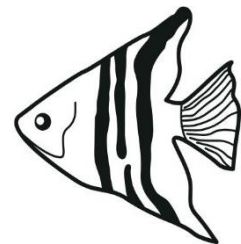
Fish come in all shapes and sizes, and the shape of the fish's body depends on its survival skills and lifestyle. Broad and flat fish are bottom feeders and live on or below the sand. Streamlined and torpedo-shaped fish are fast swimmers as their shape creates less water resistance and drag. Compressed, tall and thin fish swim slower with bursts of speed and can easily enter vertical crevices. Round fish are slow swimmers but generally have spines or toxins which protect them from predators. Elongated and eel-like fish can swim into and through small crevices in coral reefs or rocks.



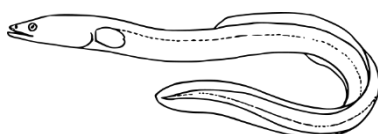
Broad and Flat



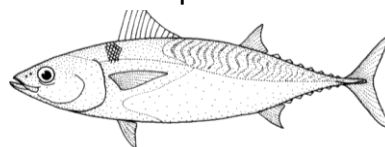
Round with spines



Compressed and Tall



Elongated and Eel-like



Streamlined and Torpedo-shaped