**Go Fish**

**Follow up Assignment – Answer Key**

**Introduction – Recalling the Game**

1. – 2. Answers will vary.
2. What was your main goal at the beginning of the game?

*“Winning the game” by catching the most fish is a likely response, unless students remember to apply the concept of ecosystem limits. When taking this up, be sure to address the concept of what ‘winning’ represents in sustainability.*

**Step 1: First Peoples**

1. Why were aboriginal people fishing? (What would they do with the fish they caught?)

*Aboriginal people were primarily feeding themselves and their families. They may have been catching some extra for trade or for storing over the winter.*

**Step 2: Population Increase/ Colonization**

1. What happened to the fish populations when more aboriginal people were fishing?

*At the stage where Aboriginal people were only fishing for sustenance, fish populations should have been able to replenish themselves.*

1. What happened to the fish populations when the Europeans started fishing?

*At the stage where European people were only fishing for sustenance, fish populations should have been able to replenish themselves.*

1. Why were the European settlers fishing? (What would they do with the fish they caught?)

*European people were primarily feeding themselves, other colonists, and their families. They may have been catching some extra for storing over the winter.*

**Step 3: Economic Development**

1. Why did the Europeans’ fishing activities change?

*Europeans were no longer only feeding themselves and their families. Most of their catch would have been preserved and sent to Europe or other potential consumers.*

1. How did this affect the fish populations?

*Fish populations may be showing signs of decline if the Europeans were taking so many that the populations did not have time to recover fully.*

1. How could we decide when fishing regulations are needed?

*Answers will vary: declining numbers of fish caught or decreases in the average size of fish caught may be signs of population decline or a significant change in the population’s age class distribution.*

1. Fishing regulations may limit the size, number, or even the sex of the fish that can be caught. How do we decide exactly what fishing regulations we should have?

*Monitoring commercial fishing catch or scientists’ measurements of the number and size of fish caught over the time spent fishing is used to provide measurements of the health of the fish population. Details of each species’ life cycle provided details about the minimum size of fish that may be caught. Fish that are too small have not had a chance to breed and replace the population. Fish that are very big represent a huge opportunity to replace the population, so may not be allowed as harvest either.*

**Step 4: Need for Regulation**

1. – 15. Answers will vary

16. What skills do you need for successful collaboration for sustainable management of a resource?

*Listening, compromising, researching/ analyzing, being respectful, etc.*

1. Are these skills the same for successful teamwork in class? Why/ Why not?

*Most of the skills will be the same, just on a different scale. We are still trying to come up with a collaborative answer to a problem or task, so most should be the same.*

**Step 5: Modern Day**

1. How would the result of the game change if one territory found a way to catch twice as many fish in half the time?

*One territory would have a significant advantage over the others. The price of its fish may decrease, meaning that the other countries may lose customers.*

1. Is it fair that different countries have access to different technologies? Why/ Why not?

*Answers will vary: this may lead to the saying “If you give a man a fish, he will eat for a day. If you teach a man to fish, he will eat for a lifetime.” Canada’s role in overseas development can also be discussed.*

1. The sport fishing industry in Ontario is worth billions of dollars. Should sport fishers have an equal say in how the fishery is managed compared to Aboriginal peoples who are fishing to feed themselves or for other traditional reasons? How do commercial fishers whose livelihood depends on their catch fit into this situation?

*Answers will vary: This may lead to research on or discussion of relative pressure on the resource, relative income from these pressures, and other costs and benefits of these stakeholders’ pressure on the resource.*

**Overall Summary**

1. How and when did your goals or strategies change during the game?

*Answers will vary: when students noticed that the fish populations were declining they may have decided that someone needed to reduce fishing pressure, but the urge to get more fish (“win” the game) may have been too great to resist. An extension to this question can be “When should your goals and strategies have changed?”.*

1. What factors do we need to consider when maintaining a sustainable fishery?

*Answers will vary, but an accurate understanding of a particular fish species’ life history, habitat needs at all life stages, and accurate data regarding the population numbers and size class distribution are all important to revise fishing regulations to optimize harvest without risking collapse.*

1. – 25. Answers will vary.