Polynesian Voyaging & The Wayfinding Art

A Comprehensive Curriculum Guide for Teachers and Students

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POLYNESIAN VOYAGING & THE WAYFINDING ART
TABLE OF CONTENTS

POLYNESIAN VOYAGING & THE WAYFINDING ART

INTRODUCTION

Some students are attracted by a challenging puzzle. Others are captivated by a exciting adventure. ***Polynesian Voyaging & The Wayfinding Art*** offers both.

The puzzle: Where did the Polynesians come from? This controversial issue has engaged explorers, scientists and historians for hundreds of years. This books presents early theories and information, as well as modern archaeological and linguistic evidence; challenging students to discover the most likely answer to the question of Polynesian origin.

The adventure: *Hokule'a,* a replica of an ancient Polynesian voyaging canoe, sails from island to island in the Pacific Ocean — without the use of navigational instruments. Students will learn about the voyages of Hokule'a, how she sails and how she is guided by her Hawaiian navigator.

Lesson plans and learning objectives are outlined at the beginning of each section. The entire curriculum encourages a team approach to learning. Almost all of the activities require students to work together in pairs or small groups. The interdisciplinary activities are designed to supplement standard programs in History, Geography, Social Studies and Science classes at the Junior High or High School level.

CONTENT

Each chapter includes the following:

Overview: General description of the information and activities in the section.

Objectives: Skills and knowledge students are expected to acquire.

Preparation: Getting ready for the activities in the classroom.

Time Estimate: Number of class periods (40 minutes) needed to complete each section.

Wrap-up: Questions and discussions to reinforce what students learned.

Activity and Information Cards: Designed to be copied for pairs or small groups.

Glossary: Definitions in the student materials on the page where they appear.

SECTION 1 - GEOGRAPHY

PACIFIC OCEAN & PACIFIC ISLAND GROUPS

OVERVIEW

People in the South Pacific Islands have a different perception of the planet from those who live on a large continent. The world of these island dwellers consists primarily of the ocean — and of the small pieces of land that populate it. These explorers of ancient times crossed the expansive "wilderness" of the ocean instead of the plains and mountains of a continent. The activities in this section begin to familiarize students with this part of the world.

OBJECTIVES

Students will be able to:

- locate the Pacific Ocean on a world map or globe
- identify the three main Pacific island groups: Polynesia, Melanesia, Micronesia
- describe **longitude** and **latitude** and demonstrate understanding of **parallels** and **meridians**
- interpret map symbols (winds, currents, population, crops)
- use a map to communicate points of origin and destination
- describe seasonal winds and currents in the Pacific and where the islands are in relation to these winds and currents
- explain the impact of the winds and currents on ocean travel

PREPARATION

1. Make one copy of each of the student sheets listed below for each small group of two or three students:

   Activity Card #1: GUESS MY ORIGIN AND DESTINATION
   Information Card #1A: POLYNESIAN TRIANGLE GRID MAP
   Information Card #1B: REGIONS OF THE PACIFIC MAP
   Information Card #1C: PREVAILING WINDS DURING JANUARY
   Information Card #1D: PREVAILING WINDS DURING JULY

2. **Optional:** Have a large map of the world or a globe at the front of the classroom..
3. Assign students to work on GUESS MY ORIGIN AND DESTINATION in pairs or small groups and arrange desks accordingly.

TIME ESTIMATE

1 class period for introduction and GUESS MY ORIGIN AND DESTINATION

1/2 class period for wrap-up discussion the following day

Lesson Plan

1. Point out the Pacific Ocean on a large world map. Explain that the Pacific Ocean covers one-third of the earth's surface and contains half of the world's water. The world's largest ocean, it has at least 7,500 islands.
2. Explain that early European sailors used a grid, or a system of lines to help navigate this huge area of water. Tell students that they will be playing a game to teach them about how sailors find their way across the ocean using this system. Divide class into pairs or small groups.
3. Hand out Information Card #1A: POLYNESIAN TRIANGLE GRID MAP to each group. Explain that **latitude** lines, called **parallels**, are imaginary east /west circles around the earth. The equator is the parallel that divides the earth in half. The northern half is called the Northern Hemisphere, the southern half is called the Southern Hemisphere. Explain that parallels are read in terms of "degrees north or south." For example: the latitude of Berkeley, California is 38 degrees north. Ask students to use their grid map to determine the latitude of Honolulu, Hawai'i.
4. Point out that **longitude** lines, called **meridians**, are imaginary north/south circles around the earth, crossing at the poles. Explain that meridians are read in terms of "degrees east or west." For example, Honolulu is 20 degrees east. Have students use their grid map to determine longitude for Berkeley.
5. Pass out the Information Card #1B: REGIONS OF THE PACIFIC MAP. Point out the three main Pacific Island groups:
   - Polynesia means "many islands" and forms the Polynesian Triangle: from the Hawaiian Islands, 20 degrees north, to New Zealand, 45 degrees south, to Easter Island, 110^{o} east.
   - Micronesia means "small islands " and includes: the Marshall, Caroline, Mariana and Gilbert Islands and Nauru.
   - Melanesia means "islands of the blacks" and includes the Bismarck Archipelago, Solomon Islands, New Hebrides, New Caledonia, New Guinea and Fiji.
6. Have students work in small groups to figure out the longitude and latitude of each island group (or specific islands).
7. Distribute to pairs or small groups: Activity Card #1: GUESS MY ORIGIN AND DESTINATION, and Information Cards #1C: PREVAILING WINDS DURING JANUARY and #1D: PREVAILING WINDS DURING JULY.
8. Discuss the rules on Activity Card #1. Give your students the rest of the period to play the game.

Wrap-up

On the day following the GUESS MY ORIGIN AND DESTINATION activity, ask the following:

- How far North did you travel? How far South? Why didn't anyone go further North or South? (no islands?)
- Were most of your trips east to west or west to east? (probably east to west) Why? (winds, currents)
- Are some trips possible in January that are not possible in June? What are they? Why?
- Are there any trips that are possible in both January and June? If so, how do those people get back home?
- What are some ways that the geography of the Pacific is different from the geography of where you live? What are some ways they are similar?
- How is knowing latitude and longitude helpful to ocean travelers?

ACTIVITY CARD #1

GUESS MY ORIGIN AND DESTINATION

1. Play the game with a partner or in small teams/groups.

2. Pretend you are going on a voyage from one of the Pacific Islands to another. The island you start from is your ORIGIN. The island you are trying to reach is your DESTINATION.

3. Look at the Pacific Islands map and pick an ORIGIN and a DESTINATION for your voyage but do not tell your partner (or the other group).

4. Take turns asking each other "yes" or "no" questions to try and figure out the other person's (or group's) ORIGIN and DESTINATION. The questions might relate to longitude, latitude, distance from islands on the map, wind direction, etc. Use the information about JANUARY and JULY WINDS to help you ask and answer questions.

   Example: Is your island north of 30° latitude?

   Example: Which way do the winds blow in January?

   Example: Do I go North to reach your destination?

5. Keep asking questions until you figure out each other's ORIGIN and DESTINATION. The winner is the person or team that guesses first.