



# THE BEST FISHERMAN

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## I. Objectives

- a. Students will learn the definition of the word conservation.
- b. Students will learn the definition and examples of natural resources, renewable resources and non-renewable resources.
- c. Students will develop an understanding of resource management and our role in conservation.

## II. Materials

- a. Lakes (Paper cut outs)
- b. Fishing baskets (paper cups)
- c. Fish (20 pinto beans per 2 students plus 300 or so surplus)
- d. Tally Sheet to keep track of fish caught and totals

## III. Introduction

- a. Introduce the activity.

Although we are not actually going to leave the classroom, today we are going to go fishing! We're going to head down to the lake and go on three different fishing trips.

## IV. Procedure

- a. Explain the activity guidelines.

Our goal today is to catch as many fish as we can to become the best fisherman.

We are going to work in pairs, so partner with a student beside you.

- b. Pass out a lake and a fishing basket to each team.

First, I'll pass out a lake and a fishing basket to every team.

We also need a fishing pole right? Everyone raise your right hand. That's your fishing pole! Taking turns with your partner, you can use these two fingers (index and thumb) to catch fish one at a time and place them in the basket.

- c. Pass out 20 fish to each team.

And here are your fish! Each team will start with 20 fish in the lake. We will go on three fishing trips. Each trip will only last 10 seconds. After each trip we will count how many fish each team caught and how many fish are left in the lake.

- d. Explain how the fish will be re-stocked in the lake.

Now here's the important part. Between each fishing trip, nature will restock the lake. For every fish that you have left in the lake, nature will add another fish—basically we will double the fish you have left in your lake after each trip. (For example, if you catch 12 fish on your first trip, then how many fish do you have left in the lake? 8. So, we will add 8 more fish.)

- e. Explain how we will record results.

After each fishing trip, we will count all the fish each team caught and record the number on the board. After the third fishing trip we will decide together which team was the best fishermen and why.

- f. Summarize.  
Let's make sure everyone understands.  
We will go on three fishing trips.  
Each time we'll have just 10 seconds to fish.  
Between fishing trips, nature will double the amount of fish you have left in your lake.  
When I say "Go fish!" we'll start; when I say "Time's up!" the fishing trip is done.  
You and your partner will quickly take turns, catching as many fish as needed to make your team the best fishermen.
- V. Activity—The Best Fisherman
- Give the signal to begin fishing trip #1.  
Are all the teams ready? "Go Fish!" After 10 seconds, signal for the teams to stop. "Time's up!"
  - Have the students record results on the board using a graph. (Label teams #1, #2 and so on. Label "Fish caught: trip 1, 2, and 3.")
  - Restock the lakes.
  - Repeat for the 2nd and 3rd fishing trip.
  - Have the students calculate total number of fish caught for each team.
- VI. Content
- Study and discuss the final graph.  
Which team had the best fishermen?  
What did the winning team do correctly? The winning team always left some fish in the lake. When we doubled the amount of fish left in the lake between the fishing trips, the winning team had a higher total of fish to catch each time.  
Why did we double the amount of fish in the lake between the fishing trips? (Reproduction)  
What did the teams who caught less fish do incorrectly?  
(They caught too many fish too quickly, not allowing time for reproduction. They depleted their resources.)
  - Discuss the word resource.  
Have you ever heard of the word resource? A resource is a word that means "something we use." Some things we use at school are pencils, computers, desks, lights... These are all resources. Resources that come from nature are called natural resources. Some examples of natural resources are fish, trees, oil, the sun, and water.  
Natural resources are all the things that we use from the earth to meet our needs.
  - Ask further questions.  
Imagine that there are other people who live around this lake who depend on these fish as a resource for food. How might their lives change as a result of our fishing? (As population increases, resources such as fish need to be carefully managed. If we fished like team # \_\_ (the losing team,) many people would quickly run out of food and everyone would suffer.)  
Are there other natural resources that we need to use carefully?  
(Yes. Oil, coal, gas, and trees are some examples. These resources cannot easily be replaced if we use them too quickly.)  
What happens if we use those natural resources carelessly?  
(We could run out of a resource. Without oil or coal, for example, our lifestyle would have to change. We would have to find a new way to have energy for our homes and schools and cars.)

d. Introduce the word “conservation.”

Let’s think back to the winning team again. Remember what they did correctly? (The winning team always left some fish in the lake.) We could say that the winning team “conserved” fish. That means they used less fish each time, so that they would have more fish left in the lake to reproduce.

When we use less of a resource (like fish) so that we will have that resource for years to come, we call that “Conservation.”

Conservation is the careful management of the earth’s resources.

We need to practice conservation with all of our natural resources especially resources like fish, trees, oil and even water!

e. Discuss our role in conservation.

Who’s job is it to conserve these resources? (Yours and mine!)

When we leave water running while we brush our teeth, or drive everywhere when we could easily take a bike or walk, when we don’t recycle paper, we are part of the problem.

What are other ways we can practice conservation? (Take shorter showers, turn off lights, recycle, buy products with less packaging, use reusable items rather than disposable)

## VII. Conclusion

a. Summarize.

We’ve learned about natural resources and our need to practice conservation. Through our activity, we saw that fishing quickly without allowing nature to balance the number of fish in the lake, was dangerous and actually left us with less fish in the end, and for some teams no fish at all. We learned that unless we use resources from the earth carefully, we will not have that resource in the future.

## VIII. Extension Ideas

a. Math:

Based on the activity, what number of fish could we catch on each fishing trip to come up with the greatest total of fish after three fishing trips?

Trip #1 = 10 fish, Trip #2 = 10 fish, Trip #3 = 18 fish (leaving 2 to reproduce) The total is 38 fish.

b. Science:

Find out more about some of the earth’s natural resources.

Choose one and explore why this resource is limited and in need of conservation.

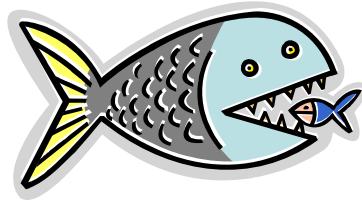
c. Writing: Write a story about a city that depletes a natural resource. How are their lives affected? What happens to the environment around them?

d. Art: Create a poster communicating the need to conserve a natural resource. Include facts about our usage of that resource and ways we can conserve it.

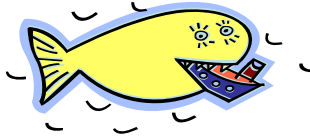
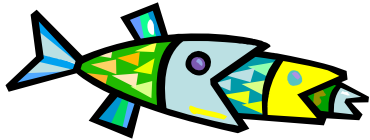


# How many fish did you catch?

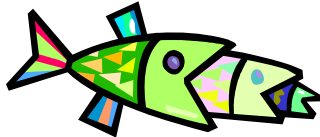
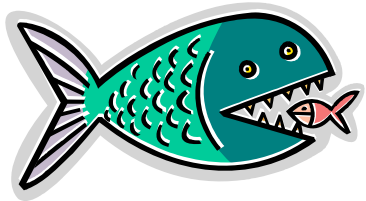
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1st Trip \_\_\_\_\_



2nd Trip \_\_\_\_\_



3rd Trip \_\_\_\_\_

Total # of fish caught \_\_\_\_\_