ADAPTATION AND SURVIVAL

Science Anchors

Science anchors are ongoing engaging tasks that students can work on independently. They are curriculum based, clearly defined and differentiated for students. Students can work on science anchors as they complete work at varying rates, when the teacher is working with a small groups of students, at the beginning or end of a class period, or when they are waiting for teacher assistance. Sample science anchor tasks include: reading and responding to text, journaling, learning or interest centers, listening or viewing centers, independent research or projects and hands-on minds-on science kit tasks. Provide a variety of anchor tasks at your anchor station to address the diverse learning styles, interests, and readiness levels of your students.

Purpose

Students select and complete an anchor task to deepen their understanding of adaptation and survival.

Task 1	Task 2	Task 3
Design an animal that is best suited to its environment. Access to Best Suited Animal task at link below: http://coolschool.ca/TC2/TC2_projects/projects/TC2_09.htm	Develop a timeline that reflects the lifespan of an extinct native species.	Explain how a native species survives throughout the year.

Best Suited Animal

Anchor Task 1

Overview

This anchor task is to be used by students as they are learning about adaptation and survival.

Goals

Students should know

some organisms have a better chance of surviving than others.

Students should understand

best-suited organisms and groups of organisms survive.

some organisms survive and reproduce and others die or migrate to other locations when the environment changes.

Students should be able to

design the best suited animal for an environment.

Required Resources

- Access to Best Suited Animal task at link below:

http://coolschool.ca/TC2/TC2_projects/projects/TC2_09.htm

Extinct Native Species Timeline

Anchor Task 2

Overview

This anchor task is to be used by students as they are learning about populations, adaptation and survival.

Goals

Students should know

changes in the environment can be harmful or helpful.

some organisms have a better chance of surviving than others.

Students should understand

some organisms survive and reproduce and others die or migrate to other locations when the environment changes.

extinction occurs when adaptive traits of a population do not support its survival.

Students should be able to

develop a timeline that reflects the life span of an extinct native species.

Required Resources

- One Extinct Species Timeline resource per student
- Colored pencils or markers
- Blank paper
- Lined paper
- Optional– Computers for students to develop electronic timelines

Extinct Naïve Species Timeline

Anchor Task 2

Directions

Select an extinct native species to research. _____

Get teacher approval.

Teacher Signature:_____

Document the entire life span of the native species on the next page.

Use poster paper or software to create a timeline that reflects the life span of the native species you researched. Be sure to include descriptions of the major influences that impacted the stability of the species.

The Carolina parakeet native to Maryland became extinct in the 1920's.

Image source http://www.lib.fit.edu/pubs/librarydisplays/Carolina_parakeet.jpg

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The Life of _____ From Beginning to End

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Maryland Native Species Research

Anchor Task 3

Overview

This anchor task is to be used by students as they are learning about survival.

Goals

Students should know

some organisms have a better chance of surviving than others.

Students should understand

best-suited organisms and groups of organisms survive.

some organisms survive and reproduce and others die or migrate to other locations when the environment changes.

Students should be able to

explain how a native Maryland species survives throughout the year.

Resources:

- One Maryland Native Species resource per student
- Various print and electronic resources
- Access to The Maryland Department of Natural Resources website at the link below:

http://www.dnr.state.md.us/wildlife/wildacres.asp

Maryland Native Species Research

Anchor Task 3

Directions

Select a Maryland native species to research. You can use the Maryland Department of Natural Resources website at the link below to help you.

http://www.dnr.state.md.us/wildlife/wildacres.asp

Eastern Screeh Owl

Photo by Tom Darden

http://www.dnr.state.md.us/wildlife/waowls.asp

Species:_____

Research the species that you selected. Write a paragraph to explain how your species survives throughout the year.