

Grade 4	Lesson: 1-14 Utah Fish	Reference to English
Standard(s): 1.OA.1		Domain:
Content Objective(s):		Language Objective(s):
Research and report on the behavior of a species of Utah fish.		
Essential Understanding:		Academic Vocabulary for Word Wall: Listen: 特征, 鳃, 鳍, 常见, 普遍, 濒危, 生态, 多元化 Read: Write: Speak: 特征, 鳃, 鳍, 常见, 普遍, 濒危, 生态, 多元化
Materials: <input type="checkbox"/> "My Environments Book" <input type="checkbox"/> Reference Materials <input type="checkbox"/> Poster board <input type="checkbox"/> Various Art Supplies		Additional Lesson Vocabulary: 鱼, 哺乳动物 Sentence Frames:
Lesson: Utah Fish		Instructional Time:

Opening: (10 minutes)

T: What is a fish? What characteristics does it have? What makes it different from a bird or mammal? 鱼是什么? 它有什么特征? 鱼跟哺乳动物有什么不一样?

- ☐ Use the information students already know as well as the following paragraph to teach students about fish. Have them record a few facts in their “My Environments Book.”

Introduction to New Material (Direct Instruction): (7 minutes)

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. 观察鱼是很有趣地。它们用鳃呼吸。鳃吸入水的氧气,呼出二氧化碳。它们的背鳍可以动,腹鳍和尾巴让它竖直。尾巴也可以帮助鱼游泳。鳃两旁的鳍帮助鱼转方向和停。鱼没有外面的耳朵。它们里面的耳朵可以透过背部的神经线感受水动的声音。

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.” 现在犹他州鱼的数量和种类跟以前的不一样。现在普遍的鱼有鳟鱼,鲤鱼和鲶鱼。以前,住在 Great Basin 的印地安人和先驱者打猎,耕作时,有不同的常见鱼类。有斯阔鱼,白鲑鱼,白鱼,胭脂鱼和思科鱼。大部分现在常见的鱼都是从其他地方来的。本土的鱼有时候被称为杂鱼。

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 became Utah’s state fish. 现今,很多杂鱼在消失。有部分的杂鱼是濒危的,因为疾病,生态的改变和其他鱼的竞争。为了保持生态多元化,生物家正努力保护濒危的鱼。幸好,有些鱼被保存下来。其中,割喉鳟鱼成为犹他州州鱼。

Guided Practice: (10 minutes)

- ☐ Divide students into 3 groups and assign them a common Utah Fish to research: trout, catfish, or carp.
- ☐ (Note: Obviously there are more than three types of fish in Utah. These are the three fish listed in the core. Include other species if desired.)
- ☐ Students will be researching information about the fish including:
 - Habitat (where they live)
 - Physical Description (color, size, shape, number of fins, etc.)
 - What and How they Eat
 - How they Reproduce (time of year and movement to spawn)
 - Predators
 - Interesting or Unusual Facts
- ☐ Show the students the reference materials available for them to use (computer, encyclopedia, fish books, etc.)
- ☐ Give the students time to complete their research and record the information in their “My Environments Book.”

Independent Practice: (6 minutes)

- ☐ Have each group create a poster to present the fish they studied.
- ☐ Divide a poster board in four sections:
 1. What and How they Eat
 2. How they Reproduce (time of year and movement to spawn)
 3. Predators
 4. Interesting or Unusual Facts
- ☐ Draw a large oval in the center of the poster. Inside the oval draw a picture of the fish and color the background to represent the habitat.
- ☐ Have the students record the facts they learned about their fish in each of the four sections through words and pictures.
- ☐ Have them report the Interesting or Unusual Facts section as an acrostic poem featuring the name of their fish.

Closing: (4 minutes)

Assessment:

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