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Our Animal ambassadors, Frida and Pingo, are going to help you learn all about sustainable fishing, and bycatch!

## Fishing for the Future

Sustainable fishing helps ensure there will be populations of ocean and freshwater wildlife for the future. Demand for seafood and advances in technology have led to fishing practices that are depleting populations around the world. Fishers remove more than 170 billion pounds of wildlife from the sea each year. Scientists fear that continuing to fish at this rate may soon result in a collapse of the world's fisheries.

Record your group's catch and the amount of fish left in the ocean after each season

Season	Catch	Fish Left in the Ocean
1		
2		

Briefly describe the health of your fishery					
					_

Season	Catch	Fish Left in the Ocean
3		
4		

Briefly descri			
	 		 <del> </del>

# Fish Frenzy

Unscramble the words to reveal sustainable fishing facts!

	<b>3</b>
1.	
	guarantees there will be populations of ocean and freshwater wildlife for the future.  a. tabussnelia ghfisin
2.	Taking wildlife from the sea faster than populations can reproduce is known as
	a. rgosinvifhe
3.	Fishing for specific species during certain times of the year allows fish stocks to themselves.  a. nipreelsh
4.	Rod-and-reel fishing results in less because non-targeted species can be released immediately.  a. ychbact
5.	Many individuals, communities, and nations continue to rely on fish and other aquatic life as a
	a. oofd cesuro
	6. One of the best things we can do to help is ourselves about



- 6. One of the best things we can do to help is \_\_\_\_\_ ourselves about where our fish comes from and how it is caught.
  - a. cteduae

## **Bycatch Experiment**

Bycatch is the accidental capture of non-targeted species such as dolphins, sea turtles and sharks. Thousands of miles of nets and lines are set in the world's oceans each day. Modern fishing gear is very efficient at catching the desired fish species as well as anything else in its path.

Perform the bycatch experiment, write down your results, and answer the following questions:

1.	Which "fishing net" did you choose?
2.	Which "fish" species are you targeting?

3. Fill in the following table as you complete the experiment

Trial	Number of targeted fish caught	Number of bycatch animals caught	Total number of animals caught
1			
2			
3			

4.	<ol> <li>Create a bar graph below showing the difference between targeted fish caught and bycatch animals caught</li> </ol>			

5.	Out of the three trials, how many times did you only catch your targeted species?	
6.	Did you have more bycatch or more targeted species in your trials?	
7.	Knowing what you know now, would you choose a different "fishing net"? If so, which one?	
8.	Name one way we can fish sustainably	
9. Try to come up with a net design that will reduce by		





### **Animal Observations**

Choose one animal at Marineland on which to do a physical and behavioral observation. You may pick any animal you'd like, but you must stick with that individual, so be sure you've identified a distinguishing characteristic about it that will help you keep it in view, even if it lives with a group of other animals that look just like it.

<u>Animal:</u>	
	Draw your animal here:

List 5 physical characteristics/adaptations (body shape, coloration, number of limbs, etc):

What do these adaptations help the animal do? (Avoid predators, catch prey, camouflage, etc)



Observe your animal's behavior for three minutes. Fill out the following behavioral observation chart. Put a tally mark next to the behavior every time you see it. If you see any behaviors other than the ones listed, please add them in the blank space provided:

Animai:					
Behaviors Seen	Minute 1	Minute 2	Minute 3	Total Tallies	
Eating					
Chasing					
Hiding					
Playing					
Breathing					
Sleeping					

What behavior did you see your animal do the most?

What kind of conclusions can you make from your observations? (Keep in mind that your three-minute observation does not represent a full day of the animal's life.)