

TEACHING TIDBITS: SCIENCE CONNECTIONS

An ABC Escapade through Egypt

www.bernadettesimpson.com

Useful Sites for the Science Activities

Animal Diversity Web

<http://animaldiversity.ummz.umich.edu/site/index.html>

Egypt's Biodiversity – *info on habitat, wildlife, conservation, and more*

<http://www.biomapegypt.org/biodiversity/index.html>

Kidport Reference Library: The Animal Kingdom

<http://www.kidport.com/RefLIB/Science/Animals/Animals.htm>

Oceans for Youth Foundation – *info on "The Geology of the Sea" and continental drift*

<http://www.oceansforyouth.org/whats-that/ptr0801.html>

NASA: On the Move – Continental Drift and Plate Tectonics

<http://kids.mtpe.hq.nasa.gov/archive/pangaea/index.html>

Think Quest: Plate Tectonics

<http://library.thinkquest.org/17457/platetectonics/index.php>

Wikipedia's List of Birds in Egypt

http://en.wikipedia.org/wiki/List_of_birds_of_Egypt

Your Sky – *produce sky maps for specific dates and locations*

<http://www.fourmilab.ch/yoursky/>

Possible Science Connections

These learning extensions are geared toward students in the upper elementary and middle school grades. Modify or expand, and prepare the activities to suit the needs, abilities, and interests of your learners. Be sure to check the resources in [Explore Egypt](#).

Browse activities [by topic](#) or [by letter](#).

by Topic

[Plants and Animals: Characteristics and Adaptations](#)

[Plants and Animals: Changes in Cycles](#)

[Plants and Animals: Living Systems](#)

[Plants and Animals: Species and Classification](#)

[The Solar System](#)

[Earth Science: Continental Drift](#)

[Matter: Chemical Changes](#)

Plants and Animals: Characteristics and Adaptations

Camels

Learners can research the digestive systems of cows and camels. Compare and contrast the parts and functions to the human digestive system and discover why humans don't have to chew cud.

Learners can research and compare Dromedary camels to Bactrian camels – their bodies, adaptations, uses, and habitats, for example. Learn about *Tulus* and *Bukhts*. (crossbreeds or hybrids)

Camels, Jerboas, Foxes

Learners can research the adaptations of camels/jerboas/foxes. Identify the characteristics that allow them to survive in the desert. Compare to humans and other animals.

Dates and Prickly Pear

Learners can research the adaptations of these and other desert plants that allow them to survive and flourish in the desert. Compare to other plants and habitats. What would plants need to survive under the canopy of a rain forest or in a cold, snowy climate?

Learners can identify and research other edible desert plants. Which plants are the most nutritious? Which parts of the plant are eaten or utilized in some way?

Plants and Animals: Changes in Cycles

Dates, Olives, Prickly Pear, Mangoes, Watermelons

Learners can research the life cycle of the plants. What do the plants need to survive? How is cultivation of these plants affected by their life cycle or seasonal changes? What would happen to these plants if their life cycle was interrupted?

Camels, Egrets, Jerboas, Foxes, and Urchins

Learners can describe and compare the life cycle of these animals. How do they differ from other species? From plants?

Plants and Animals: Living Systems

Camels, Egrets, Jerboas, Foxes, and Urchins

Learners can research the habitat and ecosystems where these and other animals are found – in Egypt and around the world. What role do these animals play in their ecosystems? What would happen to the ecosystem if

[Back to Topic Index](#)

the animal were removed (became extinct)? What would happen to the animal if something in the ecosystem were changed (access to fresh water, removal of predator, etc.)? What role do humans play in these ecosystems?

Plants and Animals: Species and Classification

Egrets

Learners can explore the most current animal classification and taxonomy. What are the scientific names for herons and egrets? How do popular or common names for animals differ from the biological or scientific names? Why? Do all scientists agree on how animals are classified? What are the major differences between the different groups of the animal kingdom?

Learners can research other species of birds found in Egypt. How many different types of birds are there? Where are they located? How do their habitats differ? Go bird watching! Visit a popular birding site and see what birds you can find. Learners can also research migration and the various species of bird that migrate through Egypt (an important stopover on many birds' migration routes).

Solar System

Nile

Learners can research the use of constellations and other objects in our solar system in navigation (celestial navigation). Learn specific constellations – their names, shapes, and locations in the current night sky. (See link above to create a sky map specific to your location.) How and why do the location and position in the sky change? Compare celestial navigation to other ancient and modern navigation tools.

Earth Science: Continental Drift

Red Sea

Discover why Egypt lays on two separate continents! Learners can research continental drift, sea floor spreading, and their role in the formation of the Red Sea and the Great Rift Valley. Discuss the evidence that scientists use to support the continental drift theory. Learners can investigate other land formations and processes and even create a model of the different forms used plasticine or clay.

Matter: Chemical Changes

Yogurt

Learners can research the process of fermentation (a chemical change) and its role in the making of yogurt. Compare and contrast to other physical and chemical changes. Learn about other positive and negative effects of microorganisms. Locate recipes for homemade yogurt and give them a try!

by Letter

[C](#) [D](#) [E](#) [J](#) [M](#) [N](#) [O](#) [P](#) [R](#) [U](#) [W](#) [X](#) [Y](#)

- C:** Learners can research the digestive systems of cows and camels. Compare and contrast the parts and functions to the human digestive system and discover why humans don't have to chew cud.

Learners can research and compare Dromedary camels to Bactrian camels – their bodies, adaptations, uses, and habitats, for example. Learn about *Tulus* and *Bukhts*. (crossbreeds or hybrids)

Learners can research the adaptations of camels. Identify the characteristics that allow them to survive in the desert. Compare to humans and other animals.

Learners can describe and compare the life cycle of these animals. How do they differ from other species? From plants?

Learners can research the habitat and ecosystems where these and other animals are found – in Egypt and around the world. What role do these animals play in their ecosystems? What would happen to the ecosystem if the animal were removed (became extinct)? What would happen to the animal if something in the ecosystem were changed (access to fresh water, removal of predator, etc.)? What role do humans play in these ecosystems?

- D:** Learners can research the adaptations of these and other desert plants that allow them to survive and flourish in the desert. Compare to other plants and habitats. What would plants need to survive under the canopy of a rain forest or in a cold, snowy climate?

Learners can identify and research other edible desert plants. Which plants are the most nutritious? Which parts of the plant are eaten or utilized in some way?

Learners can research the life cycle of the plants. What do the plants need to survive? How is cultivation of these plants affected by their life cycle or seasonal changes? What would happen to these plants if their life cycle was interrupted?

[Back to Letter Index](#)

- E:** Learners can describe and compare the life cycle of these animals. How do they differ from other species? From plants?

Learners can research the habitat and ecosystems where these and other animals are found – in Egypt and around the world. What role do these

animals play in their ecosystems? What would happen to the ecosystem if the animal were removed (became extinct)? What would happen to the animal if something in the ecosystem were changed (access to fresh water, removal of predator, etc.)? What role do humans play in these ecosystems?

Learners can explore the most current animal classification and taxonomy. What are the scientific names for herons and egrets? How do popular or common names for animals differ from the biological or scientific names? Why? Do all scientists agree on how animals are classified? What are the major differences between the different groups of the animal kingdom?

Learners can research other species of birds found in Egypt. How many different types of birds are there? Where are they located? How do their habitats differ? Go bird watching! Visit a popular birding site and see what birds you can find. Learners can also research migration and the various species of bird that migrate through Egypt (an important stopover on many birds' migration routes).

J: Learners can describe and compare the life cycle of these animals. How do they differ from other species? From plants?

Learners can research the adaptations of jerboas. Identify the characteristics that allow them to survive in the desert. Compare to humans and other animals.

Learners can research the habitat and ecosystems where these and other animals are found – in Egypt and around the world. What role do these animals play in their ecosystems? What would happen to the ecosystem if the animal were removed (became extinct)? What would happen to the animal if something in the ecosystem were changed (access to fresh water, removal of predator, etc.)? What role do humans play in these ecosystems?

M: Learners can research the life cycle of the plants. What do the plants need to survive? How is cultivation of these plants affected by their life cycle or seasonal changes? What would happen to these plants if their life cycle was interrupted?

[Back to Letter Index](#)

N: Learners can research the use of constellations and other objects in our solar system in navigation (celestial navigation). Learn specific constellations – their names, shapes, and locations in the current night sky. (See link above to create a sky map specific to your location.) How and why do the location and position in the sky change? Compare celestial navigation to other ancient and modern navigation tools.

O: Learners can research the life cycle of the plants. What do the plants need

to survive? How is cultivation of these plants affected by their life cycle or seasonal changes? What would happen to these plants if their life cycle was interrupted?

- P:** Learners can research the adaptations of these and other desert plants that allow them to survive and flourish in the desert. Compare to other plants and habitats. What would plants need to survive under the canopy of a rain forest or in a cold, snowy climate?

Learners can identify and research other edible desert plants. Which plants are the most nutritious? Which parts of the plant are eaten or utilized in some way?

Learners can research the life cycle of the plants. What do the plants need to survive? How is cultivation of these plants affected by their life cycle or seasonal changes? What would happen to these plants if their life cycle was interrupted?

- R:** Discover why Egypt lays on two separate continents! Learners can research continental drift, sea floor spreading, and their role in the formation of the Red Sea and the Great Rift Valley. Discuss the evidence that scientists use to support the continental drift theory. Learners can investigate other land formations and processes and even create a model of the different forms used plasticine or clay.

- U:** Learners can describe and compare the life cycle of these animals. How do they differ from other animals and plants?

- W:** Learners can research the life cycle of the plants. What do the plants need to survive? How is cultivation of these plants affected by their life cycle or seasonal changes? What would happen to these plants if their life cycle was interrupted?

- X:** Learners can research the adaptations of foxes. Identify the characteristics that allow them to survive in the desert. Compare to humans and other animals.

Learners can describe and compare the life cycle of these animals. How do they differ from other species? From plants?

[Back to Letter Index](#)

Learners can research the habitat and ecosystems where these and other animals are found – in Egypt and around the world. What role do these animals play in their ecosystems? What would happen to the ecosystem if

the animal were removed (became extinct)? What would happen to the animal if something in the ecosystem were changed (access to fresh water, removal of predator, etc.)? What role do humans play in these ecosystems?

Y: Learners can research the process of fermentation (a chemical change) and its role in the making of yogurt. Compare and contrast to other physical and chemical changes. Learn about other positive and negative effects of microorganisms. Locate recipes for homemade yogurt and give them a try!

[Back to Letter Index](#)

Want to share your teaching ideas with other readers? Submit them to me at bernadette@bernadettesimpson.com and I'll add them to the collection.

[Back to Top](#)

Last updated: January 27, 2009