**MAMMALS**

There are more than 4,000 different species of mammals. The smallest is the hog-nosed bat, which weighs 0.05 ounces. The largest is the blue whale, which can be 100 feet long and weigh 150 tons. But whether they live on land or water, all mammals share some common characteristics.

All mammals:

* Are vertebrates (which means they have a backbone or spine).
* Are endothermic. Also known as “warm-blooded,” endothermic animals regulate their own body temperate which allows them to live in almost every climate on Earth.
* Have hair on their bodies.
* Produce milk to feed their babies. This allows them to spend more time with their young and teach them important skills they need to survive on their own.

**BIRDS**

Birds are the only animals that have feathers, which are made of keratin, just like your hair and fingernails. A bird’s wings have the same bones as a human arm, but they are arranged differently. Some of the bones in a bird’s skeleton are hollow. This makes the bird light enough to fly. There are more than 9,800 known types of birds. They range in size from the bee hummingbird (2 ¼ inches long) to the 9-foot-tall ostrich.

All birds:

* Are vertebrates (which means they have a backbone or spine)
* Are endothermic. Also known as “warm-blooded,” endothermic animals regulate their own body temperature which allows them to live in almost every climate on earth.
* Have feathers
* Lay eggs with hard, waterproof shells. The parent birds incubate the eggs until they hatch, and care for their young.

**REPTILES**

There are four main groups of reptiles: turtles and tortoises; lizards and snakes; crocodiles and alligators; and the tuatara. Many reptiles spend most of their time on land, but some spend a great deal of time in the water. Reptile species can be found in all types of habitat except polar ice and tundra.

All reptiles:

* Are vertebrates (which means they have a backbone or spine)
* Are ectothermic. Also known as “cold-blooded,” ectothermic animals cannot regulate their own body heat, so they depend on warmth from sunlight to become warm and active. If they get too hot, they have to find shade or a burrow to help them cool down.
* Are covered with scales
* Have lungs for breathing

**AMPHIBIANS**

Amphibians are animals that live part of their lives in water and part on land.  They usually have soft, moist skin that is protected by a slippery layer of mucus. They also tend to live in moist places or near water to keep their bodies from drying out. There are three main groups of amphibians: caecilians; salamanders, newts, and mudpuppies; and frogs and toads.

 All amphibians:

* Are vertebrates (which means they have a backbone or spine)
* Are ectothermic. Also known as “cold-blooded,” ectothermic animals cannot regulate their own body heat, so they depend on warmth from sunlight to become warm and active. If they get too hot, they have to find shade or a burrow to help them cool down.
* Breathe through their skin.
* Go through metamorphosis. Young amphibians hatch from eggs, but do not look like their parents. As they develop, their body shape changes.

**FISH**

Fish occupy an almost endless variety of habitats. Their adaptations and responses to the environment are often difficult to study and understand. Most fish live under water, in oceans, rivers, lakes, ponds, or aquaria. Some species, such as mud skippers and lung fish, are able to survive out of water for long periods and can breathe both above and below the water. The smallest reef fish is a goby that is one centimetre long and weighs less than a gram. The largest bony fishes of the reef are giant cod and grouper that weigh up to 400kg.

All fish:

* Live in water.
* Are vertebrates (which means they have a backbone or spine)
* Breathe using gills. They absorb oxygen through the gills.
* Are ectothermic. Almost all fish are cold-blooded. Two of the exceptions are the tuna and the Pacific salmon shark, which can raise their body temperature to some degree.
* Some fish have scales.