Branches of Science

Natural science is the science of the natural world. It is the experimental, observable, measurable aspects of our world and things beyond our world. The other group of sciences are the social sciences which look at human behaviours and societies. They are concerned with civilisation and the more human parts of the world. The natural sciences are divided into three key areas and within those areas are subareas and within those subareas are numerous sub-subareas.

The three main subareas are **Life Sciences**, **Physical Sciences** and **Earth Sciences**. These are this author's opinion and others may rank other sciences as part of the main branches. Other branches may also include astronomy, physics, chemistry and biology.

Life Sciences are to do with living things, they range from the very small in microbiology (living things and parts of living things that have to be viewed using a microscope) to the very large in ecology (whole sets of different living things interacting together in ecosystems). The main subareas are:

- **Botany** is the study of plants and plant life.
- **Zoology** is the study of animals and animal life.
- **Genetics** is the study of inheritance and how features arise from genes and interaction of genes and the environment.
- **Medicine** is the study of treating and preventing diseases.

Physical Sciences are to do with inanimate objects (non-living things) or concepts such as energy and electricity. The main subareas are:

- **Physics** is the study of the nature and properties of matter (what all things are made of) and energies (like movement, electricity, magnetism, light, heat and sound).
- **Chemistry** is the study of the substances matter is made of and what changes happen to those substances when the environment is changed in different ways.
- **Astronomy** is the study of celestial objects, space and the physical universe as a whole.

Earth Sciences are to do with our planet and how it changes. The main subareas are:

- **Geology** is the study of the physical side of the history of the Earth and focuses on the rocks and structural aspects.
- **Palaeontology** is the study of the life forms that existed in the past.
- **Oceanography** is the study of the oceans and seas.
- **Meteorology** is the study of our atmosphere and weather.

There is also the area of **Environmental Science** which is becoming more and more common as we look at how we are impacting on our earth and how we can change what we are doing for the better. This area involves studying aspects of **botany**, **zoology**, **physics** and **chemistry**.

There are hundreds of areas within these main branches and there are also new sciences being developed every day as we keep discovering new things and developing new technologies.

Below are just a few of these specific areas of science:

Acarology is the study of ticks and mites, **apiology** is the study of bees, **electrochemistry** is the study of relationships between electricity and chemicals, **batology** is the study of brambles (prickly shrubs like blackberries), **calorifics** is the study of heat, **caliology** is the study of birds' nests, **edaphology** is the study of soil, **emetology** is the study of vomiting, **eremology** is the study of deserts, **geogony** is the study of how the earth formed, **hyetology** is the study of rainfall, **ichnology** is the study of fossilised footprints, **kinematics** is the study of motion, **lithology** is the study of rocks, **metallography** is the study of the structure of metals, **nosology** is the study of the classification of diseases, **optics** is the study of light, **seismology** is the study of earthquakes, **herpetology** is the study of reptiles and amphibians, **barology** is the study of gravitation and **catacoustics** is the study of echoes.

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