

	WATER WISE EDUCATION TEAM ACTIVITY TEMPLATE	
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Grade	8
Term	1
Subject	Natural Sciences (Life & Living)
Name of Topic	Interactions and Interdependence within the Environment: Adaptations Content: <ul style="list-style-type: none"> • Different characteristics that animals have to survive in different habitats. • Biodiversity .
Sustainable Development Goal/s (SDGs)	SDG 4: 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	Survival of the Wisest
Outcomes/Purpose	At the end of this activity learners will be able to: <ul style="list-style-type: none"> ➤ Define the concept of adaptation ➤ Know different characteristics that animals have to survive ➤ Understand that the desert has its own climate with minimal rainfall ➤ Make a connection between nature and humans. ➤ Know the value of different habits 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 & Living) page 38 This activity can be linked to SS (Geo) Grade 5 Term 3 p 27. Weather, Climate and Vegetation. Links between climate and vegetation. In this case learners are looking at links between natural vegetation and climate (e.g. how plants are adapted to survive in a particular climate).



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Materials needed for the Activity	<ul style="list-style-type: none">• Worksheets• Clipboards• Pencils• Stakes with pictures
Activity Outline (In detail)	<p>Step 1: Introduction The facilitator will introduce basic concepts of adaptation.</p> <ul style="list-style-type: none">➤ Learners to describe how they are able to walk from one place to the other.➤ Why are we able to survive on land?➤ What makes animals that live in the ocean survive in the ocean without drowning. <p>Desert animals have evolved to handle the desert's heat and lack of water. They have adapted their bodies and behaviors to the desert climate. Animals often conserve water by slowing down their bodily processes, but may implement other methods of water conservation to help themselves and their offspring survive.</p> <p>Most can survive on small amounts of water and many get all of their water from their food. Some drink maybe once a week and travel considerable distances to find isolated waterholes and springs. Large animals seek shade during the hottest part of the day. Some animals dig a hollow depression into the ground and lie in the cooler soil while others are nocturnal. Many reptiles and other animals protect themselves from the extreme temperature by spending their time in burrows.</p> <p>Step 2: Activity The facilitator to place animal pictures on stakes in an area where the learners can look for them and match them to the descriptions on the activity sheets.</p>

Damara dik dik

I lose very little water in my urine. I do not need to drink water. I get all my water from the juicy shoots I eat. I feed early in the morning when there is some dew on the leaves.

Sandgrouse

I will fly 60 km to have a drink. I am a good father and will carry home life-giving water for my chicks to sip from my breast feathers that hold water like a sponge.

Bat-eared fox

I do not drink water often because I get moisture from the insects and animals that I eat.

Ostrich

I save water because my breath is cooled as it passes up my long neck and nasal passages. Cool air holds less water vapour than warm air.

Desert Chameleon

I have a scaly waterproof skin that can change colour. I am dark in the morning and pale in the heat of the day to reflect the sun and keep cool. I get water by eating juicy lizards and beetles.

Desert scorpions

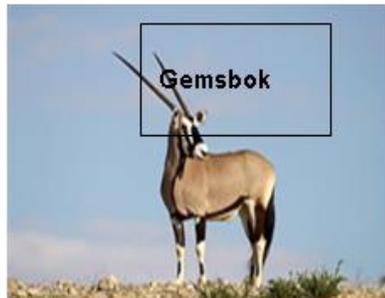
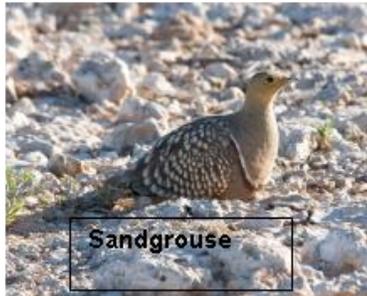
Have a thick waterproof skin. They lose so little water that they can survive for a year without food - their only source of water.

Gemsbok

On a very hot day I only keep my brain cool. Blood is cooled in my long nose and flows to my brain to keep it cool. I feed at night by digging up the juicy tubers of gemsbok cucumbers.

Toktokkie

On cold, foggy days I sit head down on the crest of the sand dunes. Fog condenses on my waxy back and the water trickles into my mouth.





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	<p>Step 3: Conclusion</p> <ul style="list-style-type: none"> ➤ Check the learner answers. ➤ Ask them if they have noticed that all these animals have a way for surviving in dry habitats such as a desert. ➤ Animals have become Water Wise in order to survive in harsh environments. ➤ Are human beings Water Wise? <p>What can we do to ensure that deserts and their vegetation, animals are protected?</p>
<p>Key words for the Activity (Terminology)</p>	<p>Adaptation Survival Biodiversity</p>
<p>Name of Worksheet/s (please attach)</p>	<p>Survival of the Wisest</p>
<p>Notes for the Facilitators</p>	<p>Note that the learners have already learnt about "adaptation" in Grade 5 but focusing on plants. You can also use plants that are adapted to harsh environments as an example to make it easier for the learners to follow.</p>
<p>Any opportunity for using technology e.g. Computers; GPS; cel phones; etc.</p>	<p>Learners can use the cellphone/internet to read more about the desert and where such habitats/biomes can be found.</p>
<p>References</p>	<ul style="list-style-type: none"> • Curriculum and Assessment Policy Statement Grade 7-9 Natural Sciences
<p>Assessment</p>	<p>This activity can be used as an assessment tool.</p>
<p>Activity developed</p>	<p>Valerie</p>
<p>Activity adapted by date</p>	<p>Maria Pooe May 2020</p>