

Animal Classification Webquest

A learning adventure into classification

Karrie Y. Cox
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Introduction

Mammals, birds, fish, amphibians, reptiles, and insects. Simple explanations and colorful information provide an excellent lesson in classifying animals. Discover that animals can be classified into groups by characteristics they have in common. Learn about the traits that help distinguish each group of animals, and see how these traits help them survive

Animal Classification Webquest is an adventure themed classification WebQuest in which learners are able to explore animal classes. The learner can choose what order they want to investigate the animal classes. When they have viewed all the information available there is an interactive quiz to assess their knowledge. There is a combination of drag and drop animals to their class, filling in the blank, hot link multiple choice, and true or false questions. Students will have to click and drag, type in answers, click on buttons, and click on appropriate answers of T or F. After providing the answer, the student will need to click on check answer. If the answer is wrong, then players have one more chance before going to the next question. At the end of the quiz assessment, students will receive their final score.

Correct recognition depends on your understanding of how animals are classified according to certain physical characteristics and behaviors. For example, even though a butterfly and a hummingbird both fly, their respective body plans and other inherited traits mean that one is classified as an insect and the other as a bird. Similarities and differences among living things are the result of evolution.

Background:

Amidst all the marvelous diversity of life on Earth—between 10 and 30 million distinct species are thought to populate the planet—it's not surprising that some living things have similar body parts and structures, while others have nothing in common. To help us better understand the natural relationships that exist between species, scientists called taxonomists attempt to place organisms in distinct groups through careful examination of their characteristics.

For hundreds of years, philosophers and naturalists sought ways to classify the various living things that populate the planet. Until recently, they focused solely on physical characteristics, such as body part size and bone structure. Charles Darwin determined that the closest species are not necessarily those that look the most alike—the guiding principle for Carl Linnaeus's traditional classification scheme—but rather those that share the most recent common ancestry. In the course of evolution, Darwin reasoned, a new trait will emerge in an individual organism that will be passed on to its descendants. Therefore, two organisms that share this trait are more closely related than two organisms that lack this trait.

Today, taxonomists use genetics to further assist them in classifying organisms. They compare DNA sequences to determine evolutionary relationships between specimens they study. The millions of chemical letters of DNA code stored in the cells of all living things provide a distinctive genetic profile of a species. The more similar sequences there are between species, the closer their evolutionary relationship.

Understanding the evolutionary relationships between organisms helps us understand how the diversity of life on Earth came to be. By combining information from DNA analysis of fossils, researchers can draw evolutionary trees that depict where and approximately when different species branched off from common ancestors. These diagrams are hypotheses, and, as such, represent our best understanding of the true evolutionary relationships based on existing evidence.

Continued advances in taxonomic research benefits both scientists and the organisms they study. The ability to place plants or animals in groups allows scientists to apply new information about one living thing to other, related ones. Furthermore, we can use existing information about a plant or animal to improve its care, monitor its health, and, in the case of threatened or endangered species, help in establishing recovery programs.

Learner Characteristics

The target learner's for this project are 7-10 year olds who are developing their addition skills. Learners should have navigational skills for using the website. The learners could have previous instruction prior to being introduced to the WebQuest.

Purpose

The purpose of this game is to learn about animal classes.

Instructional Objectives:

1. Understand that organisms, like animals, are grouped together by the ways in which they are alike and different; this is called classifying.
2. Know the six different classifications of animals and describe the characteristics of each.
3. All living things reproduce, meaning, and they have offspring. Plants reproduce by making seeds from which new plants can grow. Animals produce baby animals.
4. Be able to use sorting techniques to identify living things in their classes.

Equipment

1. WindowXP or later operating system, 512M RAM or higher
2. [Adobe Flash Player 7.0](#)
3. Monitor, mouse, keyboard
4. Speakers (optional)
5. Internet Connection

Getting Started

Network Access

Click or copy and paste the following link into your browser to access the WebQuest instantly:

http://edtech2.boisestate.edu/karriecox/511/final/kcox_finalproject_edtech511.swf

Download Access

Download the game to a removable drive or save to a CD by clicking on the following link:
http://edtech2.boisestate.edu/karriecox/511/final/kcox_finalproject_edtech511.swf

Copy the game from the drive or CD to your desktop or play the game from the drive/CD.

Program Start Up

The program is divided into a Home Menu, Tutorial Menu, About Page, and a 3 level game. Clicking on How To Play will take the player to a menu where they can click to view the tutorial sections or click a button to initiate the entire tutorial sequence. The About Page provides basic information about the game and contact information for bugs and glitches. Clicking the Play button begins the addition game. The player can click the Home button at any time to return to the main menu.

Normal Running of Courseware

Time to complete the courseware

The amount of time needed to complete the tutorial and game will depend on the prior knowledge and reading level of the user. Adults testing the program can likely expect to complete the tutorial and game in 40 minutes.

User Interface Components

Home screen: Clicking Home keeps the user on this screen.

Start: Clicking start play takes the user to the WebQuest.



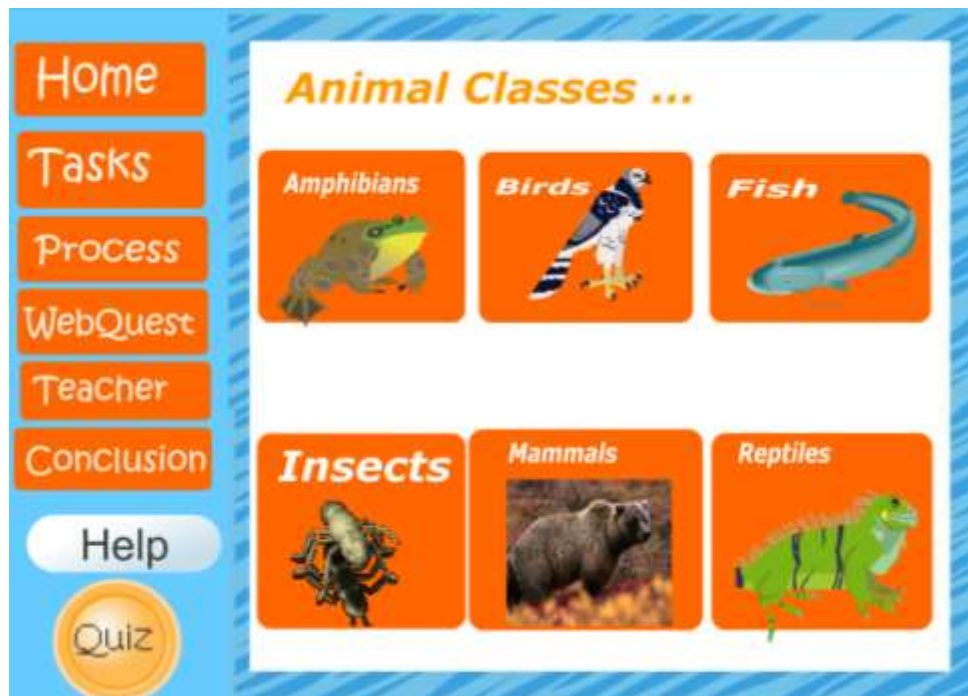
Navigation buttons are on the left:

Home: takes you to the introduction page.

Task: provides the user information the initial questions for the initial science inquiry.

Process: This screen describes the process for the WebQuest.

WebQuest: This page provides the animal classes. Click on each class to learn about what kind of animals are included and their traits. Each of the areas listed above contain buttons which the user can click to access the other three areas.



Teacher: Provides California State Standards for Life Science.

Conclusion: Provides rationale for completing the Animal Classification WebQuest and what students have learned.

Help: The help page provides information on how the Animal Classification WebQuest works and basic information for button navigation.

Quiz: Provides the assessment part of the WebQuest to test student's knowledge.



General Operations:

In addition to the User Interface Components discussed above, the quiz assessment component provides a navigational arrow to take the user to the next page.

There are four type of assessment interactive pages:

1. *Drag and Drop*: The drag and drop interaction will assess what students know about animals and the animal group in which they belong. Drag and Drop interaction with immediate feedback:



When the user has finished dragging the animals into their classes, they need to click the check answer button. When the button is clicked, the user is given immediate feedback. There is an option to reset this screen to try it again. To continue the user will need to click the next arrow button on the lower left.

2. Fill in the blank(s):



User will need to input the answer in the box, then click on check answer. After feedback is given, the user may continue.

3. Multiple 'hot object' interaction choices. After selecting choice(s) the user will then need to check answer which provides immediate feedback. Then they can continue to the next question.



- Radio buttons. After selecting choice(s) the user will then need to check answer which provides immediate feedback. Then they can continue to the next question.



Results of assessment

All questions are worth 20 points

