

Goal(s): Student will

- Increase knowledge about collecting and graphing data.
- increase knowledge of values.
- increase knowledge about Ka 'Upena o ke Ola concept.

Unit I

Relating to Science

Lesson #7

Standards:

- Science 1, 3
- Language Arts 1-2, 4, 6
- Math 11,13
- Health 4-5
- GLO 1-5

Topic	Task/Activity	Materials/Time	Notes
Entry	<ul style="list-style-type: none"> • Invite Ss to form pairs and share examples on value cards. 	Homework	
Review	<ul style="list-style-type: none"> • Ask Ss to form groups of 4.. • Provide directions for group activity using Value Cards: <ol style="list-style-type: none"> 1. Each S selects one of their cards and pantomimes the value. 2. Group members guess which value was exemplified and explain why they think this. 3. Ss round-robin share until all cards are read or time for activity ends. • Share the importance of values and the role they play in life. 	Value Cards	
Preview	<ul style="list-style-type: none"> • Display OH #1.1 and connect to today's 5 topics: <ol style="list-style-type: none"> 1. Values 2. Collecting data 3. Analyzing data 4. Knowing Yourself 5. Ka 'Upena o ke Ola Project 	Unit Overview OH #1.1	
Video and Values	<ul style="list-style-type: none"> • Invite Ss to revisit the Kūpuna Values video. • Ask S to take notes focusing on what values are shared by these elders (<i>redefine definition of a value if needed</i>). • After the video, facilitate a brief discussion about: <ul style="list-style-type: none"> ○ Values discussed/connections to value cards ○ Values poster ○ Connections to scientific method • Close by explaining that one key value for science is honesty-being truthful while collecting and analyzing data is critical, regardless if these data match your hypothesis or not. 	<i>The Mana'o of Nā Kūpuna</i> video (11 mins.) Est: 15 minutes	

Topic	Task/Activity	Materials/Time	Notes
Collecting Data	<ul style="list-style-type: none"> Instruct group members to: <ol style="list-style-type: none"> Share ideas on how to collect their data. Teach groups “fist-to-five” strategy as a means of coming to consensus using OH #7.1. Monitor groups to assist Ss in making the best choices. Debrief, making sure Ss understand they need final drafts. 	Data Collection Form (homework) Fist-to-Five OH #7.1 Est: 10 minutes	
Graphing Data	<ul style="list-style-type: none"> Invite prior knowledge about graphs. Distribute Graphing Data handout: OH #7.2-7.3 and review the three types of graphs shown. Ask Ss to think about which type of graph might visually describe their data best (deciding which type and why you think so by next class session). Note: <i>Re-teach in math class as needed.</i>	Graphing Data OH #7.2-7.3 and Handout #1 Est: 5-10 minutes	
Knowing Yourself	<ul style="list-style-type: none"> Revisit definition of science (OH #3.1) to help Ss understand purpose for their first individual project. Remind Ss that science is a way of understanding ourselves, the world, and our place in the world. Ask Ss to form heterogeneous groups (4s) to discuss the importance of understanding ourselves. Distribute handout (“What’s So Important about Knowing Yourself”) and select someone from each group to read the story aloud. Ask Ss to summarize key concepts by asking them to respond to the following questions: <ul style="list-style-type: none"> <i>Do you agree or disagree with the writer? Why?</i> <i>What other reasons might it be helpful to understand yourself?</i> Ask two of the four members of the group to “cross-over” to another group and share what their initial group discussed. Debrief in large group and add your reasons why understanding “sense of self” is important/helpful. 	What is Science OH #3.1 (Lesson 3) What’s So Important about Knowing Yourself Worksheet #1 Est: 10-15 minutes	

Topic	Task/Activity	Materials/Time	Notes
Ka 'Upena o ke Ola Project	<ul style="list-style-type: none"> Distribute Ka 'Upena o ke Ola Project Guide, modeling concept of "skimming and scanning" major headings of worksheet. Discuss in depth the first part of the project. 	Ka 'Upena o ke Ola Project Guide Est: 10-15 minutes	
Review	<ul style="list-style-type: none"> Ask for volunteers to share new things they learned about today's lesson. Share that next session Ss will finish creating their graph and poster for their People Patterns group poster/visual display. Answer any questions about this introductory group project. 	Est: 2-3 minutes	
Homework	<ul style="list-style-type: none"> Explain homework assignment while referring to the wall chart or OH #7.4. WHAT: Ka 'Upena o ke Ola Project. HOW: <ol style="list-style-type: none"> Read project guide with an adult at home (ask for support). Write questions you have and mark interesting items to research. WHAT: "What's Important about Knowing Yourself." HOW: <ol style="list-style-type: none"> Share "What's Important...." with adult and complete reflection section. 	Wall-chart or OH #7.4 Ka 'Upena o ke Ola Project Guide What's Important about Knowing Yourself Worksheet #1 Est: 5-10 minutes	