

Fin Rummy

8 decks of fin rummy cards

8 laminated rules and directions sheets

1 Pacific salmon life cycle posters

1 life stages of the rainbow trout poster

1 salmon specimen display

20 salmon life cycle cards

1 Salmon Facts and Photos packet

1 Extra Information and Masters folder

Fin Rummy

Overview

Salmonids change their habitat requirements throughout their life cycle. In this activity, students use a card game format to be able to identify the 6 different life cycle stages of the salmonid, place them in proper sequence and identify the corresponding habitat that they occupy at each stage. The original game follows the general rules for gin rummy; this version has been simplified for easier play. It can also easily be modified and played as “Go Fish” or “Concentration”.

Content

In order to survive throughout the six stages in the life cycle of the salmonid, fish depend on different stream and ocean habitats. For the first stages of life, **eggs and alevin**, the habitat must provide protection from predators, oxygen for survival, and removal of pollutants and silt. This habitat is found in the *gravel* bottom of the stream bed. The gravel must be free from sediment so that the eggs and alevins can receive the required rich supply of oxygen and the waste products can be removed.

The margin of the stream provides the next stage habitat for the emerging **fry**. These slower moving, shallow, *backwater stream* edges with their overhanging banks and root wads, offer shelter, protection and a rich source of drifting food necessary for the fry to continue their growth in safety.

Fingerlings, because they are now strong enough and large enough to move into the current, take up residence primarily in the *riffle* areas of the stream. Food is more abundant and the fingerlings add aquatic macro invertebrates and terrestrial insects to their diet. As they get a bit bigger and faster, they also take up residence in the pools of streams and rivers where the depth provides protection from predators such as kingfishers and herons, but they are still at risk from larger fish.

After about a year in the stream and river, salmonids undergo a process called smoltification. This is the stage when imprinting on the river takes place and their bodies are ready to make the transition to salt water. As a result, **smolts** head downstream towards the *estuary* where their gills, swim bladders and kidneys undergo the changes necessary to survive in the ocean. In addition, their coloring changes from the brown spotted stream coloring to silvery gray, the color scheme, which will allow them to blend into the ocean habitat.

The salmonids reach maturity as **adults** in the *ocean* after 1 to 3 years. During their ocean migration they may travel great distances in schools following ocean currents. When salmonids are ready to **spawn**, they generally return to the *river* where they developed. Smell and magnetic fields imprinted during smoltification seem to be the main cues for finding their way back to their home watersheds.

As they return to fresh water, they usually cease to eat, relying instead on stored body fat from their ocean life. When they finally reach suitable spawning habitat on the upper reaches and tributaries of the watershed, the female will deposit the eggs deep in the gravel, the male will fertilize the eggs with milt and the cycle will begin again with a new generation.

Key Points

- A habitat is a place where an animal or plant lives to meet its needs for food, water, shelter, oxygen, and space.
- Cycles are changes that occur in a pattern which repeats itself. Some physical objects, plants and animals, change in some way when they are part of a cycle. Other physical objects may also change but not be part of any cycle.
- Cycles and change happen over time, some take place over short periods of time and others occur over an extremely long period of time.
- Salmonid fry are very vulnerable to flow rates, predators and pollutants and require very specific habitat for their survival.

Introduction

Use the posters and salmon specimens to introduce the life cycle to your students.

Playing the Game

Pass out the decks of cards and laminated rules and directions sheets to groups of 2 to 4 students. Explain the rules and instruct students to begin playing the game.

Game Play Options:

Fin Rummy simplified version – the laminated rules and directions sheets follow this set of rules. It is similar, but very simplified from the original version.

Fin Rummy original STEP version – a more complicated set of rules very similar to gin rummy.

Concentration – instead of playing fin rummy, you can have students lay cards out face down and try to match the fish stage to its habitat by playing memory/concentration.

Go Fish! – instead of playing fin rummy, use the same cards to play Go Fish.

Extension Activities

Use the Species Info sheets to learn about the differences between different species of salmon. For example, pass out a different sheet to each group and have them share interesting facts about the salmon with the class.

Share the information in the Salmon Facts and Photos packet using the document camera or by having students share the information.

Journal Reflection

Now that students have completed the game, have students use the salmon life cycle cards to write down what happens at each stage in the cycle. They can also take notes from the extension activities.