

Our Project In Hawaii's Intertidal (OPIHI) - PRE Name _____

Directions: This is a survey about the ocean and how scientists study it. Answer each question as best as you can. You will not be graded on your answers. There may be more than one possible answer. **Select the single best answer by circling a letter.** If you do not know the answer to a question, make your best guess. Be sure to read the whole question and *all* the possible answers.

1. The best *sampling* design for estimating biodiversity in an intertidal area is to examine:
 - a. the areas with the most organisms
 - c. a representative portion of the area
 - d. all of the organisms in the area

2. An individual sample taken during a study of the environment:
 - a. should be analyzed in the same way as every other sample.
 - b. should have the same results as all other samples.
 - c. can give you a complete description of the environment.

3. When sampling water, each sample might not be representative of the area you are looking at. For this reason, you should take several different water samples within your area and then:
 - a. mix them together before testing.
 - b. calculate an average after testing each sample.
 - c. go back for new samples if you do not get the results you expect.

4. Leilani is going to very carefully examine and describe an area. She is going to be doing a scientific _____.
 - a. survey
 - b. experiment
 - d. evaluation

5. The transect point-intercept method would be the best way to study an area:
 - a. that is complex, like a coral reef.
 - b. with organisms that move a lot, like in the open ocean.
 - c. that is large and uniform, like a sandy beach.

6. Which of the following methods would you use to describe an area with a lot of small, well-hidden organisms?
 - a. transect point-intercept
 - b. quadrat point-intercept
 - c. quadrat percent-cover

7. The _____ method involves counting whatever you find under a specific point along a line.
 - a. transect point-intercept
 - b. quadrat point-intercept
 - c. quadrat percent-cover

8. Tidepools with a lot of algae will have:
 - a. higher dissolved oxygen during the day.
 - b. lower salinity during the day.
 - c. higher temperature at night.

9. Which of the following has the *least* effect on dissolved oxygen concentrations in the water?
- Time of day
 - Predation rate
 - Wave size
10. The average distance between the water at high and low tide in Hawai'i is about:
- 5 meters.
 - 3 meters.
 - 1 meter.

Directions: For each question, **fill in the circle** on the scale that matches your answer.

11. How much do you agree or disagree with these statements?

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
I like to learn about the intertidal environment.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I search for information about the intertidal.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I want to explore the intertidal environment.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I care about the intertidal environment.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

12. How much do you think you know about...

	Much less than most	Less than most	Average	More than most	Much more than most
The intertidal environment in Hawai'i?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How the watershed affects the intertidal environment?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How to measure water quality (e.g., salinity)?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Things that affect water quality?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The importance of the intertidal ecosystem?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How to sample organisms in the environment?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How to identify intertidal invertebrate animals?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How to identify intertidal algae (limu)?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

13. How well do you think you can...

	Very much below average	Below average	Average	Above average	Very much above average
Come up with science questions that you could answer by collecting data?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Make predictions or hypotheses?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Collect data or use data collected by someone else?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Analyze data and figure out what it means?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Make conclusions about what you found out?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Present to others what you found out about your science question?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>