

Intended for Grades: 4-8

Estimated Time: 45-60 min.

Draft July, 2013

Lesson Title: LAU + LAU

Lesson Purpose:

Students will participate in a math activity coming from a Hawaiian cultural practice and compare what they learn to the math they practice today. The activity outcome will include creation of a Hawaiian math guide.

Materials & Preparation:

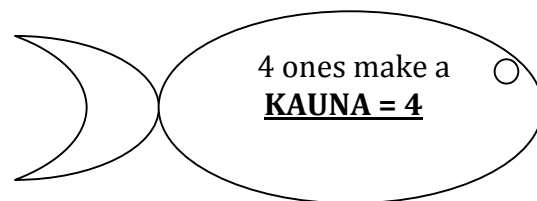
- * Hawaiian Counting Guide (see below)
- * Color markers and scissors (enough for students to share)
- * White Card stock for copies of Hawaiian Counting Guide
- * Pencils & folder paper for each student
- * Yarn or string; about 1 foot per student
- * *Teacher Prep:* Run off Counting Guide with fish cut-outs - one per student

Background Information: See Hawaiian Counting Guide

Steps:

1. Distribute a Hawaiian Counting Guide to each student (See below). Read background information together. (1-2 minutes)
2. Using pencils, have students write one description below on each fish. (5-10 minutes)

- Fish 1. 4 Ones make a Kauna = 4
- Fish 2. 10 Kauna make a Ka'au = 40
- Fish 3. 10 Ka'au make a Lau = 400
- Fish 4. 10 Lau make a Mano = 4,000



3. Ask students to cut out and color their four fishes in any way desired. They need to punch a hole in the eye of each fish. Students can then use yarn to tie the fishes loosely together through the holes in their eyes. (15-20 minutes)

4. Have students solve the following math problem (see below) using their fishes and scratch paper. Have students find the total number and also write the mathematical equation. (3-5 minutes). Discuss the answer.

5. Pair up students and instruct them to write a short Hawaiian equation story. Have them share these brief stories with classmates to answer. (5-10 minutes)

Reflection Questions:

*How might learning math in a Hawaiian way be different than learning math today?
How might it be similar?*

Resources:

*Hawaiian Studies curriculum Guide Grade 4, appendix unit Vc-E, pgs 180, 181.
Ke Au `Oko`a, Hawaiian Newspaper, Jan 21, 1867*

MATH PROBLEM: How Many????

In 1866, Chief Makua was discussing land with Mr. Kane when a farmer came. Chief Makua asked the farmer, “What do you have?”

The farmer answered, “I came to report how many taro stalks you have.”

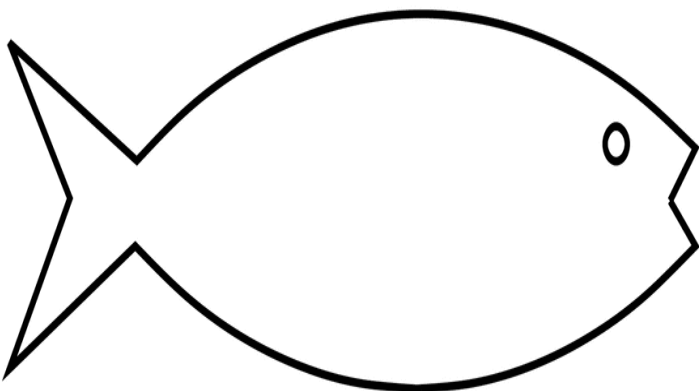
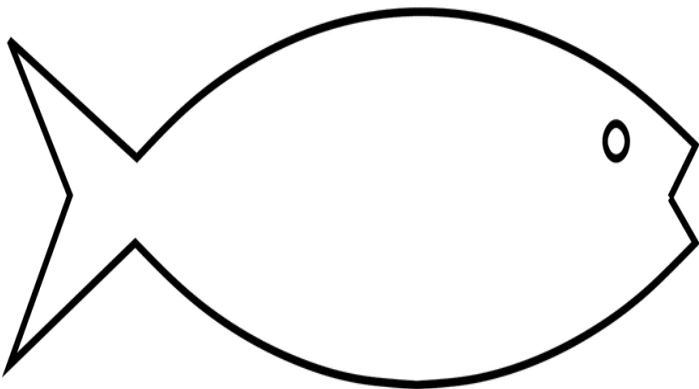
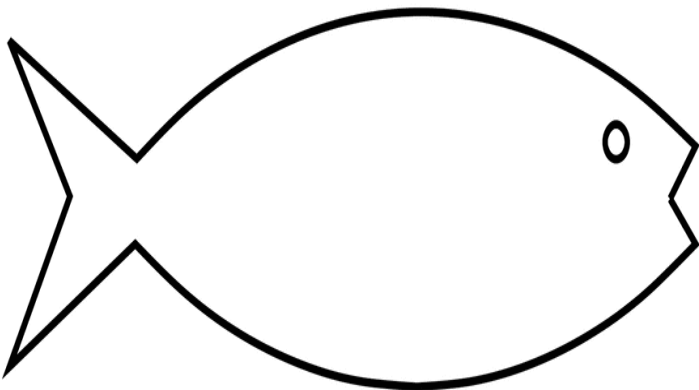
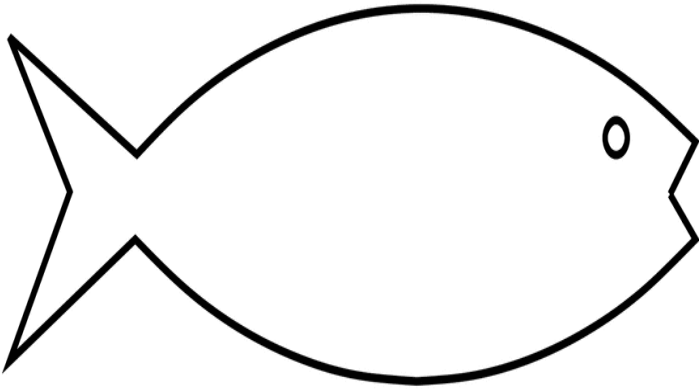
Chief Makua then asked, “How many lau?”

The farmer did not understand the old way of counting so Mr. Kane replied, “There are: 3 lau, 2 ka’au, and 4 kauna.

HOW MANY TOTAL? _____

Write a mathematical equation using this information:

Hawaiian Counting Guide



1. Read together:

The Hawaiian people had a very interesting way of counting. They placed their numbers into groups. The number four made a lot of sense to them. A fisherman could hold four fish by their tails, between the five fingers of his hand. A farmer could hold four taro for planting, or what the Hawaiians call *huli*, between the five fingers of his hand.

2. Using a pencil, write descriptions below on each fish. Cut out and color fish any color. Punch holes in each eye. Use yarn to hold fishes together.

Fish 1. 4 ones make a **Kauna** = 4

Fish 2. 10 Kauna make a **Ka'au** = 40

Fish 3. 10 Ka'au make a **Lau** = 400

Fish 4. 10 Lau make a **Mano** = 4,000

3. Solve the problem below using your fishes and a scratch paper.

In 1866, Chief Makua was discussing land with Mr. Kane, when a farmer came. Chief Makua asked the farmer, "What do you have?" The farmer said, "I came to report how many taro stalks you have." Chief Makua then asked, "How many lau?" The farmer did not understand the old way of counting so Mr. Kane replied, "There are, 3 **lau**, 2 **ka'au**, and 4 **kauna**."

4. Write the equation below. What is your answer?

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5. Students, pair up and write a short Hawaiian equation story to share it with your class. Check to see if their answers are the same as yours!

Write your story in the box below.