# TRB 4:5 - Investigation 11 - Utah Fish

## Summary

Students will learn about a particular Utah fish and then create a poster that shares what they learned.

## Group Size

**Small Groups** 

## Materials

Jar

- Names of fish on small pieces of paper
- Product guide

Art paper and crayons

Posterboard or bulletin board paper

- Rubric for poster

Additional Resources

### Agencies:

Ann Evans, Aquatic Resources Specialist at Division of Wildlife Resources is creating a resource trunk for checkout.

## **Background for Teachers**

Fish are an interesting animal that are fun to observe. They breathe by gulping water through their mouth and pumping it over their gills. The gills take in oxygen from the water and replace the oxygen with carbon dioxide. Fish also have moveable fins on the top, underside and tail to keep itself upright. The tail fin also helps the fish swim. The fins located just behind the gills help the fish turn and stop. Fish have no external ears. Sound is carried to their inner ears by delicate nerve endings along their backs that sense vibrations and movement in the water.

The history of fish populations in Utah has changed over time. Today popular kinds of fish are trout, carp and catfish. Back when the Indians and pioneers were hunting, farming and living in the Great Basin, the fish species were very different. Native fish back then were squawfish, chub, whitefish, sucker and cisco. Many fish that are popular today were brought from other places. The native fish are sometimes considered "trash fish."

Today in Utah, many of the native fish are disappearing. Because of disease, changing in habitat, and competition from the introduced fish, many of the native species are endangered. To preserve the biodiversity of Utah's fish populations, biologists are working hard to protect these endangered fish. Luckily, some of the fish species are doing quite well. One of them, the Bonneville cutthroat trout, recently become Utah's state fish.

# **Intended Learning Outcomes**

- 1. Use science process and thinking skills
- 4. Communicate effectively using science language and reasoning

## Instructional Procedures

Pre-Assessment/Invitation to Learn

Play Hangman with students to spell the name of the Bonneville Cutthroat Trout.

\_\_\_\_ \_\_\_ \_\_\_

Tell them it is the name of an animal that belongs to the group they will be studying. A clue might be that it is a vertebrate. Another would be that it was endangered. After students have solved the puzzle, discuss its claim to fame as Utah's state fish.

#### Instructional Procedure

Divide students into five or six cooperative learning groups. Be sure that groups will work together effectively to research information on Utah fish.

Have students draw the name of a fish from a jar. Include only those you will have information on. There is a list of fish on the Utah Division of Wildlife Resources web site.

Give each group the <u>product guide</u>, the <u>fish rubric</u> and a large-sized paper that will be used to create a poster or large graphic about their fish (See attached information).

Allow groups time to read, organize and plan a creative and informative product they can share with the class. They should design a rough draft of their plan on a sheet of paper.

Have each group share their information, with each student participating to explain his/her portion of the poster.

Place the posters in the library or classroom.

## Extensions

## Language Arts-

In the Project WILD publication, there is some excellent information about the use of native fish by Indians and pioneers in early Utah. (Integrate this information into social studies content core and discuss "native/trash fish" and our perception of these today.) (Standard VII, Objective 3)

#### Science-

Schedule an activity with the Division of Wildlife Resources Aquatic Resource Specialist to take the students fishing. Volunteers will meet classes at a fishing location and provide all equipment for a great outing. (ILO 2)

#### Math-

Chart the location of fish by different environments. (Standard V, Objective 1) Home and Family Connections

Visit a local pet store and observe a variety of fish. Do any of them have ties to Utah? Buy a goldfish and observe fish behavior.

Encourage families to try fishing

Visit a nearby fish hatchery.

#### Assessment Plan

There is a rubric attached for the group project. Each box represents group members and grades their portion.

### **Rubrics**

Utah Fish Cooperative Learning Poster Rubric

#### **Authors**

**Utah LessonPlans**