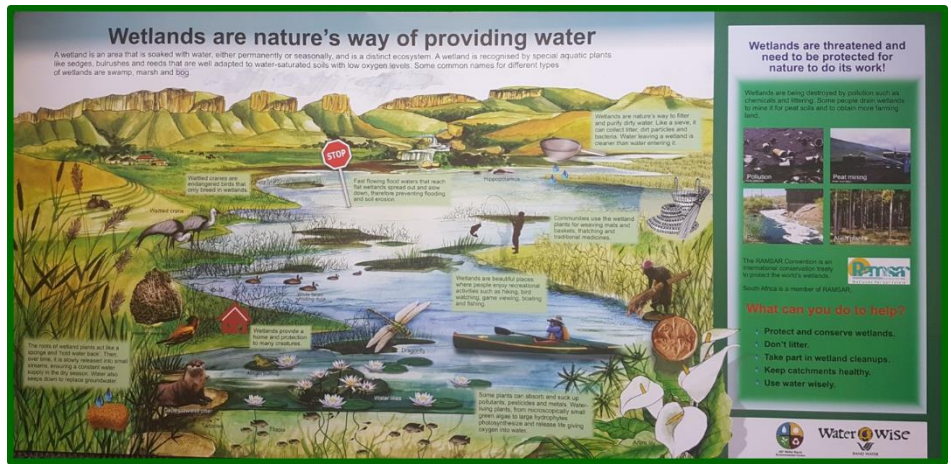


	WATER WISE EDUCATION TEAM ACTIVITY TEMPLATE	
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Grade	7
Term	1
Subject	Natural Science (Life & Living)
Name of Topic	Content: <ul style="list-style-type: none"> • Classification of living things • Diversity of animals and plants
Sustainable Development Goal/s (SDGs)	SDG: Quality Education SDG 15: Life on Land Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.
Name of Activity/ Programme	Biosphere, Biodiversity, Interactions and Interdependence. A Look into Biodiversity.
Outcomes/Purpose	At the end of this activity learners will be able to: <ul style="list-style-type: none"> ➤ To explain the concept of biodiversity. ➤ Understand how animals are differentiated from plants ➤ Explain the concept of classification and know the different characteristics of the following classes: Fish, Amphibians, Reptiles, Birds and Mammals. ➤ Make a connection between nature and humans. ➤ Know the value of different habitats and that they should be protected and promote biodiversity. (<i>The last two are based on Socio-emotional objectives of teaching SDG 15</i>)
Link to CAPS	CAPS Snr Phase Natural Science (Life and Living) page 17 This activity can be linked to NS (Life & Living and Mechanisms) Grade 5 Term 3 page 39. Learners learn about Energy flow and biodiversity of animals and plants. Basic labeling and looking and different life cycles using cards.
Materials needed for the Activity	Clip boards Pencils Worksheet "A look into biodiversity" Poster "Wetlands are nature's way of providing water".



(Version available as electronic resource).

**Activity Outline
(In detail)**

Step 1: Introduction

The facilitator will introduce basic concept of biodiversity.

"Biodiversity is the variety of life on Earth, the number of species of plants, animals, and microorganisms, the enormous diversity of genes in these species, the different ecosystems on the planet, such as deserts, rainforests and coral reefs are all part of a biologically diverse Earth".

Facilitator to include the concept of classification.

Step 2: Interaction with poster resource

The facilitator to hand out "Wetlands are nature's way of providing water" poster and "A look into Biodiversity" activity sheet.

Question 1:

Using the poster the learners will need to answer question 1 on the activity sheet.

Question 2:

There are five main groups (called Kingdoms) of living organisms and these include Bacteria, Protista, Fungi, Plants and Animals. How many kingdoms do you think are present in



WATER WISE EDUCATION TEAM ACTIVITY TEMPLATE



this poster and give examples?

How to discuss answer:

- Bacteria (Monera):
- Protista: (Algae but not on the poster) you can talk about it as the learners might ask.
- Fungi: (Mushrooms not on poster but open discussion).
- Plants: Water lilies, Arum lilies.
- Animals: Wattled crane, Hippopotamus, Otter, Birds, insects (dragon fly etc.), fish

Question 3:

A vertebrate is an animal with a backbone and an invertebrate is an animal without a back bone! Draw a table below and write the names of the animals under the vertebrates or invertebrates column.

How to discuss answer:

Vertebrates	Invertebrates
Birds (Wattled Crane etc.)	Insects (dragon fly, mayfly)
Fish (Tilapia etc.)	
Mammals (Otter etc.)	
Amphibians (e.g frogs)	
Reptiles (no reptiles on the poster but open discussion)	

Question 4:

Vertebrates are divided into five classes based on distinguishing characteristics. These five classes are: Fish, Amphibians, Reptiles, Birds and Mammals. Using the poster, see if you can find a vertebrate in each class. Are there any classes missing?

How to discuss answer:

- Birds: Wattled Crane, Masked weaver
- Fish: Tilapia
- Mammals: Otter, Hippopotamus
- Amphibians: African bullfrog



**WATER WISE EDUCATION
TEAM ACTIVITY
TEMPLATE**



	<p>➤ Reptiles (no reptiles on the poster)</p> <p>Question 5: Invertebrates are subdivided into Phyla Arthropods and Mollusca. Arthropods include insects (e.g. flies), arachnids (e.g. spiders) and crustaceans (e.g. crabs). Mollusca are soft bodied animals such as snails. Can you identify any invertebrates on the poster? Answer: ➤ Arthropods: Dragon flies</p> <p>Question 6: Plants are classified as plants with seeds (such as maize) or plants without seeds or spores (such as ferns). Plants with seeds are Angiosperms (flowering plants) and Gymnosperms (cone bearing plants such as the cycad). Can you identify any Angiosperms on the poster? Answer: ➤ Arum lilly, grass, water lilly</p> <p>Conclusion: Check that all the learners have answered correctly.</p>
<p>Key words for the Activity (Terminology)</p>	<p>Biodiversity Classification Kingdom - Bacteria, Protista, Fungi, Plants, Animals Vertebrates Invertebrates Classes - Birds, Fish, Mammals, Amphibians, Reptiles Phyla - Arthropods (Arachnids, Crustaceans), Mollusca Angiosperms Gymnosperms</p>
<p>Name of Worksheet/s (please attach)</p>	<p>"A look into Biodiversity"</p>

	WATER WISE EDUCATION TEAM ACTIVITY TEMPLATE	
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Notes for the Facilitators	Please make sure that you familiarise yourself with the concept of classification prior to doing this activity.
Any opportunity for using technology e.g. Computers; GPS; cel phones; etc.	Learners can use their cellphones to look for explanations of terminology as they do the activity as well as to look for examples of animals that they may not find on the poster.
References	Curriculum and Assessment Policy Statement Grade 7-9 Natural Sciences.
Assessment	This activity can be used for assessment.
Activity developed by	Nyree Steenekamp (2018)
Activity adapted by and date	Maria Pooe June 2020