

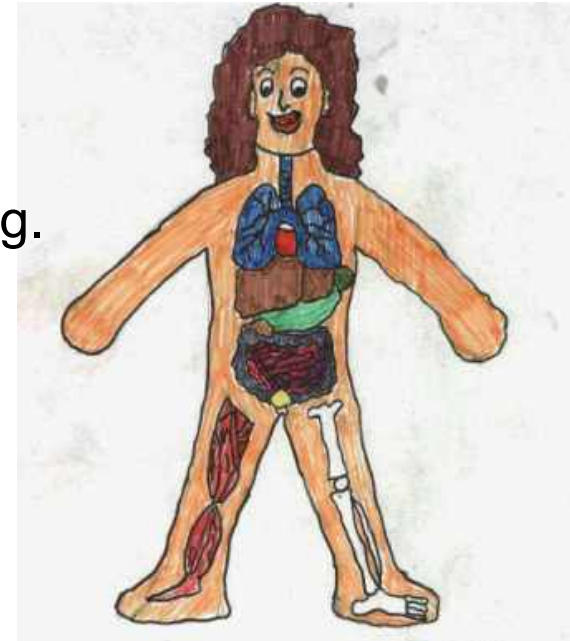
## Chapter 2 - Living Things

### What is Biology?

Biology is the study of living things.

An **organism** is another name for a living thing.

All living things are made of



There are approximately 50 million million cells in your body!

# The Characteristics of Living Things

We use **Mr. Nerrg** to remind us of these.



**M**ovement - All living things can move. (Even **plants** move!)

**R**espiration - is the way living things get energy.

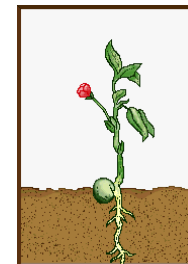
**N**utrition - is the way living things get and use their food.

**E**xcretion - is the getting rid of wastes made in cells.

**R**eproduction - being able to produce new individuals of the same type.

**R**esponse - the ability to react to changes in the environment.

**G**rowth - things grow when their cells divide.







## Types of Living things

There are 5 Kingdoms of living things.  
We need to know 2 of them for Junior Cert.

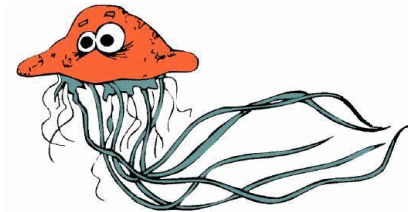


**(1) Plants** - These are made of roots, stems and shoots.

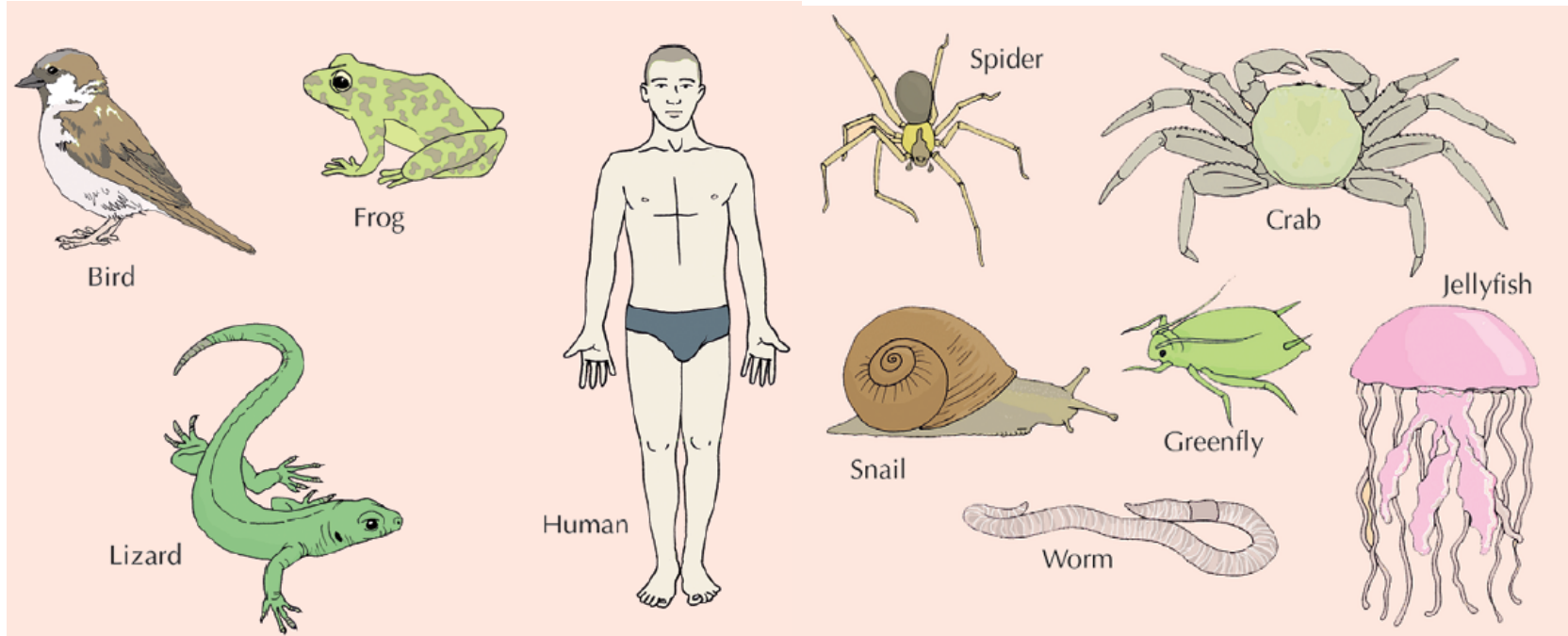
Plants can make their own food. By doing this they also give food to animals, give shelter and take Carbon Dioxide out of the air.

**(2) Animals** - There are many forms of animals from jellyfish to us.

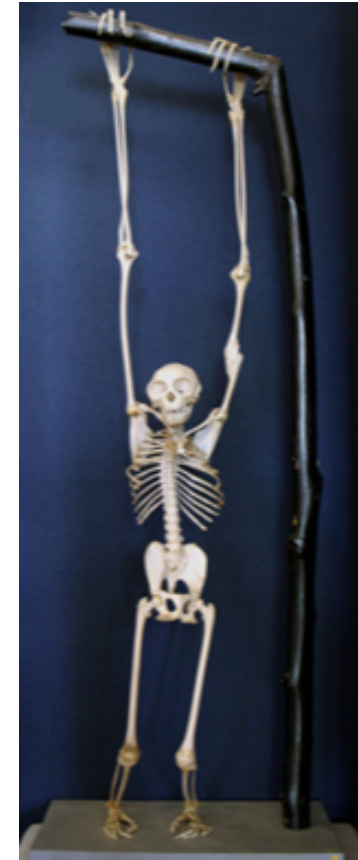
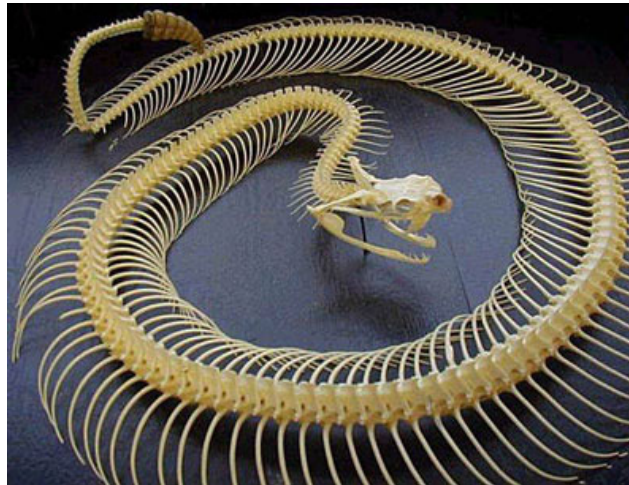
We divide animals into 2 groups,



**Vertebrates** - these are animals that have a backbone, and  
**Invertebrates** - these animals have no backbone.



# Vertebrates



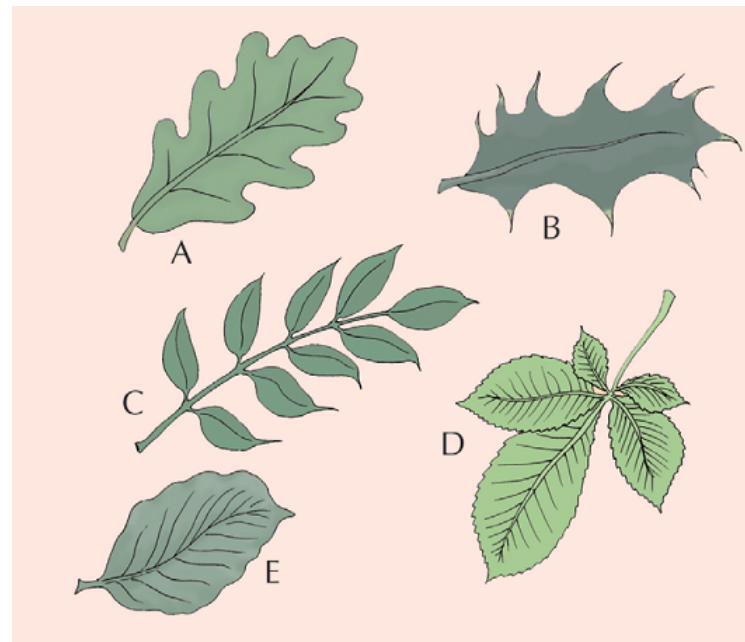
## How do we unlock the names of animals and plants?

### A Simple Plant **Key**



**A key is a list of questions that helps us identify a plant or animal.**

There is a sample key in your book on page 7.

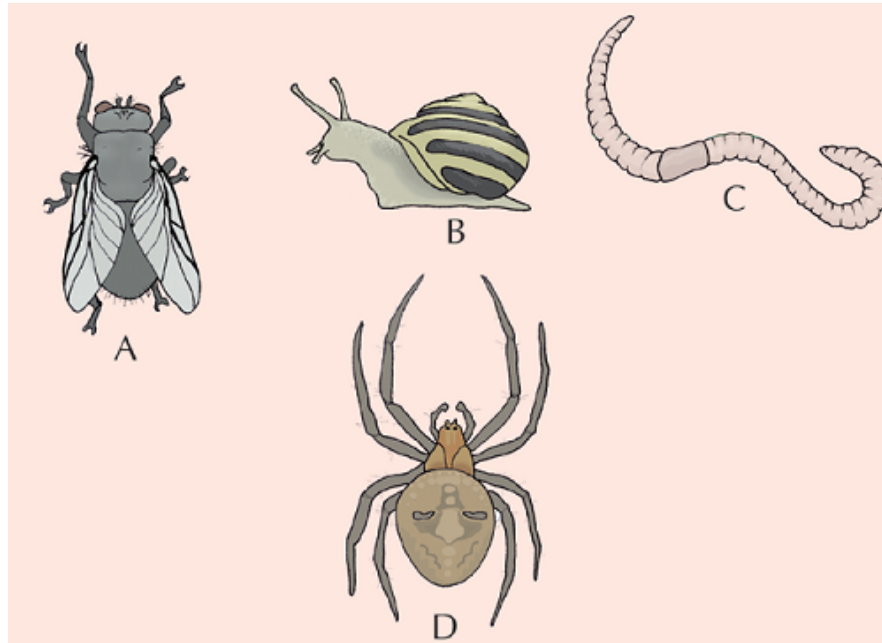




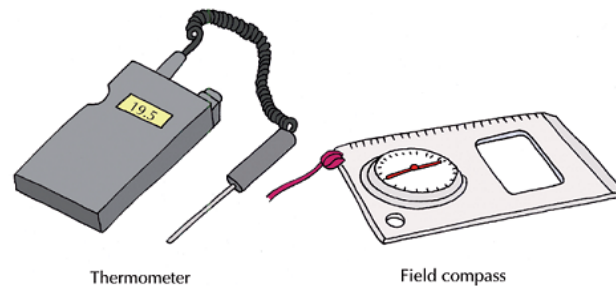
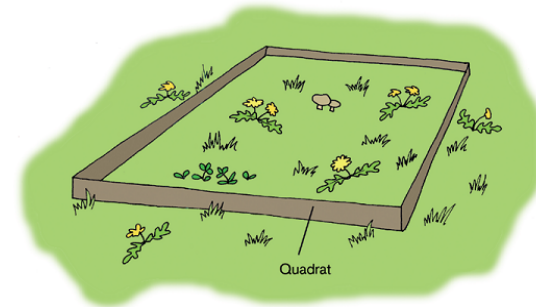
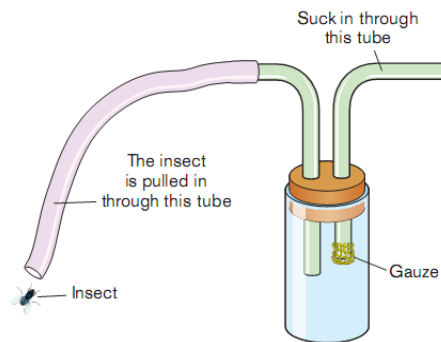
# Animal Key



Look at the questions on page 7 of your book.



**Mandatory Experiment** To investigate the variety of living things, identify them and classify them as plants or animals and split the animals into vertebrates or invertebrates.



Living Thing	Description
OAK	GREEN LOBES
HOLLY	SHARP EDGE
BEECH	SOFT EDGE
SPIDER	8 LEGS
WORM	NO LEGS
SQUIRREL	BIG TAIL

LIVING THING	P/A	REASON
DOG	ANIMAL	MOVING
SQUIRREL	ANIMAL	MOVING
OAK	PLANT	LEAVES
IVY	PLANT	LEAVES
BEECH	PLANT	LEAVES
WORM	ANIMAL	