SMRP KNOWLEDGE ORGANISER YEAR 4 —Classification and Living things

Science Knowledge

All living things do 7 life processes which include: **Movement, Respiration, Sensitivity, Growth, Reproduction, Excretion and Nutrition**. (MRS GREN below is used to help remember these)

Species become endangered because of loss/damage of habitat and/or lack of food.

There are billions of different kinds of living things (**organisms)** on earth.

Scientists have put these into groups according to their similarities and differences. This is known as **classifying**.

Vertebrates are animals with backbone inside their body . Major animal families include fish, amphibians birds and mammals.

Invertebrates do not have a backbone. Some have soft bodies (mollusc), like worms, slugs and jellyfish. Other invertebrates, like insects, spiders and crustaceans, have a hard outer casing called an exo-skeleton.

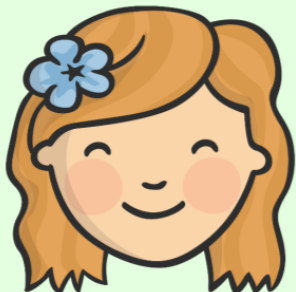| Word	Definition
life processes	The actions living things do to stay alive (MRS GREN)
respiration	All living things use oxygen in the air
sensitivity	All living things can respond to changes in their surroundings.
excretion	all living things get rid of waste – like when humans go to the toilet.
nutrition	animals will eat food for energy and nutrients, plants will suck up goodness from the soil and make their own food using sunlight.
classifying	to group things so that that they can be identified
organism	a living thing, animal or plant
environment	Areas that contain many habitats of living and non-living things
endangered	a species of plant or animal that is in danger of becoming extinct.
vertebrates	An animal with a back bone.
invertebrates	Animal without a back bone such as worm.
mollusc	An animal with a soft body (e.g. octopus) sometimes a hard shell to protect its body e.g. snail.

Characteristics of living things

MRS GREN

Movement
Respiration
Sensitivity

Growth
Reproduction
Excretion
Nutrition

Has the mini-beast got legs?

Yes — Has it got wings?
No — Has it got a shell?

No — Has it got more than eight legs?
Yes — Is it active at night?
No — Worm
Yes — Snail

Yes — Centipede
No — Spider
Yes — Moth
No — Butterfly

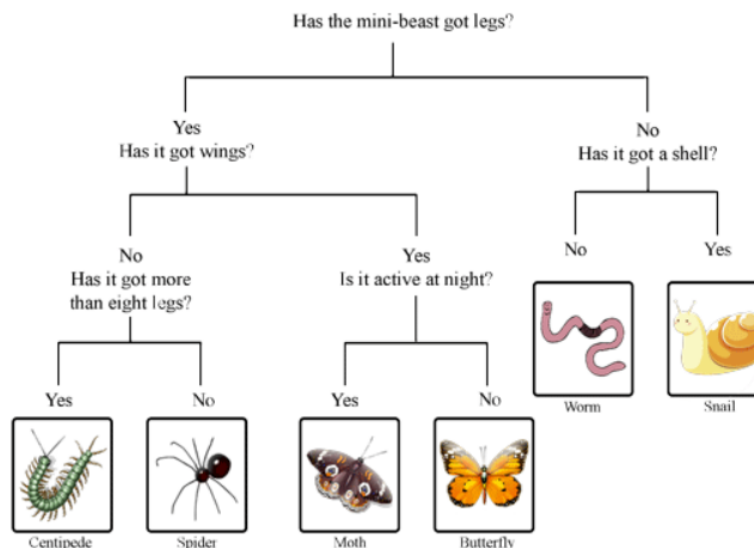### Classification Keys

A set of yes or no questions about the characteristics of living things.

They are used to group and sort animals and plants.