Fisheries Group you are evaluating ________________________________

Fisheries Presentation Evaluation

1. Did the presenter’s list the problems in the fishery? What were the problems?

2. Did the presenter’s list the solutions? What were the solutions?

3. What is one pro (positive) the group gave for the solution?

4. What is one con (negative) the group gave for the solution?

5. What are some interesting facts or cool things that you learned in the presentation?
Name________________
Card Numbers__________
Fishery _______________

**Fishery Card Worksheet**

This worksheet will help you to summarize the information on your fishery information cards. You should be able to find all of the information asked for on your card. If you cannot then skip that question but you should find out later. If you find a fact that you think is cool then write it down. You will be sharing this information with the rest of your group so don’t let them down!

I. **Marine Scientist Role** (What’s known about it and What’s for dinner)

A. Describe the animal that your fishery catches

1. Name (common, scientific, and Hawaiian)
2. Size
3. Body shape
4. Eyes
5. Fins
6. Reproduction (slow or fast)
7. Any thing else?

B. Habitat- Where does your fish live?

1. Depth
2. Alone or together
3. Anything else it needs in its habitat

C. Position in Food Web

1. What does it prey on (eat)?
2. What are its predators?

**THINGS TO INCLUDE ON POSTER**

- Map showing habitat
- Example of food chain
- Picture of fish
Name __________________
Card Numbers__________
Fishery _______________

**Fishery Card Worksheet**

This worksheet will help you to summarize the information on your fishery information cards.
You should be able to find all of the information asked for on your card. If you cannot then skip
that question but you should find out later. If you find a fact that you think is cool then write it
down. You will be sharing this information with the rest of your group so don’t let them down!

II. **Fisher Role** (Where in the world and How are they caught?)

A. Where is it caught?

   1. The region/place in the world
   2. Temp, salinity, time of day, seasons

B. Who catches them?

   1. Who catches the most in the world?
   2. Who catches the most in Hawaii?
   3. How much is caught?

C. Catching Methods (how are they caught?)

   1. Jig, hook, net, longline, handline, or a combination
   2. Is anything else caught along with the main fish/animal (bycatch)?

**THINGS TO INCLUDE ON POSTER**

- Map showing where it is caught
- Graphs showing how much is caught
- Picture showing example of how it is caught
Fishery Card Worksheet

This worksheet will help you to summarize the information on your fishery information cards. You should be able to find all of the information asked for on your card. If you cannot then skip that question but you should find out later. If you find a fact that you think is cool then write it down. You will be sharing this information with the rest of your group so don’t let them down!

III. Fishery Manager Role (What’s happening with the fishery and What’s the big deal?)

A. What’s happening with the fishery?

1. What is the major problem with the fishery (bycatch, pollution, less fish)?
2. Is there something being done to stop the problem (management)? What?

B. Why does it matter to us?

1. Who eats it all?
2. Are fish numbers decreasing?
3. How else does this fishery effect the environment?

C. What solution can you come up with?

1. Think of your own solution to solve the problems with this fishery.

** THINGS TO INCLUDE ON THE POSTER**

- graph showing population increase or other effects on the environment
- picture showing problem
- illustration showing you possible solution
Big 6 Research Skills  (example topic: squid)

Step 1:  Task Definition
Students brainstorm a topic that they would like to study. For my class, I suggested they choose a marine animal that is fished since we will study that in 3Q Science.
   1.  What you need/want to know (size, color, smell, prey, weight, types)
   2.  5 Ws: Who, what, when, where, why about the squid
       Who is interested in squid? scientists, fishers
       What is a squid? sea animal
       When can a squid be seen? Day/night, certain seasons or months
       Where can a squid be found? Certain depths, where prey is
       Why do I want to know about squid?
   3.  Make up questions that you’d like to find the answers to.
       How long do they live?
       Do they swim alone or in schools?
       Do they follow certain currents?
       What temperature water do they like the best?

Step 2:  Information Seeking Strategies
Students shared what resources they would try using to find information on their animal.
   1.  Decide what resources to use.
       Book of Questions and Answers, Internet, ask.com, encyclopedia, Google, person/scientist
   End of 20-30 minute lesson.

Step 3:  Location and Access
   1.  Locate and gather resources
       Students assigned finding one source that leads to finding the information listed in Step 1.

       2.  Be able to locate the information needed in a resource.
           We will follow up in Computer Lab and/or Library with how to
           a.  Do kid-friendly search engine subject searches
           b.  Use a table of contents and index in a nonfiction book.
           c.  Model how to use guide words and entry words in an encyclopedia.
Step 4: Use of Information
1. Divide questions up among the class. Write one question on an index card.
2. Read information from sources from those whose reading levels are lower.
3. Take notes from the source. Practice writing key words, not entire pages. Focus on answering only the question on the index card.
4. Remember to cite the sources on back of index card (website, book, author).

Step 5: Synthesis: create a product or display board to communicate what you found.
1. Share your information from your index card with the class.
2. Decide, as a class, how you would like to put the information together. Put it together as a class and decide what would look good (report, poster, brochure, diorama, etc)
3. Check to see that detailed information is included in the presentation.
4. Create a bibliography.

Step 6: Evaluation of process and product.
1. Complete Rubric Attached

Big6 Research Rubric

<table>
<thead>
<tr>
<th>Big6 Step 1: Task Definition</th>
<th>Attempted</th>
<th>Acceptable</th>
<th>Admirable</th>
<th>Awesome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Our topic was not defined. We generated very few questions.</td>
<td>Our topic was defined. We generated some questions relevant to the topic.</td>
<td>Our topic was clearly defined. We generated several questions relevant</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Big6 Step 2: Information Seeking Strategies</td>
<td>We brainstormed very few possible sources and selected inappropriate, or only one type of source.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----------------------------------------</td>
<td>-------------------------------------------------------------------------------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Big6 Step 3: Location &amp; Access</td>
<td>We located a few questionable print or electronic sources with</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Big6 Step 4: Use of Information</td>
<td>We used a few print and electronic sources and a fairly organized note taking method to complete a few questions. We did not cite sources.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Big6 Step 5: Synthesis</td>
<td>We created a product that contains unorganized content and demonstrates little knowledge and understanding of the topic. Our bibliography is</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Big6 Step 6: Evaluation</td>
<td>We did not evaluate all steps of the research process or the product. We did not reflect on individual or group.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Big6 Step 1: Task Definition</td>
<td>Attempted</td>
<td>Acceptable</td>
<td>Admirable</td>
<td>Awesome</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>-----------</td>
<td>------------</td>
<td>-----------</td>
<td>---------</td>
</tr>
<tr>
<td>Our topic was not defined. We generated very few questions.</td>
<td>Our topic was defined. We generated some questions relevant to the topic.</td>
<td>Our topic was clearly defined. We generated several questions relevant to the topic.</td>
<td>Our topic was clearly defined. We generated many questions, issues and problems relevant to the topic.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Big6 Step 2: Information Seeking Strategies</th>
<th>Attempted</th>
<th>Acceptable</th>
<th>Admirable</th>
<th>Awesome</th>
</tr>
</thead>
<tbody>
<tr>
<td>We brainstormed very few possible sources and selected inappropriate, or only one type.</td>
<td>We brainstormed some possible sources and selected more than one print and electronic source.</td>
<td>We brainstormed several possible sources and selected some appropriate print and electronic sources.</td>
<td>We brainstormed an abundance of possible sources and selected several appropriate, quality print and electronic sources.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Big6 Step 3: Location &amp; Access</th>
<th>Attempted</th>
<th>Acceptable</th>
<th>Admirable</th>
<th>Awesome</th>
</tr>
</thead>
<tbody>
<tr>
<td>We located a few questionable print or electronic sources with information.</td>
<td>We located a few print and electronic sources containing current, accurate and relevant information.</td>
<td>We located adequate print and electronic sources containing current, accurate and relevant information.</td>
<td>We located several print and electronic sources containing current, accurate and relevant information.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Big6 Step 4: Use of Information</th>
<th>Attempted</th>
<th>Acceptable</th>
<th>Admirable</th>
<th>Awesome</th>
</tr>
</thead>
<tbody>
<tr>
<td>We used a few print and electronic sources and no organized note taking method to complete a few questions. We did not cite sources.</td>
<td>We used a few print and electronic sources and a fairly organized note taking method to complete all questions. We cited most sources correctly.</td>
<td>We used an adequate amount of print and electronic sources and an organized note taking method to complete most questions. We cited all sources correctly.</td>
<td>We used multiple print and electronic sources and an organized note taking method to complete all questions. We cited all sources correctly.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Big6 Step 5: Synthesis</th>
<th>Attempted</th>
<th>Acceptable</th>
<th>Admirable</th>
<th>Awesome</th>
</tr>
</thead>
<tbody>
<tr>
<td>We created a product that contains unorganized content and demonstrates little knowledge and understanding of the topic. Our bibliography is incomplete or has several errors.</td>
<td>We created an original product that contains somewhat organized, relevant, content and demonstrates fair knowledge and understanding of the topic. Our bibliography has several errors.</td>
<td>We created an original product that contains organized, relevant, detailed and accurate content and demonstrates knowledge and understanding of the topic. Our bibliography has few errors.</td>
<td>We created an original product that contains well organized, relevant, detailed and accurate content. It demonstrates our thorough knowledge and understanding of the topic. Our bibliography with no errors.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Big6 Step 6: Evaluation</th>
<th>Attempted</th>
<th>Acceptable</th>
<th>Admirable</th>
<th>Awesome</th>
</tr>
</thead>
<tbody>
<tr>
<td>We did not evaluate all steps of the research process or the product. We did not reflect on individual or group strengths and weaknesses.</td>
<td>We evaluated all steps of the research process and product. We reflected on individual strengths and weaknesses.</td>
<td>We evaluated all steps of the research process and product. We reflected on individual and group strengths and weaknesses.</td>
<td>We evaluated all steps of the research process and product. We reflected on individual and group strengths and weaknesses. We discussed it.</td>
<td></td>
</tr>
</tbody>
</table>
Fishery Card Worksheet

This worksheet will help you to summarize the information on your fishery information cards. You should be able to find all of the information asked for on your card. If you cannot then skip that question but you should find out later. If you find a fact that you think is cool then write it down. You will be sharing this information with the rest of your group so don’t let them down!

Use the back of the worksheet if you run out of room on the front.

I. Marine Scientist Role (What’s known about it and What’s for dinner)
   A. Describe the animal that your fishery catches
      1. Name
      2. size
      3. body
      4. eyes
      5. fins
      6. reproduction (slow or fast)
      Any other things
   B. Habitat- Where does your fish live?
      1. Depth
      2. Alone or together
      3. Anything else it needs in its habitat
   C. Position in Food Web
      1. what does it prey on
      2. what are its predators

II. Fisher Role (Where in the world and How are they caught)
   A. Where is it caught-
      1. The Region
      2. temp, salinity, time of day, seasons
   B. Who catches them
      1. Who catches the most in the world
      2. Who catches the most in Hawaii
      3. How much is caught
   C. Catching Methods (how are they caught
      1. jig, hook, net, longline, handline, or a combination
      2. Is anything else caught along with the main fish/animal

III. Fishery Manager Role (What’s Happening with the Fishery and What’s the big deal)
   A. What’s happening with the fishery?
      1. What is the major problem with the fishery (bycatch, pollution, less fish)
      2. What is being done to stop the problem (management??)
   B. Why does it matter to us?
      1. Who eats it all
      2. Are fish numbers decreasing
      3. What other effects to the environment are there
Fisheries Project Outline

This outline will help you to design your final poster presentation. Your poster should have an all of the following information. The more original thoughts you have in your poster the better grade you will receive. DO NOT put direct print-outs of websites or website information if you do not correctly cite it or understand it. The fishery information cards, webquest’s links, and your instructor should help you to outline all of the following information. The first three sections should be done already!

I. Information about your fish
   a. What is your fishery/fish?
   b. What does your animal look like and why?
   c. What does the main animal in your fishery eat and what eats it?
   d. Where does your animal live?

II. Information about your fishery
   a. Where does your fishery fish?
   b. How much fish does your fishery catch?
   c. Who is catching all that fish?
   d. How is the fish caught?

III. What are the trends and problems with the fishery
   a. Is your fishery catching less fish now than in the past?
   b. Who manages the fishery?
   c. What is the major problem with the fishery? (habitat destruction, no fish, etc.)
   d. Why is this the main problem (fishermen, bad management, people keep eating, bad fishing technique, what is it?)?

IV. Propose a solution to the main problem with your fishery and write down the pros and cons of solution.
   a. What is your solution and why did you choose it?
   b. How does your solution specifically help the problem?
   c. How does the solution affect fishermen, marine scientists, and the consumers (people that eat the food)?
   d. Are there any other negative consequences from your solution?

V. How would you know if your solution was working??
   a. How do you observe your solution at work? (direct observation, collect data from the fishermen, tagging, etc)
   b. Why did you choose this type of observation?
   c. If you could only look at numbers of fish to see if your solution was working what would you expect them to do? (go up, go down, go down for a little while and then up, do nothing, etc.)
Fisheries Research Project
Computer Lab Instructions

TASK: The students were tasked with researching a fishery. Students were broken up into 5 different fishery groups; Squid, Whales, Bottomfish, Tuna, and Swordfish. Within each group the students were assigned roles.

**Marine scientists** are responsible for knowing; What do we know about the fish? What does it eat? What eats it?

**Fishers** are responsible for knowing; What is the fish's habitat? How do we catch it?

**Fishery managers or conservationists** are responsible for knowing; What's happening with the fishery and why does it matter to us? Is there any overfishing, bycatch, or habitat destruction linked to the fishery? What are the impacts on marine life?

Students were given some information cards along with a research outline that helped them to answer some of these questions. *For the first computer lab they should focusing on answering all the outline questions in some form and in researching a problem with their fishery.* For a complete description of the assignment see the webquest links below. Within the webquest (on the student page under process) there are several web links that are helpful in researching the assigned topics.


*For the second computer lab they should focus on finding sources that detail the issue or problem with a fishery and researching possible solutions. Students should also think about how they will know their solution is working. This may mean using scientific tools to study the amount of fish/organisms in the fishery.*

**NOTE:** Students are creating a poster of their findings but they are presenting their posters and should be able to explain their results. Students should be able to print pictures with a CITATION. Students should not be allowed to print text unless they have retyped the text from the internet into their own words!
Make Your Own Fishery Solutions

Imagine you are in charge of managing your fishery!

There are many different kinds of ways to help stop overfishing, habitat destruction, bycatch and some of the other issues caused by commercial fisheries. These *fishery solutions* should be focused on the ISSUE and the FISHERY. Review the following table for potential solutions to the problems you have with your fishery and pick the one that works best for your fishery. If you aren’t satisfied with *one* of the following solutions then use *several* or create your own!

<table>
<thead>
<tr>
<th>Problem</th>
<th>Solution</th>
<th>Pros</th>
<th>Cons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bycatch</td>
<td>Change the fishing gear to catch less bycatch. Example: Circle hooks</td>
<td>Allows fishermen to catch the same amount of fish</td>
<td>May be expensive. Requires a lot of testing.</td>
</tr>
<tr>
<td>Bycatch</td>
<td>Incidental Take Limit: If bycatch goes over a limit you stop fishing.</td>
<td>Makes absolutely sure you do not have too much bycatch</td>
<td>May hurt fishermen if they have to stop fishing.</td>
</tr>
<tr>
<td>Bycatch</td>
<td>Require the fishermen to use everything they catch.</td>
<td>Fishermen can catch as much as they want but they must use it.</td>
<td>Hard to enforce: There are not too many police for the whole open ocean.</td>
</tr>
<tr>
<td>Overfishing</td>
<td>Limit the number of fish that are caught</td>
<td>Makes sure fishermen are only taking a certain amount.</td>
<td>In order to set a limit you must know how many fish are in the sea: That’s hard!</td>
</tr>
<tr>
<td>Overfishing</td>
<td>Size limits: Only fish of a certain length or weight can be caught and sold.</td>
<td>Protect young fish so they grow and protect old fish because they make a lot of eggs</td>
<td>What happens if a fishery catches undersized fish? They may still die and be dumped back into ocean</td>
</tr>
<tr>
<td>Overfishing</td>
<td>Allow fishing during certain times of year or certain areas.</td>
<td>May protect fish when they are spawning or areas that are very important to the fish.</td>
<td>Sometimes it may be hard to protect fish in open ocean areas: they are far from shore and fish move!</td>
</tr>
<tr>
<td>Endangered Species are caught</td>
<td>Incidental Take Limit: If you catch more that a given amount you stop!</td>
<td>Ensures protection of that species.</td>
<td>May hurt fishermen and encourages them to not talk about any caught animals.</td>
</tr>
<tr>
<td>Endangered Species are caught</td>
<td>Stop commercial fishing. Allow some to be caught for food or research.</td>
<td>Helps to stop the majority of fishing for that species and still allow some fishing.</td>
<td>People may take advantage of the chance to catch fish for science or subsistence.</td>
</tr>
<tr>
<td>Habitat Destruction or Change</td>
<td>Change the gear to stop destroying or changing habitat.</td>
<td>This will often help the fishery in the long run by preserving habitat.</td>
<td>Fishing may not be as easy and fish will cost much more.</td>
</tr>
<tr>
<td>No rules or Knowledge of fishery</td>
<td>Conduct research to determine how many fish can be caught.</td>
<td>Need to know what the fishery is doing before we can make rules.</td>
<td>We don’t usually make rules until a fishery has taken too many fish!</td>
</tr>
<tr>
<td>Content</td>
<td>Well Below Proficiency U</td>
<td>Approaching Proficiency N</td>
<td>Meets Proficiency MP</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>--------------------------</td>
<td>---------------------------</td>
<td>----------------------</td>
</tr>
<tr>
<td><strong>1. Essential Problem</strong></td>
<td>The problem is neither related to fisheries nor based in Hawaiian or Pacific waters.</td>
<td>Problem is either not about fisheries or not based in Hawaiian or Pacific waters.</td>
<td>Problem about a fishery in Hawaiian or Pacific waters is stated.</td>
</tr>
<tr>
<td><strong>2. Find sources that give background information on the fishery and issue.</strong></td>
<td>Student finds and cites &lt;5 sources directly related to the problem.</td>
<td>Student finds and cites 5-7 sources directly related to the problem.</td>
<td>Student finds and cites 8-10 sources directly related to the problem.</td>
</tr>
<tr>
<td><strong>3. Propose and research potential solutions.</strong></td>
<td>Student offers no solutions or supporting research.</td>
<td>Student offers 1 solution with supporting research.</td>
<td>Student offers 2 solutions with supporting research.</td>
</tr>
<tr>
<td><strong>4. Consider pros and cons of implementing the potential solutions (to fish, fishery, and ocean).</strong></td>
<td>Student lists no pros/cons of the potential solutions to fish, fishery, and ocean.</td>
<td>Student lists 1-2 pros/cons of the potential solutions to fish, fishery, and ocean.</td>
<td>Student lists 3 pros/cons of the potential solutions to fish, fishery, and ocean.</td>
</tr>
<tr>
<td><strong>5. Group Work</strong></td>
<td>Student receives positive feedback from &lt;50% of group members.</td>
<td>Student receives positive feedback from 50% of group members.</td>
<td>Student receives positive feedback from most group members.</td>
</tr>
<tr>
<td><strong>6. How to implement your solution and measure its effectiveness.</strong></td>
<td>Student neither details the steps involved to try the solution nor to measure its success.</td>
<td>Student details the steps involved to try the solution or how to measure its success.</td>
<td>Student details the steps involved to try the solution and measure its success.</td>
</tr>
</tbody>
</table>

Open Ocean Final Project
Sample Roles
Lawrence Hall of Science

Fisherman
I’ve spent my life fishing in Hawaiian waters and can’t imagine doing anything else. I fish for food and to make money to pay for my family’s house and food. I’m proud of what I do. My dad and grandfather were fishermen too. A lot’s changed since they were fishing, including the fact that there are now many women fishing. The major change is that there are less fish and more rules! I know that there are less fish because of pollution and foreign fishing vessels as well as my dad and grandfather’s fishing practices, but why should I stop when the foreign fishing vessels will steal all the fish anyway. I might be willing to change the way I fish if it meant more fish in the future. I don’t know what else I’d do if I couldn’t go fishing. Don’t I have a right to support my family and make an honest living?

Marine Scientist
I’ve spent my life studying plants and animals that live in the ocean around Hawaii. I am fascinated by those animals and plants because there is so much that we don’t know about them, especially the ones that live in the open ocean. Those plants and animals often live far from land, travel great distances, and live in very deep water. During my time as a marine scientist I’ve seen many fish species decline for many reasons. I’ve studied the impacts of pollution, overfishing, and global warming and made many recommendations to the State and Federal government and to the fishermen themselves to try and help those animals. However, I can’t make anybody stop fishing besides; I like to eat fish too! I’d like to keep studying the animals and plants that I love but some of them are getting harder and harder to find.

Fishery Manager
I’m in charge of managing fisheries in Hawaii. This means that I want fishermen to keep on fishing but I don’t want the fish to disappear. There are many ways of doing this but most of them involve making rules to make the fishermen catch less adult fish and less young fish (this is particularly important). Many fishery managers are also starting to not only regulate the amount of fish caught but the amount of pollution, the amount of other species caught, and the amount of people fishing. All these rules are sometimes very hard to keep in order and to make sure everyone obeys the rules. Oftentimes on the open ocean we can tell fishermen from Hawaii “no catching sharks” but then fishers from another country come and catch all the sharks. Then the fishermen from Hawaii get mad. Managing these fisheries is very hard, especially because everyone likes to eat fish!
Science Letter Update

Date:

Dear Parents:

Your child has been studying the open ocean this year in science. We began by introducing both living and non-living factors that shape the ocean. Next, we studied habitats, foodwebs, and adaptations that marine animals and plants have made so that they thrive in their respective habitats.

Over the next three weeks we will be studying fisheries in Hawaii and the greater Pacific ocean. Students will be assigned a research project that will be completed in class, in the computer lab, in the library, and at home. This year there is a webpage that allows students to access and work on their project at home.

This webpage is called a webquest and was designed by Robert Lozano, the 5th grade teacher at Waikoloa elementary school. The webquest allows the students to work on their science class project from any computer with internet access. Students are able to access relevant links to websites. Please help your student to access the webquest and navigate through the assigned tasks. You may learn something new! The webquest link is outlined at the bottom of this letter.

If you have any questions, feel free to call or write at ________

Teacher
At teachers r us

Try the first link and if it doesn’t work use the second one.

http://questgarden.com/45/79/3/070129002849 or

http://205.234.97.72/45/79/3/070129002849/
Teacher Guidelines for
WHERE ARE WE computer lesson

Background: There are many incidents of ocean animals faring far outside their natural habitat and ending up in unlikely places. Penguins have been stranded in the tropics while swordfish have ended up in the Arctic Ocean. We see killer Orca whales in Hawaii every so often. What are these animals doing in those places? Oftentimes these animals follow natural regular currents that may lead them off course due to a strange weather event like a storm or El Nino. Animals may be searching for new foraging grounds to find more food. Or the animal may be simply lost. The way that many animals navigate long distances through the water is mystery for many species and sometimes finding animals outside of their habitats gives important insight into how they do navigate.

Preparation: 1. Print one copy of the WHERE ARE WE student worksheet for each student.
   2. Advise the computer teacher that the students will be conducting internet research and must express their thoughts in their own words on their worksheet. They also must cite the website on their worksheet in the appropriate place.
   3. You may wish to give a prize as incentive for the student that finds the animal found farthest away from home.
   4. You may also want to find and print out a few stories for students that do not have any luck finding a story on the internet.

Procedure: 1. You may wish to read the preceding background information to the students.
   2. Pass out worksheets and explain objectives.
   3. Internet research using appropriate search engines. Key words or phrases might include (ocean animals found in strange places, sealife caught in strange places, or the best one is to pick a creature like “squid”, “swordfish”, “penguin” or whatever and plug that into _____ caught in strange place.))
   4. Depending on how long the students take to complete this exercise. The students may want to share what they found with the rest of the class although this can be done at a later time.
Where Are We??

Your Mission: Use the internet to find a story about an ocean animal that was seen far from the place it normally lives (like a polar bear walking up on the beach in Waikiki). Once you have found a good story then answer the questions below in your own handwriting. Make sure you write down the website address in the space provided.

Website_____________________________________________

What is your animal??___________________________________________

Where does your animal usually live??____________________________

Where was your animal found??________________________________

How far did your animal travel?_________________________________

Why did your animal travel from its usual home?____________________

What did you learn from this activity?____________________________

Tell us any cool parts about the story!_____________________________

Lesson 8: Open Ocean Final Project