



Maggie's Weekly Lesson Pack!

Name _____

Date _____

Food Webs: The Sahara Desert

The Sahara Desert

We think of very cold areas as harsh environments. But hot areas can be harsh environments, too. The Sahara Desert, in Africa, is one of the harshest **ecosystems** on earth.

The temperature in the Sahara can get as hot as 130° F degrees during the day. Winds blow sand across the desert.

There are huge dust storms.

But there are many plants and animals that live in this desert.

The sun and small amounts of water allow some plants to live here. Plants like the date palm

change sunlight and water into energy. This is called **photosynthesis**. The word photosynthesis means making



something using light. Plants are able to use the sun and water to grow stems, leaves, and fruits. Other animals eat these parts of plants. Because of this, they are called **producers**. They make the first level energy for other animals to eat.

The plants are then eaten by **herbivores**. Herbivores are animals that eat only plants. Herbivores in the Sahara Desert include animals like the small desert jerboa, the mounflon (a wild sheep), and the Dorcus gazelle. Another herbivore is the Arabian camel. It is used by people to carry things in the desert. Camels need very little water. This makes them good desert animals.

Some animals only eat meat. They are called **carnivores**. In the Sahara desert, there are many carnivores. The sand cat, striped hyena, and even the sidewinder snake are carnivores that live in the Sahara Desert. Some animals eat both plants and other animals. They are called **omnivores**.

When we think of a producer (plant) – an herbivore (plant eater) – and a carnivore (an animal or flesh eater) – we now have a chain. This chain passes energy from one level to another. This is a **food chain**. In one area there might be several food chains. Different animals eat different

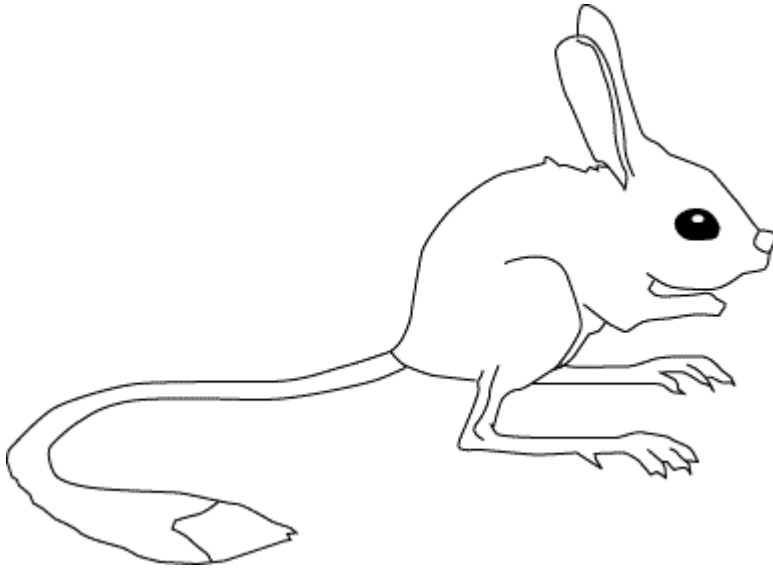
plants. The food chains are connected because one plant or animal in one food chain eats or is eaten by another from a different food chain. The relationship of several food chains is called a **food web**.

Food webs can have a lot of parts. They may have **scavengers** that feed on dead animals. They have **decomposers**. Decomposers break down dead plants and animals. They then recycle their nutrients back into the soil or water. The nutrients are used by plants (producers) again. A fungus growing on a dead tree is a decomposer. Insects and worms that chew up dead plants and animals in the forest are decomposers, too. Many decomposers are very small bacteria. Even the Sahara desert has decomposers like mushrooms.

A Day and Night in the Sahara

As the hot desert sun rises, the nighttime animals take cover. They may hide under rocks or in caves. They may dig into the sand. They may hide in the shade of the plants that grow in the desert. The sun's light energy fuels the photosynthesis of the green plants. One of these plants is the date palm. The palm grows. It produces a fruit. On this

day, the desert winds blow again. The date palm fruit falls to the ground. The palm is a **producer** of new energy.



Later that day, the sun begins to set. The temperature cools. As darkness falls on the desert, the small mouse-like desert jerboa comes out. It begins to look

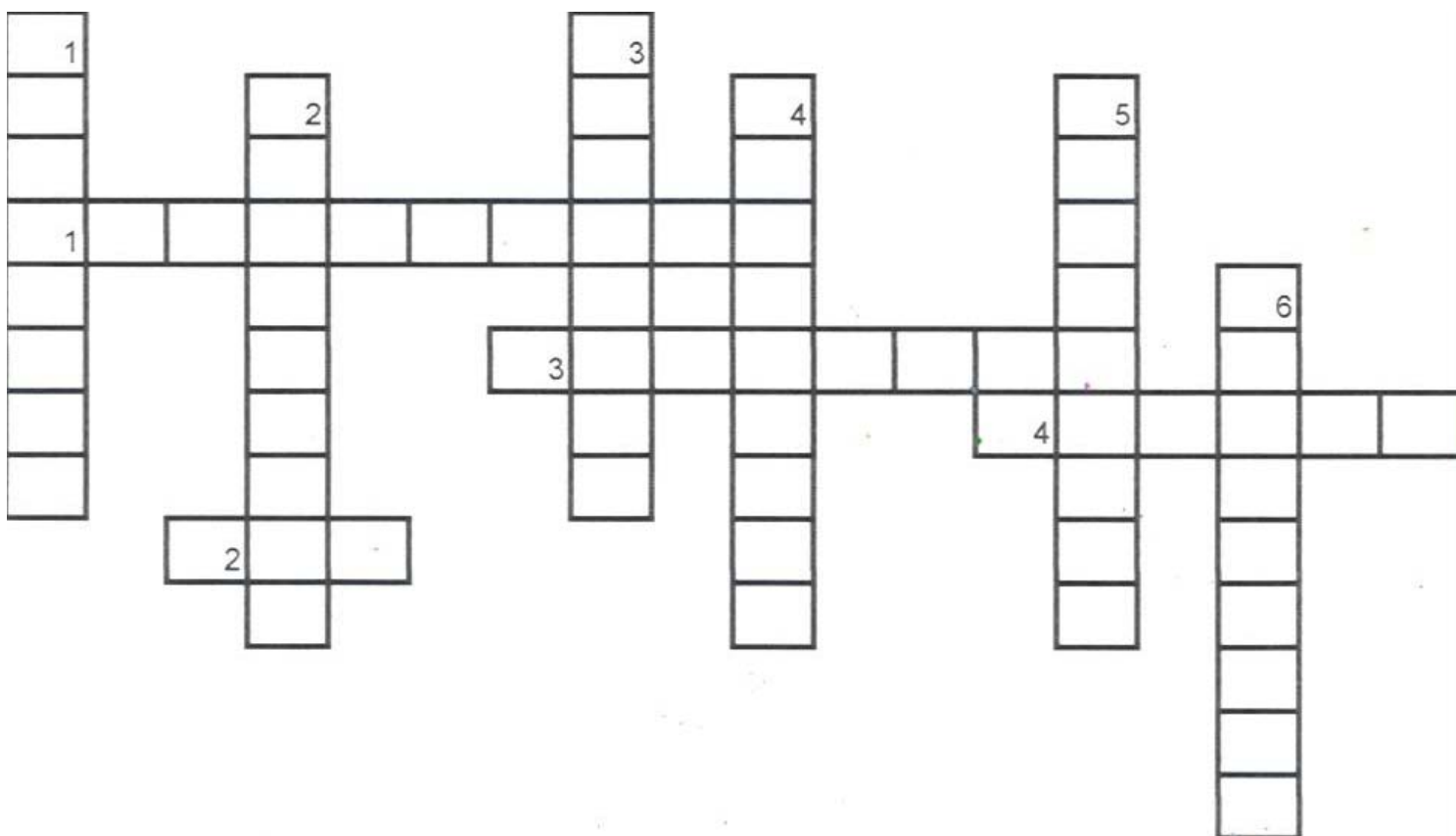
for food. Finally it finds the date from the palm tree and eats it. The **first-level consumer** and **herbivore**, the jerboa has now done its job.

Full of new energy, the jerboa runs about on the desert sands. But it meets a predator, the sand cat. The sand cat is fast. It captures and eats the jerboa. Now the **second-level consumer** and **carnivore**, the sand cat, continues the food chain. The energy is passed from the jerboa to the sand cat.

The sand cat digests the jerboa. It passes waste droppings back to the soil. Before the night is over, the desert insects and worms, the **decomposers**, find the sand cat droppings. They begin to break down the droppings.

These nutrients are then left in the soil for plants to use. The desert sun rises for another day. The desert food web continues.

Food Web Crossword



Across

- 1 – Breaks down dead plants and animals and recycles their nutrients back into the soil
- 2 – The relationship of several food chains
- 3 – Animals that eat both plants and animals
- 4 – Plants use this from the sun to produce food

Down

- 1 – Plants are called this because they make food for animals to eat
- 2 – How plants and animals react with their environment
- 3 – Animals that eat plants OR other animals
- 4 – Meat eater
- 5 – An animal that feeds on dead animals
- 6 – Plant eater

Sahara Desert Word Search Fun!

S A N D E H D J E R B O A D T Y O
A N X O F O O D C H A I N S O I L
H I S R H Y E N A W A T E R E A T
A M A C M F S P R O D U C E R Z D
R A N U U U I W P L A N T S M T E
A L D S S N D E S N A K E T I E C
D S C G H G E B R E C Y C L E P O
E E A A R U W I P R O D U C E R M
S A T Z O S I I N S E C T S X O P
E T I E O J N H E R B I V O R E O
R L I L M J D A T E P A L M O K S
T V S L S I E C A R N I V O R E E
P X I E I A R A B I A N C A M E L

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|----------------|-----------|------------|
| Date palm | hyena | water |
| Sidewinder | water | producer |
| Sahara Desert | jerboa | recycle |
| Arabian camel | sand | soil |
| Dorcus Gazelle | animals | insects |
| carnivore | herbivore | decompose |
| mushrooms | fungus | food chain |
| plants | eat | snake |

Dear Colleague,

This week we bring you information about food webs – specifically targeting the Sahara Desert. You may just want to turn off the lights, have your students close their eyes and read **A Day and Night in the Sahara**. I am particularly excited to bring you the Sahara Desert Word Search in this Activity Packet. I have recently been studying about the importance of developing sensory integration in elementary students. One of the ways we can do this is by providing activities such as mazes and word searches. Gosh – for years I thought word searchers were something we gave kids for fun! But, they do help develop sequencing skills and other needed sensory skills. So, your students will think you are a “fun” teacher, but you are helping develop, among other things, visual memory!

Enjoy!
Kathy