Classification Of Living Things - Worksheet

Part A: Preparation

Step 1. Think about observable features of living things and complete the memory organiser below.

The third column has the definitions of living things.

- Choose the correct answer to match the definition.
- Write your answers in the middle column.
- Write the first letter of each answer in the first column to create a memory organiser called a mnemonic.

Mnemonic The first letter of each answer	Answers	Definitions
		the organism can change its position.
		the organism releases energy from a 'food' source: this requires oxygen.
		the organism responds to things.
		the organism gets bigger.
		the organism can make copies of itself.
		the organism gets rid of waste materials.

ANSWERS: Reproduction; **R**espiration; **N**utrition; **G**rowth; **M**ovement; **S**ensitivity; **E**xcretion

Have you created the mnemonic **MRSGREN** to help you remember features of living things?

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Step 2. Look at the following images and classify them as living or nonliving. Write your answer next to each item and explain your reasoning:

Item	Living or non-living

Part B: Classification

Step 1. Think about people whose job or hobby depends on understanding differences and similarities in living things. For example: people working in a pet store; a vet; someone that cares for injured native wildlife; a gardener; a scientist studying Australian rainforest plants; a researcher looking for possible medicines contained in plants; fruit shop owners buying the best types of fruit; a beekeeper; a guide dog breeder; a doctor investigating diseases; or a kid choosing a pet.

Answer the question: Why do we classify living things?

Step 2. In an outdoor environment, identify and classify living things using the definitions from Part A to complete the observation tasks below.

When I lay on my stomach looking into grass, living things that **move** include:

When I look down the path living things that use oxygen during **respiration** are:

As I sit quietly, living things that can sense their **environment** are:

As I walk around living things I observe that can **grow** are:

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When I look around, living things I see that are able to **reproduce** include:
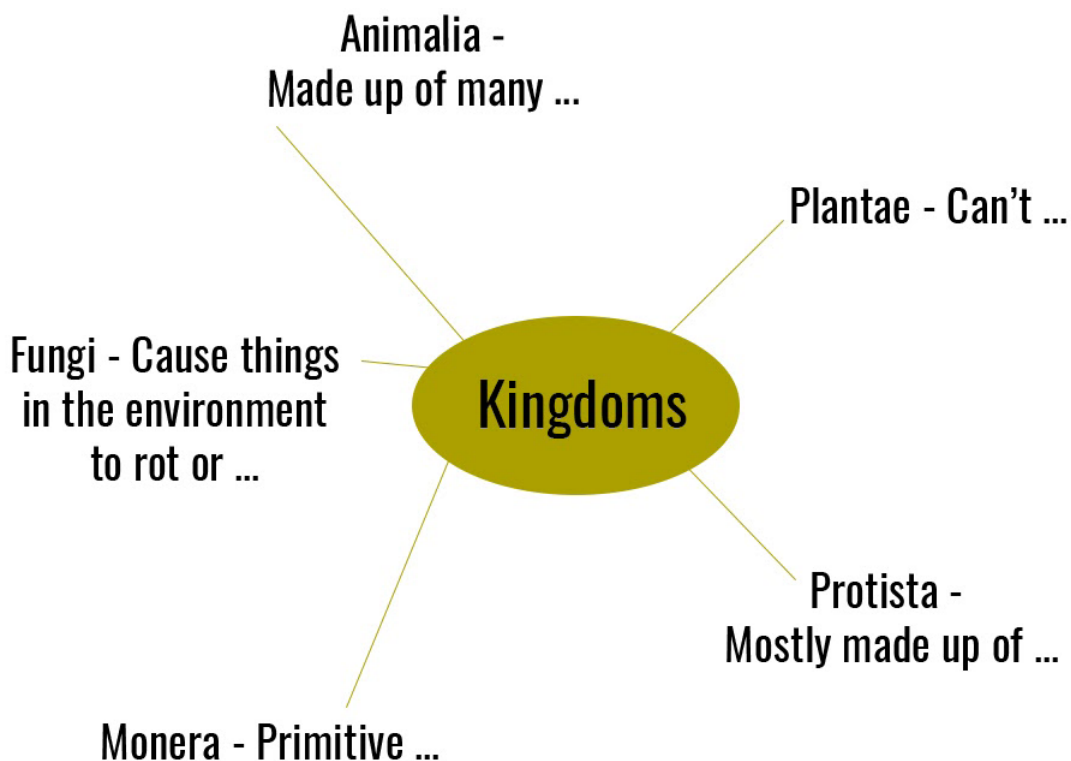
When I close my eyes and think about all of the living things I have seen outside that **excrete** waste products such as carbon dioxide, oxygen and water include:

Living things I can see that consume **nutrients** or food are:

Step 3. Prepare a mind map of the features of kingdoms.

Use the five kingdom photos sheets (see 'What you will need' under the Activity Introduction): Animalia, Fungi, Monera, Plantae, Protista and the Features of Kingdoms.

On the following page, create your own mind map (see sample below) that includes the defining features of each kingdom and add other important features.

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Species Profile

Classification of living things and identifying organisms so there is no confusion involves a common name and scientific name. Undertake research of an organism you are interested in to prepare a profile on a separate piece of paper or in your workbook. Your species profile should include structural features, adaptations, habitat description, scientific or binomial name. See the example below.

Scientific name: *Heliocidaris tuberculata*   **Common name:** *Red tipped urchin*

Description: A large sea urchin with red brown spines tinged about five to eight cm long.

Niche or job:

- Red tipped urchin lives permanently immersed in rockpools, crevices and beneath ledges of the low tide zone and deeper offshore locations.
- They actively graze on rock surfaces of algae or seagrasses.
- While afforded some protection from predators by their spines and tendency to locate in tight situations amongst rocks they remain susceptible to predation by large fish, eels, birds and humans.