Ka Waha o Ka Manā 2011

Student Name:

Wa'a Camp May 16-20, 2011 Schedule

Day/Time	Activity
PO'AKAHI	
8:15:00	Depart HKM for Kualoa
9:15:00	Arrive KualoaProtocol at AhuHookupu
10.00.00	Unload Gear-set up camp
10:00:00	PID Wa'a Blessing Rotations
10:30:00 12:00:00	Lunch
1:00:00	Transport to Maelieli
3:00:00	Transport to Machen Transport to Kualoa
3:30-5:00	Skills Review: Knots, Compass, Wa'a
5:00-6:00	Showers, Prep Dinner, Study Time
6:00-7:00	Dinner
7:00-745	Clean Up, Study Time, Showers
8:00-10:00	Evening Reading & Questions, Star Watch
10:30:00	Wa Hiamoe
PO'ALUA	
4:30:00	Moku Ka Pawa: Observations
5:00:00	brush teeth, clean up personal gear
5:30:00	Morning observations, journal
6:00:00	Breakfast
6:30:00	Hooikaika Kino: Morning Stretch
7:00:00-8:00	Swim Test
8:00:00	Pack up and load vehicles for Kaalaea
9:00-11:00	Skills Training
11:30-4:00	Sailing: tacking, take GPS points, observations
4:00-5:00	Arrive at Kaalaea; unload, set up camp, study time
5:00-6:00	showers, prep dinner, study time
6:00-7:00	Aina Ahiahi
7:00-8:00	Clean up, showers, study time
8:00-9:00	Kukakuka with Uncle Buddy
9:00-10:00	Star Study
10:30:00	Lights Out

PO'AKOLU

4:30:00	Moku Ka Pawa: Observations
5:00:00	brush teeth, clean up personal gear
5:30:00	Morning observations, journal
6:00:00	Breakfast
6:30:00	Hooikaika Kino: Morning Stretch
7:00:00-9:00	Study Time, pack up
8:30:00	Transport to Heeia Kea
9-12:30	HIMB-Moku o Lo'e
12:30:00	Transport to Kaalaea
1:00-4:00	Sail to Heeia, arrive, protocol
5:00:00	showers, prep dinner, study time
6:00:00	Dinner
7:00:00	Clean Up, showers, study time
8:00-9:00	Talk story with Anake Hiilei
9:00-10:00	Stars, Space, and Place
10:30:00	Ho'i i ka hiamoe

PO'AHA

4:30:00	Moku Ka Pawa: Observations
5:00:00	brush teeth, clean up personal gear
5:30:00	Morning observations, journal
6:00:00	Breakfast
6:30:00	Hooikaika Kino: Morning Stretch
7:00-12:00	Paepae o Heeia
12:00:00	Lunch at Heeia
1:00:00	Depart Heeia for Kokokahi
4:00:00	Arrive at Kokokahi, protocol with punana Leo
5:00:00	showers, prep dinner, study time
6:00:00	Dinner
7:00:00	Clean Up, showers, study time
8:00-9:00	Talk story with Anake Hiilei
9:00-10:00	Stars, Space, and Place
10:30:00	Ho'i i ka hiamoe

PO'ALIMA

4:30:00	Moku Ka Pawa: Observations
5:00:00	brush teeth, clean up personal gear
5:30:00	Morning observations, journal
6:00:00	Breakfast
6:30:00	Hooikaika Kino: Morning Stretch
7:00:00	Clean up, load
7:30-8:00	Kukakuka: looking back, moving forward. Students share a reflection, set a final goal
8:00-12:00	Sail to Kualoa, lunch at Ahu o Laka
12:00-1:00	Arrive at Kualoa, protocol at the ahu, closing mana'o
1:15:00	Transport to HKM

Table of Contents

HALA KU MANA'S INSTRUCTIONAL BENCHMARKS	5
HAWAI'I CONTENT AND PERFORMANCE STATE BENCHMARKS	6
SUNRISE OBSERVATION	29
NĀ MEA PĀ KA MAKANI (BEAUFORT WIND SCALE)	
KILO LOG	35
SAILING LOG	45
JOURNAL	50
WEATHER FORECAST - SCIENTIFIC INVESTIGATION	
KANEOHE BAY MO'OLELO	
KANEOHE BAY MAP	
'ŌLELO NO'EAU	
AHUPUA`A O KUALOA	63
THE BUILDING OF KEAWENUIA'UMI'S CANOE	65
WINDS OF KO'OLAUPOKO	
CREW DAILY SELF ASSESSMENT	
KUMU CHECKLIST OF DAILY 'ÕPIO HA'AWINA	
STAR COMPASS	77
MOʻOKŪʻAUHAU	
NOTES	
APPENDIX (SOLAR SYSTEMS, MAPPING & CHARTING, AND HIMB)	

Hala Ku Mana's Instructional Benchmarks

Our Cultural Educational Standards (CES) are embedded in our Instructional Benchmarks. Because Hawaiian culture is the foundation of our educational program, there is no arbitrary distinction made between 'academics' and 'culture.' The instructional benchmarks integrate expectations and strategies from Hawaiian culture and from other best practices in education. HKM's instructional benchmarks are focused on the following areas:

- 1. Curriculum and pedagogy grounded in Hawaiian culture;
- 2. Research-proven best practices in education;
- 3. Assessment as a tool for learning;
- 4. On-going staff development; and
- 5. Community involvement.

While these practices are integrated throughout the year, we have focused on four main benchmarks while voyaging Kaneohe Bay.

BENCHMARK #2

Support lifelong aloha for Hawaiian language, history, culture, and values by integrating them into all aspects of the curriculum. Thus, students are engaged in experiential study of Hawaiian protocols, ideologies and philosophies allowing for deeper cultural understanding, as well as emotional, physical, intellectual, social, and spiritual growth

BENCHMARK #8:

Instruction and assessment incorporates activities that activate multiple intelligences and allow for diverse demonstrations of mastery.

BENCHMARK #12: Students are engaged in goal setting and self-evaluation at regular intervals. Rubrics further support student ability to identify and meet specific criteria for quality products.

BENCHMARK #14:

Curriculum draws upon community resources and generates knowledge that will be shared with and useful to communities. Students and teachers engage in activities independently or collaboratively with community members as a means to sustain the well-being of the learning community.

Hawai'i Content and Performance State Benchmarks

Language Arts

- LA.9.3.2: Explain how historical and cultural information enriches the interpretation of a text
- **LA.9.4.1:** Write in a variety of grade-appropriate formats for a variety of purposes and audiences, such as:
 - narratives or scripts with a theme and details that contribute to a mood or
 - poems using a range of poetic techniques and figurative language in a variety of forms
 - literary, persuasive, and personal essays
 - research papers that state and support a thesis
 - functional writing including forms, applications, and questionnaires
 - pieces to reflect on learning and to solve problems
- LA.10.3.2: Describe independently how a literary text is related to historical and cultural themes and issues
- LA.10.4.1: Write in a variety of grade-appropriate formats for a variety of purposes and audiences, such as:
 - narratives or scripts with a theme and details that contribute to a mood or
 - poems using a range of poetic techniques and figurative language in a variety of forms
 - literary, persuasive, and personal essays
 - research papers that state and support a thesis
 - functional writing including forms, applications, and questionnaires
 - pieces to reflect on learning and to solve problems

Social Studies

- SS.11.7.2: Use tools and methods of geographers to understand changing views of world regions
- SS.CA.5.3: Explain causes and resolutions of cultural conflict (e.g., tribal, national, ethnic, religious, racial)
- SS.12G.2.2: Describe why places and regions are important to individual human identity and as symbols for unifying or fragmenting society (e.g., physical and symbolic characteristics of places, effects of climate on culture)
- **FA.9-12.1.7**: Analyze common characteristics of works of art and artifacts across time periods and among cultural groups to identify influences

Science

Describe how a testable hypothesis may need to be revised to guide a SC.BS.1.1: scientific investigation Defend and support conclusions, explanations, and arguments based on SC.BS.1.3: logic, scientific knowledge, and evidence from data Determine the connection(s) among hypotheses, scientific evidence, and SC.BS.1.4: conclusions Communicate the components of a scientific investigation, using SC.BS.1.5: appropriate techniques Engage in and explain the importance of peer review in science SC.BS.1.6: Revise, as needed, conclusions and explanations based on new evidence SC.BS.1.7: SC.BS.4.6: Explain the organization of life on Earth using the modern classification svstem Explain the possible origins and evolution of the solar system SC.ES.8.3: Describe how winds and ocean currents are produced on the Earth's surface SC.ES.8.6: Describe climate and weather patterns associated with certain geographic SC.ES.8.7:

Math

MA.AI.9.1: Determine if a linear pattern exists in a set of data and represent the data algebraically and graphically

locations and features

- MA.AII.4.1: Use advanced formulas or functions to solve problems dealing with determining a measurement based on another derived or given measure
- MA.G.5.3: Explain properties and characteristics of angle bisectors, perpendicular bisectors, and parallel lines

Student Name:		Quarter: 4
School Liaison: Majdouline LeRoy	y	Project: Kai/Nui
Course: Language Arts		Grade: 9/10
BENCHMARK LA.9.3.2: Explai interpretation of a text SAMPLE PERFORMANCE AS context, background of a text, and supporting material; considers this or discussions.	SESSMENT: The student: Explanorms and values of the culture b	ins the historical y reading or viewing
PERFORMANCE ASSESSMENt background of a text pertaining to reading or viewing supporting mat the text in writing or discussions.	Kahenohe Bay, and norms and va	lues of the culture by
EVIDENCE: Journal		
ADDITIONAL EVIDENCE: Ha	waiian Literature	
RUBRIC Points: Advanced = 4, Proficient =	= 3, Partially Proficient = 2, Novi	ce = 1
Notes and Comments:		
<u> </u>		
Kumu Signature Date		
		al Rubric Score

Student Name:	
School Liaison: Majdouline LeRoy	
Course: Language Arts	

Project: Kai/Nui

Grade: 9/10

Quarter: 4

BENCHMARK LA.9.4.1: Write in a variety of grade-appropriate formats for a variety of purposes and audiences, such as:

- narratives or scripts with a theme and details that contribute to a mood or tone
- poems using a range of poetic techniques and figurative language in a variety of forms
- literary, persuasive, and personal essays
- research papers that state and support a thesis
- · functional writing including forms, applications, and questionnaires
- pieces to reflect on learning and to solve problems

SAMPLE PERFORMANCE ASSESSMENT: The student: Writes grade-appropriate narratives or scripts that align theme and details with mood or tone; poems with a range of techniques and in a variety of forms; essays that respond to literature, persuade the reader, or explain a personal idea or point of view; research papers built around a thesis; functional writing like applications and questionnaires; and reflections that record what has been learned or chart the thinking process.

PERFORMANCE ASSESSMENT: The student: Writes grade-appropriate narratives that align theme and details with mood or tone; essays that explain a personal idea or point of view; functional writing like applications and questionnaires; and reflections that record what has been learned or chart the thinking process.

ADDITIONAL EVIDENCE: Journal, Research Investigation, and weather log

RUBRIC
Points: Advanced = 4, Proficient = 3, Partially Proficient = 2, Novice = 1

Notes and Comments:

Kumu Signature ______ Haumana Signature ______ Date _____ Final Rubric Score

Quarter: 4

Student Name:		Quarter: 4
School Liaison: Majdouline LeRoy		Project: Kai/Nui
Course: Language Arts		Grade: 9/10
BENCHMARK LA.10.3.2: Describe historical and cultural themes and issusceptible SAMPLE PERFORMANCE ASSE about a text (e.g., the novel only partion a defined historical or cultural viewinformation, quotations, or examples events or periods, biographies of authorizations.	ues CSSMENT: The student: Explicable represents the experience wpoint and defends this thesis from another resource (e.g., re	ains a critical opinion of abolitionists) based by citing specific eferences on historical
PERFORMANCE ASSESSMENT: sailing chiefs and defends this by citi from another resource.	: The student: Explains a critic ng specific information, quota	cal opinion about tions, or examples
EVIDENCE: Journal		
ADDITIONAL EVIDENCE: Hawa	niian Literature	
RUBRIC Points: Advanced = 4, Proficient = 3 Notes and Comments:	, Partially Proficient = 2, Nov	ice = 1
Kumu Signature	Haumana Signature	•
Date		
	Fir	nal Rubric Score

Student Name:
School Liaison: Majdouline LeRoy
Course: Language Arts

Project: Kai/Nui Grade: 9/10

Quarter: 4

BENCHMARK LA.10.4.1: Write in a variety of grade-appropriate formats for a variety of purposes and audiences, such as:

- narratives or scripts with a theme and details that contribute to a mood or tone
- poems using a range of poetic techniques and figurative language in a variety of forms
- literary, persuasive, and personal essays
- research papers that state and support a thesis
- functional writing including forms, applications, and questionnaires
- pieces to reflect on learning and to solve problems

SAMPLE PERFORMANCE ASSESSMENT: The student: Writes grade-appropriate narratives or scripts that align theme and details with mood or tone; poems with a range of techniques and in a variety of forms; essays that respond to literature, persuade the reader, or explain a personal idea or point of view; research papers built around a thesis; functional writing like applications and questionnaires; and reflections that record what has been learned or chart the thinking process.

PERFORMANCE ASSESSMENT: The student: Writes grade-appropriate narratives that align theme and details with mood or tone; essays that explain a personal idea or point of view; functional writing like applications and questionnaires; and reflections that record what has been learned or chart the thinking process.

ADDITIONAL EVIDENCE: Journal, Research Investigation, and weather log

RUBRIC
Points: Advanced = 4, Proficient = 3, Partially Proficient = 2, Novice = 1

Notes and Comments:

Kumu Signature ______ Haumana Signature ______ Date _____ Date ______

Final Rubric Score

Student Name:		Quarter: 4
School Liaison: Majdouline LeRoy		Project: Kai/Nui
Course: Social Studies		Grade: 9/10
BENCHMARK SS.11.7.2: Use tools are changing views of world regions SAMPLE PERFORMANCE ASSESS epresentations to understand changing of	MENT: The student: Uses geo	ographic
Christopher Columbus.		
PERFORMANCE ASSESSMENT: The understand changing conceptions of the		presentations to
EVIDENCE: Map		
ADDITIONAL EVIDENCE: Hawaiian	n Literature	
RUBRIC Points: Advanced = 4, Proficient = 3, Pa	artially Proficient = 2, Novice	= 1
<u> </u>		
 		
Kumu Signature	Haumana Signature	
Date	Date	
		Rubric Score

Student Name:		Quarter: 4
School Liaison: Majdouline LeRoy Course: Social Studies		Project: Kai/Nui Grade: 9/10
BENCHMARK SS.CA.5.3: Explain c tribal, national, ethnic, religious, racial SAMPLE PERFORMANCE ASSES)	, J
Indo-Pakistani conflict in Kashmir.	SIVILIVI. THE Student. Describes	the matory of the
PERFORMANCE ASSESSMENT: 1 located in Kaneohe Bay.	The student: Describes the history	of the fishponds
EVIDENCE: Journal		
ADDITIONAL EVIDENCE: Hawaiia	an Literature	
RUBRIC Points: Advanced = 4, Proficient = 3, F Notes and Comments:	Partially Proficient = 2, Novice =	1
Kumu Signature Date	Haumana Signature Date	
	Final Ru	bric Score

Student Name: School Liaison: Majdouline LeRoy		Quarter: 4 Project: Kai/Nui Grade: 9/10
Course: Social Studies		Grade: 9/10
BENCHMARK SS.12G.2.2: Describe vindividual human identity and as symbol physical and symbolic characteristics of	s for unifying or fragmenting s	ociety (e.g.,
SAMPLE PERFORMANCE ASSESS between a student-selected culture and it		the connections
PERFORMANCE ASSESSMENT: The current Kaneohe Bay and its traditional l		tions between the
EVIDENCE: Map		
ADDITIONAL EVIDENCE: Weather	Log Worksheets	
RUBRIC Points: Advanced = 4, Proficient = 3, Pa	rtially Proficient = 2, Novice =	1
Notes and Comments:		
11		
11		
1		
<u> </u>		
11		
Kumu Signature Date	Haumana Signature Date	
	Final R	ubric Score

Student Name: School Liaison: Majdouline LeRoy Course: Social Studies		Quarter: 4 Project: Kai/Nui Grade: 9/10
BENCHMARK FA.9-12.1.7: Analyzartifacts across time periods and amor	ze common characteristics of war active and cultural groups to identify in	orks of art and
SAMPLE PERFORMANCE ASSES art that reflects influences from a select	SSMENT: The student: Create cted culture or historical period	es an original work of l.
PERFORMANCE ASSESSMENT: reflects influences from Hawaiian cult	The student: Creates an originature.	al work of art that
EVIDENCE: Wa'a workbook		
ADDITIONAL EVIDENCE:		
RUBRIC Points: Advanced = 4, Proficient = 3, Notes and Comments:	Partially Proficient = 2, Novice	e = 1
	-	
		Щ
		il i
Kumu Signature Date	Haumana Signature Date	
		Rubric Score

Student Name:		Quarter: 4
School Liaison: Majdouline LeRoy		Project: Kai/Nui
Course: Science		Grade: 9/10
BENCHMARK SC.BS.1.1: Describe how a to guide a scientific investigation SAMPLE PERFORMANCE ASSESSMENT hypothesis and revises it based on data from primary sources (e.g., results, class data, info	NT: The student: Describes biological science investiga	s a testable ations and
PERFORMANCE ASSESSMENT: The str revises it based on data from biological scien results, class data, information from a reputal	ce investigations and prima	
EVIDENCE:		
ADDITIONAL EVIDENCE:		
RUBRIC Points: Advanced = 4, Proficient = 3, Partial Notes and Comments:	ly Proficient = 2, Novice =	1
<u> </u>		
Kumu Signature Date	Haumana Signature Date	
	Final R	ubric Score

Quarter: 4

Student Name:

School Liaison: Majdouline LeRoy Course: Science		Project: Kai/Nui Grade: 9/10
BENCHMARK SC.BS.1.3: Defend ar arguments based on logic, scientific known		tions, and
SAMPLE PERFORMANCE ASSES science lab report that draws logical coarguments from the results of investigations.	nclusions and formulates explar	
PERFORMANCE ASSESSMENT: Treport formulated by the Hawaii Institute logical conclusions and formulates explainvestigations.	te of Marine Biology Program (HIMB) that draws
EVIDENCE: HIMB research workshe	et	
ADDITIONAL EVIDENCE:		
RUBRIC Points: Advanced = 4, Proficient = 3, P Notes and Comments:	Partially Proficient = 2, Novice =	= 1
Kumu Signature Date	Haumana Signature Date	
		ubric Score

Student Name:		Quarter: 4
School Liaison: Majdouline LeRoy		Project: Kai/Nui
Course: Science		Grade: 9/10
BENCHMARKSC.BS.1.4: Determine the evidence, and conclusions SAMPLE PERFORMANCE ASSESSME science lab report that supports or refutes a	ENT: The student: Prepares	a biological
experimental data.		
PERFORMANCE ASSESSMENT: The sereport that supports or refutes a hypothesis obtained through the Hawai'i Institute of Management of Management (1988).	based on an analysis of expe	
EVIDENCE: HIMB research worksheet		
ADDITIONAL EVIDENCE:		
Points: Advanced = 4, Proficient = 3, Partis Notes and Comments:	ally Proficient = 2, Novice =	1
Kumu Signature Date	Haumana Signature Date	
	Final R	ubric Score

Student Name:		Quarter: 4
School Liaison: Majdouline LeRoy Course: Science		Project: Kai/Nui Grade: 9/10
BENCHMARK SC.BS.1.5: Communications appropriate techniques SAMPLE PERFORMANCE ASSES testable hypothesis, experimental designations.	SMENT: The student: Preser	nts the question,
biological science class using appropria essay, oral presentation, poster board, l	ate methods of communicatio	
PERFORMANCE ASSESSMENT: hypothesis, experimental design, analy science class using appropriate method	sis of data, and conclusions to	
EVIDENCE: Wa'a workbook		
ADDITIONAL EVIDENCE:		
RUBRIC Points: Advanced = 4, Proficient = 3, I	Partially Proficient = 2, Novic	e = 1
Notes and Comments:		
Kumu Signature Date	Haumana Signature _ Date _	
	Fina	l Rubric Score

Student Name:		Quarter: 4
School Liaison: Majdouline LeRoy		Project: Kai/Nui
Course: Science		Grade: 9/10
BENCHMARK SC.BS.1.6: Engage in an	d explain the importance of p	eer review in
science		
SAMPLE PERFORMANCE ASSESSM biological science investigation for logic a importance of peer review to the process of the proces	nd validity based on evidence	•
PERFORMANCE ASSESSMENT: The investigation for logic and validity based o review to the process of scientific inquiry.		
EVIDENCE: Peer review worksheet	,	
ADDITIONAL EVIDENCE:		
RUBRIC Points: Advanced = 4, Proficient = 3, Part	ially Proficient = 2, Novice =	1
Notes and Comments:		
Kumu Signature	Haumana Signature	
Date	Date	
	Final Rı	ıbric Score

Student Name: School Liaison: Majdouline LeRoy		Quarter: 4 Project: Kai/Nui
Course: Science		Grade: 9/10
BENCHMARK SC.BS.1.7: Revise, as needed new evidence	d, conclusions and explai	nations based on
SAMPLE PERFORMANCE ASSESSMENT science evidence from other valid sources and needed. Includes recommendations for improve	revises conclusion and e	
PERFORMANCE ASSESSMENT: The student: Reflects on new evidence from other valid sources and revises conclusion and explanations as needed. Includes recommendations for improving the investigation.		
EVIDENCE: Science Investigation reflection	worksheet	
ADDITIONAL EVIDENCE:		
RUBRIC Points: Advanced = 4, Proficient = 3, Partially Notes and Comments:	Proficient = 2, Novice =	1
Kumu Signature Date	Haumana Signature Date	
	Final Ri	abric Score

Student Name:		Quarter: 4
School Liaison: Majdouline LeRoy		Project: Kai/Nui
Course: Science		Grade: 9/10
BENCHMARK SC.BS.4.6: Explain classification system	the organization of life on Eartl	n using the modern
SAMPLE PERFORMANCE ASSE organisms using the modern classific the system's organization (e.g., struct relationships among organisms).	ation system and explains the ev	vidence that supports
PERFORMANCE ASSESSMENT using the modern classification system system's organization.		• –
EVIDENCE: Map		
ADDITIONAL EVIDENCE: Weath	her Log Worksheets	
RUBRIC Points: Advanced = 4, Proficient = 3 Notes and Comments:	, Partially Proficient = 2, Novice	e = 1
Kumu Signature Date	Haumana Signature _ Date	
		Rubric Score

Student Name:		Quarter: 4
School Liaison: Majdouline LeRoy Course: Science		Project: Kai/Nui Grade: 9/10
BENCHMARK SC.ES.8.3: Expla	in the possible origins and evol	
system		
SAMPLE PERFORMANCE ASS formation of the solar system.	SESSMENT: The student: Desc	cribes and diagrams the
PERFORMANCE ASSESSMEN of the solar system.	T: The student: Describes and o	liagrams the formation
EVIDENCE: Pictures of scaling th	ne solar system	
ADDITIONAL EVIDENCE: Sola	ar System diagram	
RUBRIC Points: Advanced = 4, Proficient =	3, Partially Proficient = 2, Nov	ice = 1
Notes and Comments:		
Kumu Signature	Haumana Signature	
Date	Date	
	Fin	al Rubric Score

Student Name: School Liaison: Majdouline LeRoy Course: Science		Quarter: 4 Project: Kai/Nui Grade: 9/10
BENCHMARK SC.ES.8.6: Describe how vertex surface	vinds and ocean currents ar	e produced on the
SAMPLE PERFORMANCE ASSESSME and ocean currents on weather maps and exp		•
PERFORMANCE ASSESSMENT: The str currents on weather maps as they voyage Ka that cause them		
EVIDENCE: Map		
ADDITIONAL EVIDENCE: Weather Log	Worksheets	
RUBRIC Points: Advanced = 4, Proficient = 3, Partial Notes and Comments:	ly Proficient = 2, Novice =	1
Kumu Signature Date	Haumana Signature Date	
	Final Ru	ubric Score

Student Name: School Liaison: Majdouline LeRoy	Quarter: 4 Project: Kai/Nui
Course: Science	Grade: 9/10
BENCHMARK SC.ES.8.7: Describe climate ar certain geographic locations and features SAMPLE PERFORMANCE ASSESSMENT: between certain geographic locations (e.g., latitumountain range) and specific weather patterns (e orographic rainfall).	The student: Describes the relationships de, proximity to large bodies of water,
PERFORMANCE ASSESSMENT: The studer certain geographic locations in Kaneohe Bay	nt: Describes the relationships between
EVIDENCE: Map	
ADDITIONAL EVIDENCE:	
RUBRIC Points: Advanced = 4, Proficient = 3, Partially P Notes and Comments:	roficient = 2, Novice = 1
Kumu Signature H Date	aumana Signature Date Final Rubric Score

Student Name: School Liaison: Majdouline LeRoy	Quarter: 4 Project: Kai/Nui
Course: Math	Grade: 9/10
BENCHMARK MA.AI.9.1: Determine if a line represent the data algebraically and graphically SAMPLE PERFORMANCE ASSESSMENT:	•
the data and/or a graph of the data to justify whe	
PERFORMANCE ASSESSMENT: The studer and/or a graph of the weather data to justify whe	
EVIDENCE: Weather Chart	
ADDITIONAL EVIDENCE: Weather Log Wo	orksheets
RUBRIC Points: Advanced = 4, Proficient = 3, Partially P Notes and Comments:	Proficient = 2, Novice = 1
Kumu Signature H	faumana Signature
	Final Rubric Score

Student Name:	Quarter: 4
School Liaison: Majdouline LeRoy	Project: Kai/Nui
Course: Math	Grade: 9/10
BENCHMARK MA.AII.4.1: Use advanced formulas or dealing with determining a measurement based on another	•
SAMPLE PERFORMANCE ASSESSMENT: The stude solve for a specific measure (e.g., determines at what time reach its maximum height if the height is determined by the 5).	es an arrow shot into the air will
PERFORMANCE ASSESSMENT: The student: Evalu specific measure.	ates a formula to solve for a
EVIDENCE: Mapping and Charting Kaneohe Bay work	sheet
ADDITIONAL EVIDENCE: Map	
RUBRIC Points: Advanced = 4, Proficient = 3, Partially Proficient	= 2, Novice = 1
Notes and Comments:	
Kumu Signature Haumana Date	Signature Date
	Final Rubric Score

Student Name:		Quarter: 4
School Liaison: Majdouline LeRoy		Project: Kai/Nui
Course: Math		Grade: 9/10
BENCHMARKMA.G.5.3: Explain perpendicular bisectors, and parallel	• •	gle bisectors,
SAMPLE PERFORMANCE ASSI compass to construct angle bisectors		
PERFORMANCE ASSESSMENT construct angle bisectors, perpendicu Kaneohe Bay to chart course		
EVIDENCE: Map		
ADDITIONAL EVIDENCE:		
RUBRIC Points: Advanced = 4, Proficient = 3 Notes and Comments:	3, Partially Proficient = 2, Novice =	1
Kumu Sianatura	Haumana Signature	
Kumu Signature	Date	
		ıbric Score

	Date:	Location:
<u> </u>		

Date:	Location:

Date:	Location:

Date:	Location:

Date:	Location:
	·

Nā Mea Pā Ka Makani (Beaufort Wind Scale)

Devised by British Rear-Admiral, Sir Francis Beaufort in 1805 based on observations of the effects of the wind. **Beaufort** Wind Speed Wave **Effects** WMO* Effects observed on observed on number Height land (force) Knots **MPH** (feet) description the sea Sea is like a mirror Calm under under 1 1 1 1-3 0.25 Light air Ripples with 1 - 3appearance of scales, no foam crests Small wavelets; crests 2 4 - 64-7 0.5 - 1Light of glassy appearance, breeze not breaking 8-12 Gentle Large wavelets; crests 3 7-10 2-3 begin to break; breeze* scattered whitecaps 4 11-16 13-18 31/2-5 Moderate Small waves, breeze becoming longer, numerous whitecaps Moderate waves, taking 5 17-21 19-24 6 - 8Fresh longer form; many breeze whitecaps; some spray Larger waves forming; 91/2-13 6 22 - 27 25 - 31Strong whitecaps everywhere; breeze more spray Sea heaps up; white 7 28 - 33 32 - 38 131/2 -Near gale foam from breaking 19 waves begins to be blown in streaks Moderately high waves of 8 34-40 39-46 18 - 25Gale greater length; edges of crests begin to break into spindrift; foam is blown in well-marked streaks High waves; sea begins to 9 41 - 47 47 - 5423 - 32Strong roll; dense streaks of foam; gale spray may begin to reduce visibility Very high waves with Storm 10 48 - 55 55 - 6329 - 41overhanging crests; sea takes white appearance as foam is blown in very dense streaks; rolling is heavy and visibility is reduced Violent Exceptionally high 11 56-63 64-72 37 - 52waves; sea covered with storm white foam patches; visibility further reduced Air filled with foam; sea 12 64 73 45 and Hurricane completely white with over and and driving spray; visibility over over greatly reduced

^{*}WMO - World Meteorological Organization

Kilo Log

La:
Observations:
Forecast Summary (from weather radio):
Porceast Summary (from weather radio).
Wind Direction (use landmarks, compass direction, describe, Beaufort Scale):
Precipitation:
Primary Cloud Types:
,

Surf:	
Akau:	
Hema:	
Hikina:	
Komohana:	
Sun	
Sunrise (Time/House/Quadrant):	
Sunset (Time/House/Quadrant):	
Moon	
Moon Phase:	
Moonrise (Time/House/Quadrant):	
Moonset (Time/House/Quadrant):	
Morning Tides	
Low (Time/Height):High (Time/Height):	
ngn (1 mic/1 cight).	
Evening Tides	
.ow (Time/Height):	
ligh (Time/Height)	

La:
Observations:
Forecast Summary (from weather radio):
Wind Direction (use landmarks, compass direction, describe, Beaufort Scale):
,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,
Precipitation:
Primary Cloud Types:

Surf:	
Akau:	
Hema:	
Hikina:	
Komohana:	
Sun	
Sunrise (Time/House/Quadrant):	
Sunset (Time/House/Quadrant):	
Moon	
Moon Phase:	
Moonrise (Time/House/Quadrant):	
Moonset (Time/House/Quadrant):	
Morning Tides	
Low (Time/Height):	
High (Time/Height):	
	•
Evening Tides	
Low (Time/Height):	
High (Time/Height).	

Surf:	
Akau:	
fema:	
Hikina:	
Komohana:	
Sun	
Sunrise (Time/House/Quadrant):	
Sunset (Time/House/Quadrant):	
Moon	
Moon Phase:	
Moonrise (Time/House/Quadrant):	_
Moonset (Time/House/Quadrant):	_
, , , , , , , , , , , , , , , , , , , ,	
Morning Tides	
Low (Time/Height):	
ligh (Time/Height):	
Evoning Tidos	
Evening Tides	
Low (Time/Height): High (Time/Height):	
ngn (i nne/ i leight <i>)</i> .	

La:
Observations:
Forecast Summary (from weather radio):
Wind Direction (use landmarks, compass direction, describe, Beaufort Scale):
Precipitation:
Primary Cloud Types:

Surf:
Akau:
Hema:
Hikina:
Komohana:
Sun
Sunrise (Time/House/Quadrant):
Sunset (Time/House/Quadrant):
Moon
Moon Phase:
Moonrise (Time/House/Quadrant):
Moonset (Time/House/Quadrant):
Morning Tides
Low (Time/Height):
High (Time/Height):
Evening Tides
Low (Time/Height):
High (Time/Height):

La:
Observations:
Forecast Summary (from weather radio):
Wind Direction (use landmarks, compass direction, describe, Beaufort Scale):
wind Direction (use landmarks, compass direction, describe, Beddioit Scale).
Precipitation:
Primary Cloud Types:

Surf:	
Akau:	
Hema:	
Hikina:	
Komohana:	
Sun	
Sunrise (Time/House/Quadrant):	
Sunset (Time/House/Quadrant):	
Moon	
Moon Phase:	
Moonrise (Time/House/Quadrant):	
Moonset (Time/House/Quadrant):	
M	
Morning Tides	
Low (Time/Height):	
High (Time/Height):	
Evening Tides	
Low (Time/Height):	
High (Time/Height):	

Sailing Log

Instructions:

The sailing log includes detailed information about your location, the weather, what you did for the day, what you learned, and what you want to know more about. Sailing logs are approximately 1 page in length.

Sample:

1.22.07 Ka'alaea, Koolaupoko, O'ahu

Today was our first day at the wa'a this quarter. We met Aunty Kahape'a at her house in Ka'alaea. Kanehunamoku is moored there. Kualoa Beach Park is closed due to a reoccurring sewage problem. It was a beautiful day and not much wind. We learned about the parts of the anchor and had a review of the star compass. I was on the first crew to go out sailing today. We had a Maori guy come film us onboard. The winds were light but we were still able to sail and practice some tacks. Our group did good, but we could do better. I think I forgot some things over the break. I got to practice steering with the new paddle and working the jib sheet lines. I want to get better at steering a straight line and learning the channel markers. Next time we go sailing, I want to steer first.

Sailing Log

Date:	/ /	Location:

Sailing Log	Sa	ili	ng	Log
-------------	----	-----	----	-----

Date:	/ /	Location:	
			_

S	ail	lin	ıg	L	og

Date:	/	/	Location:	
		· 		

Sa	i	l	i	n	g	L	og

Date:	//	Location:	

. 14	\mathbf{a}	•	rn	2	1

Date: ___/___

•			
ı.l	11	rn	ดเ

Date: ___/___

Journal

Date: ___/___/___

Journal

Date: ___/___

•					
- 1	•	11	rn	Я	ı
•	.,			~	

Date:	/	' /	1

Weather Forecast – Scientific Investigation

The chart below lists the weather forecast for Kāneohe Bay for the week of Wa'a camp.

Day	Wind Speed	Wind Direction	Precipitation
Monday	10-15	East	50 %
Tuesday	10-15	East	50 %
Wednesday			
Thursday			
Friday			

B 46			T			
IVI 9	ıke	Я	Pr	ean	etio	n

Based on your experience with weather, forecasts, and Kāneohe Bay how accurate do you think the weather forecast will be?

Hypothesis:		

Summary of Data Collected

Day	Wind Speed	Wind Direction	Precipitation	Primary Cloud Type
1				
2				
3				
4				
5				

Graph

On the graph below, create 2 line graphs comparing the wind speed you collected and the wind speed that was forecasted before the trip.

Wind Speed (mph)

	1 TO A TO	
	AAAAAAA	
		CONTROL SERVICE AND ADDRESS OF THE PROPERTY OF

Day

Discuss Results:	
Conclusions:	
If we were to sail for another week and conduct the same experiment comparing our data to the weather forecast, how would you revise your hypothesis based on data from this experiment?	a
Revised Hypothesis:	

Peer Review

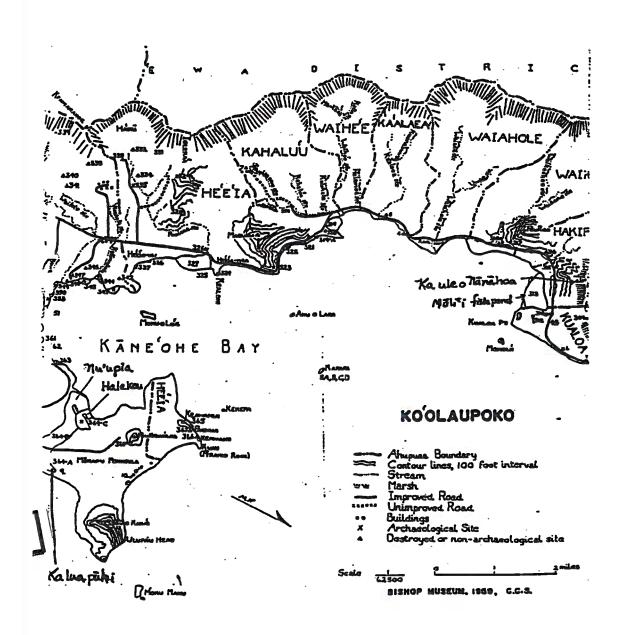
Find another student to participate in the peer review process.
Peer Review Partner:
Instructions Review your partner's data and check its validity. Review partner's graph for accuracy. Read discussion, conclusion, and revised hypothesis and verify they are supported by logical connections and evidence from data. Provide feedback to each other.
Describe process and feedback shared between partners:
What is the purpose of peer review for scientific inquiry?

Kaneohe Bay Mo'olelo

Our voyage is focused in understanding our sense of place, stewardship, and navigational skills within the Kaneohe Bay area. Through mo'olelo, we will be able to do the following:

- identify wahi pana place names of Kane'ohe on a map
- describe wahi pana of Kane'ohe bay
- retell the mo'olelo stories about wahi pana and na mea Hawai'i
- relate the mo'olelo to holomoana wa'a.

Kaneohe Bay Map



'Ōlelo No'eau

Kīkaha ka 'iwa he lā makani.

When the 'iwa bird soars on high it is going to be windy.

Said of a nice-looking, well-dressed person.

Kīkaha ka 'iwa i na pali.

The 'iwa bird soars over the cliff.

Said of a well-dressed person.

Ko'olau

Na pali hāuliuli o ke Ko'olau.

The dark hills of Ko'olau.

The hills and cliffs of the windward side of O'ahu are always dark and beautiful with trees and shrubs.

Kualoa

Ka limu lana o Kawahine.

The floating seaweed of Kawahine.

A term applied to the kauwa who were drowned at Kualoa, Oahu.

Ho'olalau ka Helena i Kualoa, pi'i ana ika pali o Kanehoalani.

In wandering about Kualoa, he ascends the cliffs of Kanehoalani.

He goes off his course and thereby gets nothing. On the cliff of Kanehoalani stands a phallic stone, a symbol of bad luck when seen in a dream.

Kāne'ohe

Kini Kailua, mano Kāne'ohe.

Forty thousand in Kailua, four thousand in Kāne'ohe.

A great number. Said by a woman named Kawaiho'olana whose grandson was ruthlessly murdered by someone from either Kailua or Kane'ohe. She declared that this many would perish by sorcery to avenge him. Another version credits Keohokauouli, a kahuna in the time of Kamehmeha, for this saying. He suggested sorcery as a means of destroying the conqueror's O'ahu enemies.

He'eia

Ka ua kani ko'o o He'eia.

The rain of He'eia that sounds like the tapping of walking canes.

Also said of the rain of Hilo.

Puku'i, 1983.

Ahupua'a o Kualoa

The ahupua'a of Kualoa (long back) is located at the northern end of Kane'ohe Bay, east of the ahupua'a of Haki pu'u. Like Haki pu'u, its valley depth is not as much as the rest of the ahupua'a of Ko'olaupoko, due to Mo'okapu o Häloa (Sacred section of Häloa), a mountainous ridge which branches off the Ko'olau mountain range and juts out to the east. Known to the ancient Hawaiians as Palikü (erect cliff), Kualoa is perfectly flat between the ocean and Lae o ka'oi'o, the mountainous formation that looks like a "forehead" and is the eastern-most tip of Mo'okapu o Häloa. (The name Palikü was changed to Kualoa by Mrs. Julie Judd Swanzy sometime around 1880.)

There are several reasons why *Kualoa* has great cultural significance. It is said that O'ahu's most famous burial cave (*Pohukaina*) was located in this sacred mountain, and its entrance was on the northern cliffs facing the *ahupua'a* of Ka'a'awa. (Another known entrance to the cave was at *Ka'ahu'ula* Spring, also in Ka'a'awa.) It was believed that *Pohukaina* cave went completely through the Ko'olau range, with numerous exits toward central O'ahu. Many said there were openings in Moanalua, Kalihi, Pu'iwa, and even as far away as Waipahu and Kahuku. *Mo'olelo* about this great cavern spoke of travelers venturing with kukui nut candles from leeward O'ahu to Kahuku. They spoke of being "in the mountain *Konahuanui*, sloping down toward Kahuku." These travelers even named the roof of the cavern "*Kauhuhu*," and gave counts of "many creeks, rivers, and streams" throughout the cavern.

Another reason for Kualoa's significance is that it was a place of refuge for ancient Hawaiians who were condemned to die. The land was under a special *kapu*, and anyone who was able to find their way to Kualoa could not be harmed. In addition, Kualoa was also the training grounds for young *ali*'i (chief) who needed to learn the traditions of the *ali*'i.

Because of its history and its sacredness, Kualoa was coveted by many *ali'i*. [A *mo'olelo* was told of a battle that broke out over this land in the 1770's because of its significance: "When the O'ahu *ali'i* (chiefs) and their *kahuna* (high priest) *Ka'öpulupulu* became dissatisfied with the rule of

Kümahana, they asked Kahahana to come to O'ahu and rule the island." (Kahahana was living on Maui at the time with his foster father, Kahekili Kahekili was the reigning chief of Maui.) Kahekili permitted Kahahana to rule on O'ahu, but in return, asked for the land of Kualoa and the rights to the highly valued "whale teeth" (palaoa pae) that washed ashore in Kualoa. (Whale teeth were highly prized possessions of the ali'i, and were worn as part of a necklace (lei niho palaoa) made with human hair, symbolizing royalty.) The kahuna (high priest) Ka'öpulupulu advised Kahahana that relinquishing the rights to Kualoa would mean a "virtual surrender of the emblems of sovereignty and independence for O'ahu," so Kahahana sent a reply denying Kahekili's request. This angered Kahekili. When he eventually came to "claim" Kualoa, he met opposition from Kahahana a battle ensued and Kahekili eventually won and conquered all of O'ahu.1

The mystery to Kualoa is that even after Kahekili conquered all of O'ahu, he never pursued the ahupua'a of Kualoa. It remained a sacred place for ali'i to train, as well as a place of refuge for condemned Hawaiians. Sometime after 1795 when Kamehameha I became the overall ruler of all the Hawaiian islands, he gave the lands of Kualoa to his favorite wife, Ka'ahumanu, after which they became part of the royal lands.

124

Appendix D: Historical Data related to Ko'olaupoko

In 1850, Kamehameha III sold approximately 622 acres of land in Kualoa and all its fishing rites offshore (which included Mokoli7 or Chinaman's Hat) to Dr. Gerritt P. Judd for \$1300. (Dr. Judd was a missionary doctor who arrived in Hawaii in 1837 and was a personal advisor to Kamehameha III.) Then, additional acreage in Hakipu'u and Ka'a'awa were purchased by Dr. Judd from the Wilder family for \$15,000 when the Wilder Plantation failed. This purchase increased the size of the estate to what it is today and is now under the Morgan Family name, who are Dr. Judd's descendants. This estate, Kualoa Ranch, Ltd., was so named in 1927 and has been used for various purposes over the last eight decades. During World War II, some of the lands of this estate was used as an auxiliary airstrip with many of the large monkeypod trees providing natural hangars for small planes. Much of the beach of Kualoa was condemned by the City and County of Honolulu and is now used as a park. Today, the Ranch is now being used as an activity center for both visitors and kama'aina (residents). Activities include jet skis, wind sailing, canoeing, boat rides, horseback riding, dune buggies, tennis, and helicopter rides.

The Building of Keawenuia'umi's Canoe

by Samuel M. Kamakau

[From *Ruling Chiefs of Hawai'i*, 38, 41-42. This passage has been translated by Kenneth Emory from terms identified by Mr. Kupihea.]

When Keawenuia'umi learned that Paka'a [his kahu iwikuamo'o or chief personal attendant] had run away, that he had left him and was gone, he was filled with longing for him. The chief ordered strong paddlers to go from Hawai'i to Kaua'i to seek him. They sought him on the leeward and windward sides as far as Ni'ihau, and returned to the presence of the chief to report that Paka'a could not be found. They had not gone to the remaining island, Ka'ula. "It might be that a certain man at Kaluako'i, Moloka'i, was he [they said]. He was accompanied by a young boy on a canoe. The boy asked us questions, but the man did not raise his head. We inquired for Paka'a, but the boy replied that no stranger was seen there." They [the chief's paddlers] returned, leaving t he two catching uhu fish at Kala'au Point.

Keawenuia'umi said, "I dreamt that Paka'a's spirit told me that he is on Ka'ula and will not come back until I, myself, go to fetch him. He will not return with the messengers of the chief. Great is my longing for my personal attendant. Let all of Hawai'i make double canoes and large single canoes, and let us go to fetch Paka'a."

Keawenuia'umi sent a proclamation to every high chief and every lesser chief for double canoes, for canoes that were joined together, and for single canoes, to be used in the search for the personal attendant of Keawenuia'umi. The chiefs were all supplied with canoes, but there was one thing lacking. There was no double canoe for the ruling chief. The cause of the delay in the making of that canoe was two birds. When the tree selected for the chief was about to be felled, these birds called from the very top of it; "Say, the log is rotten." After the tree was felled, it was found that the trunk was rotten. The chief hired many canoe-making experts, but no canoe was finished for him. The chief hired bird-catchers, those who gummed birds, but none could cat ch the birds. The naughty

birds which called about the decayed log flew away and vanished into the sky. They returned only when a koa tree was about to fall. The tree fell just after their cry of "The log is rotten" (puha ka waha). The chief was weary of them!

[The two birds were killed by the famous archer Pikoi-a-ka'alala, son of 'Alala and his wife Ko'uko'u, natives of Lihu'e, Kaua'i. In gratitude Keawenuia'umi gave Pikoi his daughter, and "all the lands on Hawai'i where bows and arrows were used".]

After the enemies of Keawenuia'umi had flown away to the sky, a man was found who was an expert in putting on canoe parts and in hollowing the log. His name was Lulana, and he came from Kipahulu, Maui. This man's skill was noticed when he went to the upland and saw two very large trees, one on either side of the trail. These were hollow trees used as dwellings by some of the canoe-makers. When the stranger went to the upland he noticed them and said to Keawenuia'umi's canoe-making experts, "These will make good canoes for the chief, as the centers are hollowed already."

The chief's men replied, "Who would convert these hollow trees into canoes? They are used as shelters for canoe-makers, bird-catchers, and experts in canoe-making."

Lulana said, "These are easy to use, for the openings are already there. They will be fine canoes, and there are no defects. If these were made into canoes for the chief, they would be excellent."

The hewing began at the spot pointed out by Lulana, until both trees fell. The large side branches and tops were cut off, the bark stripped until none remained on the outside, the prow and stern shaped, the sides smoothed off, and the prow and stern polished smooth. The canoe was then turned up, the edges leveled, and as the canoe was already hollow, leaving only the two sides at the opening, the opening was then shaped. The opening was already there, so there was little work needed on it. The work was soon finished, and it was seen that there were no canoes to equal the canoes of Lulana in the days of 'Umi or of the ancient chiefs before him.

Word was carried to Keawenuia'umi of the fine canoes made by Lulana, that they were beautiful and free from defects. No canoes as beautiful had ever been seen in olden times. They were twenty anana long [20 arm spans, or 120 feet] and one anana and one iwi lei

[1 and 1/2 fathoms, or nine feet] in depth. When Keawenuia'umi heard of the doings of this expert who was unequalled in his skill, he was filled with happiness and joy. In no time the canoes were finished inside and ready to be hauled to the shore. Keawenuia'umi, the chiefs, lesser chiefs, and commoners hauled the canoes to the shore of Hilo. Lulana became a favorite and was made chief over all canoe experts (po'e kahuna kalai) on Hawai'i by Keawenuia'umi.

Lulana and all the experts put together the canoes of Keawenuia'umi. When the pieces (la'au) and all the things which belong to a canoe were fitted together, the canoe which was to take the place of the outrigger float (that is, the 'ekea canoe) was set alongside. Then the connecting booms ('iako) of the canoe were put on. When the four large inner booms had been fixed, then were added the two booms for holding together the forward and rear ends of the double-canoe (na 'iako elua i na umi o na umi'i o mua a me hope). Now the wash strakes (palepale) were set over the booms, on the inside and outside. In front were placed the weatherboard (kua po'i). After the clamping down of the rear pieces (uma) of the canoe and the fastening with running sennit-cord (ho lo 'aha), the platform (pola) midway between the canoes was lashed on.

Just over the arch of the main booms was set up the house for the chief, so that the chiefs could sleep on the platform. It was lashed securely (helea) with sennit just as for the lashing (lu'ukia ana) of the booms. There at the big boom over the large lu gs (pepeiao), the sail (pe'a) was set up (kukia). When the little imperfections of the canoe had been remedied, then all that was left was to sail it on the ocean.

Winds of Ko'olaupoko

UNDER THE WEATHER

LESSON # 2 TITLE: WINDS

Page 14 of 16

Holopali is of Ka'a'awa and Kualoa,

Kiliua is of Waikane,

Mololani is of Kua'a'ohe,

Ulumano is of Kane'ohe.

The wind is for Kaholoakeahole,

Puahiohio is the upland wind of Nu'uanu,

Malanai is of Kailua.

Limu-li-pu'upu'u comes ashore at Waimanalo,

'Alopali is of Pahonu,

At Makapu'u the winds turn,

The Kona winds turn, the Ko'olau winds turn,

He Holopali ko Kaaawa me Kualoa,

He Kiliua ko Waikane,

He Mololani ko Kuaaohe.

He Ulumano ko Kaneohe,

No Kaholoakeahole ka makani,

Puahiohio uka o Nuuanu,

Pualifolio uka 0 Nuuai

He Malanai ko Kailua,

Pae i Waimanalo ka limu-li-puupuu,

He Alopali ko Pahonu,

A Makapuu, huli ka makani,

Huli na Kona, huli na Koolau,



Date:

Standards	Kulia I ka nu'u	Makaukau	'Ano Makaukau	Makaukau 'ole	Examples/What/How/Why
Mālama					
Kuleana					
Take care of					
responsibilities,					
participate in					
activities, keep					
personal gear					
Kūlia i ka					
nu'u					
Strive to					
accomplish					
your goals,					
learning new					
Aloha					
kekahi i					
kekahi					
Respect for					
others, works					
well with crew					
Laulima					
Work together					
to accomplish					
tasks, take					
initiative, do					
without being					
asked					

	77.11.77		•		
Standards	nu'u	Makaukau	'Ano Makaukau	Makaukau ole	Examples/What/How/Why
Mālama					
Kuleana					
Take care of					
responsibilities,					
participate in					
activities, keep					
personal gear					
organized					
Kūlia i ka					
nu'u					
Strive to					
accomplish					
your goals,					
learning new					
Aloha					
kekahi i					
kekahi					
Respect for					
others, works					
well with crew					
and staff					
Laulima					
Work together					
to accomplish					
tasks, take					
initiative, do					
without being					
asked					
asked					

Standards Kulia Ika Makaukau 'Ano Makaukau 'ole Examples/What/How/Why Malama Ride and Frake care of responsibilities participate in activities, keep personal gear organized Kilia Ika Makaukau Makaukau Makaukau						
na na re of sibilities, sate in se, keep al gear led i ka i ka i ka i ka o o olish als, g new ff ff na ogether mplish ake re, do t being	Standards	Kulia I ka nu'u	Makaukau	'Ano Makaukau	Makaukau 'ole	Examples/What/How/Why
Kuleana Take care of responsibilities, seep personal gaar Külia i ka nu'u Strive to Strive to Strive to Strive to I caromplish your goals, learning new things Aloha kekahi i kekahi i Respect for others, works well with crew and staff U cocomplish tasks, take Work together to accomplish tasks, take initiative, do without being	Mālama					
responsibilities, participate in activities, keep personal gear organized with the compilish your goals, learning new things kekahi i kekahi i kekahi i kekahi i kekahi i kespeti for others, works well with crew and staff voluments of the compilish tasks, take initiative, do without being asked	Kuleana					
responsibilities, participate in activities, keep personal gear organized Kulia i ka nu'u Strive to Strive to Strive to accomplish your goals, learning new things Rehahi i kekahi	Take care of					
participate in activities, keep personal gear Congalized Külari ka Nu'u Kilari ka Nu'u Strive to accomplish your goals, learning new things Aloha Rekahi i Rekahi i Rekahi i Respect for others, works well with crew and staff Vork objective do without being lasks, take initiative, do without being accomplish tasks, take initiative, do without being accomplish tasks ake accomplish tasks take initiative, do without being accomplish tasks ake accomplish tasks.	responsibilities,					
activities, keep personal gear organized Külia i ka nu'u Strive to accomplish your goals, learning new things Aloha kekahi	participate in					
personal gear organized Külia i ka nu'u Strive to accomplish your goals, learning new things Aloha kekahi i ke	activities, keep					
Ktilia i ka nu'u Strive to accomplish your goals, learning new things Aloha kekahi Respect for others, works well with crew and staff Laulima Work together to accomplish tasks, take initiative, do without being asked	personal gear organized					
Strive to accomplish your goals, learning new things Aloha kekahi i kekahi i kekahi i kekali Respect for others, works well with crew and staff Laulima Work together to accomplish tasks, take initiative, do without being asked	Kūlia i ka					
Strive to accomplish your goals, learning new things Aloha kekahi i kekahi i kekahi i kespect for others, works well with crew and staff Laulima Work together to accomplish tasks, take initiative, do without being asked	nu'u					
accomplish your goals, learning new things Aloha kekahi kekahi Respect for others, works well with crew and staff Laulima Work together to accomplish tasks, take initiative, do without being asked	Strive to					
your goals, learning new things Aloha Rekahi i Respect for others, works well with crew and staff Laulima Work together to accomplish tasks, take initiative, do without being asked	accomplish					
things Aloha Rekahi i Respect for others, works well with crew and staff Laulima Work together to accomplish tasks, take initiative, do without being asked	your goals,					
kekahi i kekahi i kekahi i kekahi Respect for others, works well with crew and staff Laulima Work together to accomplish tasks, take initiative, do without being asked	learning new					
kekahi i kekahi kekahi Respect for others, works well with crew and staff Laulima Work together to accomplish tasks, take initiative, do without being asked	Chings					
kekahi kekahi Respect for others, works well with crew and staff Laulima Work together to accomplish tasks, take initiative, do without being asked	Aloha					
kekahi Respect for others, works well with crew and staff Laulima Work together to accomplish tasks, take initiative, do without being asked	kekahi i					
Respect for others, works well with crew and staff Laulima Work together to accomplish tasks, take initiative, do without being asked	kekahi					
others, works well with crew and staff Laulima Work together to accomplish tasks, take initiative, do without being asked	Respect for					
well with crew and staff Laulima Work together to accomplish tasks, take initiative, do without being asked	others, works					
And staff Laulima Work together to accomplish tasks, take initiative, do without being asked	well with crew					
Work together to accomplish tasks, take initiative, do without being asked	and staff					
Work together to accomplish tasks, take initiative, do without being asked	Laulima		:			
to accomplish tasks, take initiative, do without being asked	Work together					
tasks, take initiative, do without being asked	to accomplish					
initiative, do without being asked	tasks, take					
asked eing	initiative, do					
asked	without being					
	asked					

	nu'u		Makaukau	•	
,					
Kuleana		_			
Take care of					
responsibilities,					
participate in					
activities, keep					
personal gear					,
organized					
Kūlia i ka					
nu'u					
Strive to					
accomplish					•
your goals,					
learning new					
things					
Aloha					
kekahi i					
kekahi					
Respect for					
others, works					
well with crew					
and staff					
Laulima					
Work together					
to accomplish					
tasks, take					
initiative, do					
without being					
asked					

Standards	Kulia I ka nu'n	Makaukau	Makanekan Ano	Makaukau 'ole	Examples/What/How/Why	
Mālama						
Kuleana						
Take care of						
responsibilities,						
participate in						
activities, keep						
personal gear						
organized						
Kūlia i ka						
nu'u						
Strive to						
accomplish						
your goals,						
learning new						
Aloha						
kekahi						
kekahi						
Respect for						
others, works						
well with crew						
and staff						
Laulima						
Work together						
to accomplish						
tasks, take						
initiative, do						
without being						
asked						

Kumu Checklist of Daily 'Opio Ha'awina

Monday 5/16/2011

Sunrise Observation: Provide written observations and colored	The same of the sa	
illustrations.		
Kilo Log: Thoroughly completed weather log. Included detailed		
observations & forecasts. Documented sun & moon data.		
Calculated tides.		
Sailing Log:		
Sail Log included details about sail and experience.		
Journal: Provides thoughtful and thorough reflection of the day's		
experiences. Practices using high school appropriate writing		
techniques, format, and grammar.		
Daily Self Assessment:		
Honestly and thoroughly completed Daily Self Assessment and		
provided examples.		

Tuesday 5/17/2011

X			
Task	Meets Expectations	Needs improvement	Insufficient
Sunrise Observation: Provide written observations and colored			
illustrations.			
Kilo Log: Thoroughly completed weather log. Included detailed			
observations & forecasts. Documented sun & moon data.			
Calculated tides.			
Sailing Log:			
Sail Log included details about sail and experience.			
Journal: Provides thoughtful and thorough reflection of the day's			
experiences. Practices using high school appropriate writing			
techniques, format, and grammar.		•	
Daily Self Assessment:			
Honestly and thoroughly completed Daily Self Assessment and			
provided examples.			

Wednesday 5/18/2011

Task	Meets Expectations	Needs improvement	Insufficient
Sunrise Observation: Provide written observations and colored			
illustrations.			
Kilo Log: Thoroughly completed weather log. Included detailed	1		
observations & forecasts. Documented sun & moon data.			
Calculated tides.			
Sailing Log:			
Sail Log included details about sail and experience.			
Journal: Provides thoughtful and thorough reflection of the day's			
experiences. Practices using high school appropriate writing			
techniques, format, and grammar.			
Daily Self Assessment:			
Honestly and thoroughly completed Daily Self Assessment and			
provided examples.			

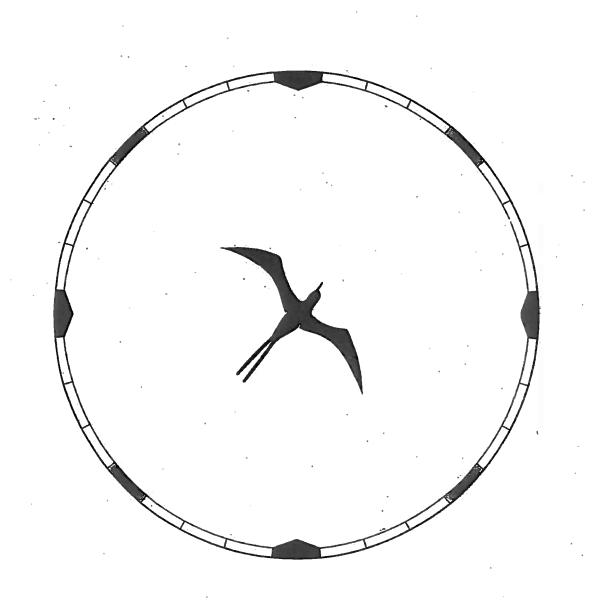
Thursday 5/19/2011

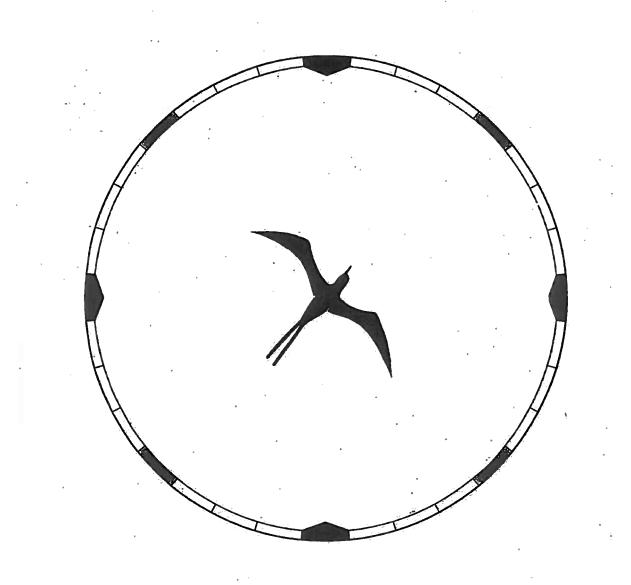
Task	Meets Expectations	Needs improvement	Insufficient
Sunrise Observation: Provide written observations and colored			
illustrations.			
Kilo Log: Thoroughly completed weather log. Included detailed			
observations & forecasts. Documented sun & moon data.			
Calculated tides.			
Sailing Log:			
Sail Log included details about sail and experience.			
Journal: Provides thoughtful and thorough reflection of the day's			
experiences. Practices using high school appropriate writing			
techniques, format, and grammar.			
Daily Self Assessment:			
Honestly and thoroughly completed Daily Self Assessment and			
provided examples.			

Friday 5/20/2011

Task	Meets Expectations	Needs improvement	Insufficient
Sunrise Observation: Provide written observations and colored			
illustrations.			
Kilo Log: Thoroughly completed weather log. Included detailed			
observations & forecasts. Documented sun & moon data.			
Calculated tides.			
Sailing Log:			
Sail Log included details about sail and experience.			
Journal: Provides thoughtful and thorough reflection of the day's			
experiences. Practices using high school appropriate writing			
techniques, format, and grammar.			
Daily Self Assessment:			
Honestly and thoroughly completed Daily Self Assessment and			
provided examples.			
Final Science Conclusions			

Star Compass







'O Hōkūle'a ka wahine, 'O Mau ke kāne
Noho pū lāua a loa'a mai 'o Makali'i, he keiki, he kikahi
Holo pū 'o Makali'i i ka moana nui ākea
a loa'a mai 'o Kānehūnāmoku, he keiki, he kiakahi
Kia aku ka maka i ka 'alihilani a 'ōili mai ka moku la
'O Kualoa ka āina, 'O Kānehoalani ka pali nāna e hi'i
Me ka 'ike o kō mua e kau mai nei
E mau mai ka 'ike a mau loa e

Born is the grandchild of Hokule'a and Mau,
The powerful child of Makali'i
To the eyes of the voyagers on the sea
Kānehūnāmoku appears as the sun rises
She dwells at Kualoa
Protected by those around her as she voyages
May we be granted with the skills of those before us.

Written by: Namahana Baldwin & Kāna'i Chock -Hālau Kū Māna Class of 2004



Notes