SCIENCE:LIVING THINGS AND THEIR HABITATS

Key Vocabulary

identify, identification, classify, classification, division, family, genus, species, reason, common characteristics, distinguishing characteristics, leaves, shape, size, colour, backbone, wings, jointed legs, cased, transparent, antennae, shell, segments, explain, group, small, harmful, beneficial (helpful), colony, colonies, mould, multiply, historically, grouping, Aristotle, Carl Linnaeus, kingdom, Phillip Miller, John Ray, botany, conventions

Working Scientifically

Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro- organisms, plants and animals.

Reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations in oral and written forms such as displays and other presentations.

Must – know knowledge

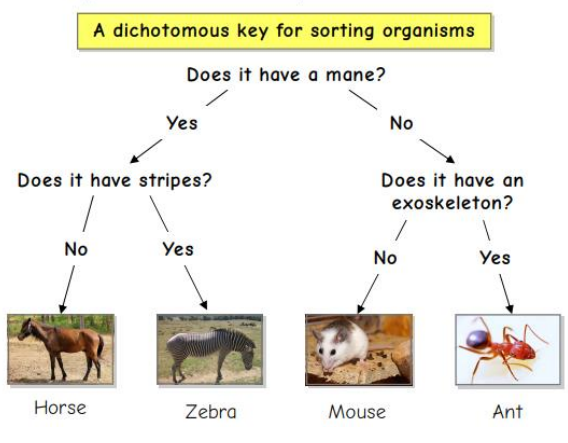
Evolutionary taxonomy is the most modern way of grouping living things. In evolutionary taxonomy, all species are placed in one group. This group is then divided into smaller and smaller groups, called taxonomic ranks. The taxonomic ranks are called (in order) domain, kingdom, phylum, class, order, family, genus and species.

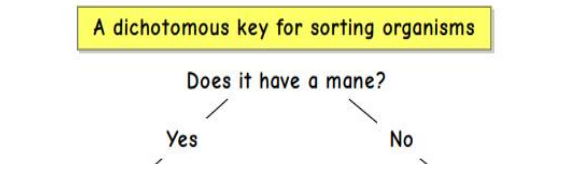
A dichotomous key is a way of classifying and identifying objects, such as organisms. It consists of a series of questions, each of which have exactly two answers.

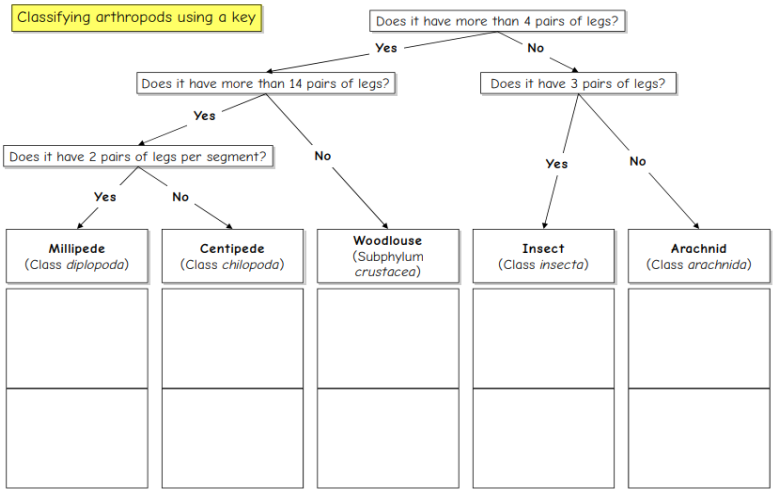
Carl Linnaeus was a Swedish scientist. He is famous for the classification system that he introduced, called Linnaean taxonomy (taxonomy means classification).Linnaeus placed everything into three main groups, or kingdoms - animals, vegetables and minerals (rocks). Each of these kingdoms was subdivided into further groups, or ranks.

One way of grouping animals is to classify them as vertebrates or invertebrates. All vertebrates share similar features because they evolved from a common ancestor about half a billion years ago. Animals, which are not vertebrates, can be classified as invertebrates.

Making a classification key







Experiments:

How can you grow your own micro-organism?