Santa Clara County Office of Education

Salmon You Can Count On

Common Core State Standard: Ratios and Proportional Relationships 6.1- *Understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities.*

Materials used for this game: Salmon You Can Count On available through RAFT at www.raftstore.net

= salmon   = where the fish live (the river)

About how many fish (salmon) are in this set?   DON'T COUNT! We can get a sample to find out (estimate) how many fish (salmon) there are. Let's make a sample!

Directions:

1. Each person has a container
2. Put **two (2)** GREEN counters (TAGGED SALMON) in each person's container.
3. Put **eight(8)** ORANGE counters (UNTAGGED SALMON) in each person's container
4. When we count them altogether, we get **ten (10).**
5. **Look at the chart below to record our sample results and find out how many salmon are in the whole river!**

Population Data Sheet

Total number of salmon in sample	Total number of tagged salmon in sample	Ratio of all salmon in sample to tagged salmon	Estimated total number of salmon in river
n	*t*	*R = n/t*	*R x T =*
10	2	10/2 = 5	5 x 15 = 60 For this sample, we estimate there are a total of 60 salmon in all.

How close is our estimate to the actual number of salmon? Do more trials by following *the Idea Sheet!*

Congratulations! Understanding ratios will lead to an analysis of real-world and more complex mathematical problems!