

Beth Garrison
3rd grade

“Home Stream Home”

Concept - a salmon’s habitat includes water, food, air, and shelter

AK Science Content Standards - A12, A14, A15, B1, D1, D3

Materials: drawing paper, crayons, clipboards, salmon survey worksheets, Venn diagram worksheet, thermometers, 25’ measuring tape, fine mesh nets, collecting jars, identification guide for aquatic insects, paper plates, paint, gravel, clay (or salt dough), salmon pattern, species posters.

Process Skills: communicating, observing, collecting and recording data, measuring, interpreting data, inferring, developing models

Vocabulary: habitat, temperature, debris, gravel, plankton, aquatic, silt, stream, salmon, survey, whirlpool, algae, width, depth, spawning, species

Learning Cycle Model

Gear Up:

Have students close eyes - visualize what they need to survive - explain wants vs. needs. Have students sketch with words and pictures their needs. Share. Intro term “habitat”. Repeat process but from the viewpoint of a salmon’s needs. Sketch with words and pictures. Share with class.

Explore:

Tell students they will complete stream surveys (worksheets) on two different salmon habitats in the Sitka area - Indian River and Starrigavin River. Distribute stream survey worksheets. Form teams of 4 - measure width, depth, temperature, observe and record flora and fauna, characteristics of stream and substrate, collect aquatic insects for identification. Note: this may take two morning sessions.

Generalize:

Share data collected from previous activity. What similarities do you see? What differences do you see? Why are the two streams different? Complete a Venn diagram comparing the data from the two salmon stream surveys.

Assess/Apply:

Have students create 3D models of a salmon redd (nest) incorporating what they've learned re: habitat. Paint paper plate blue, glue gravel to base, make salmon eggs from clay (or salt dough), cut out patterns for male and female salmon, pick species and color according to spawning phase. Give short presentation to group. What makes a good habitat for salmon? What factors can be harmful to salmon habitat? How can we help protect salmon habitat?

Extensions:

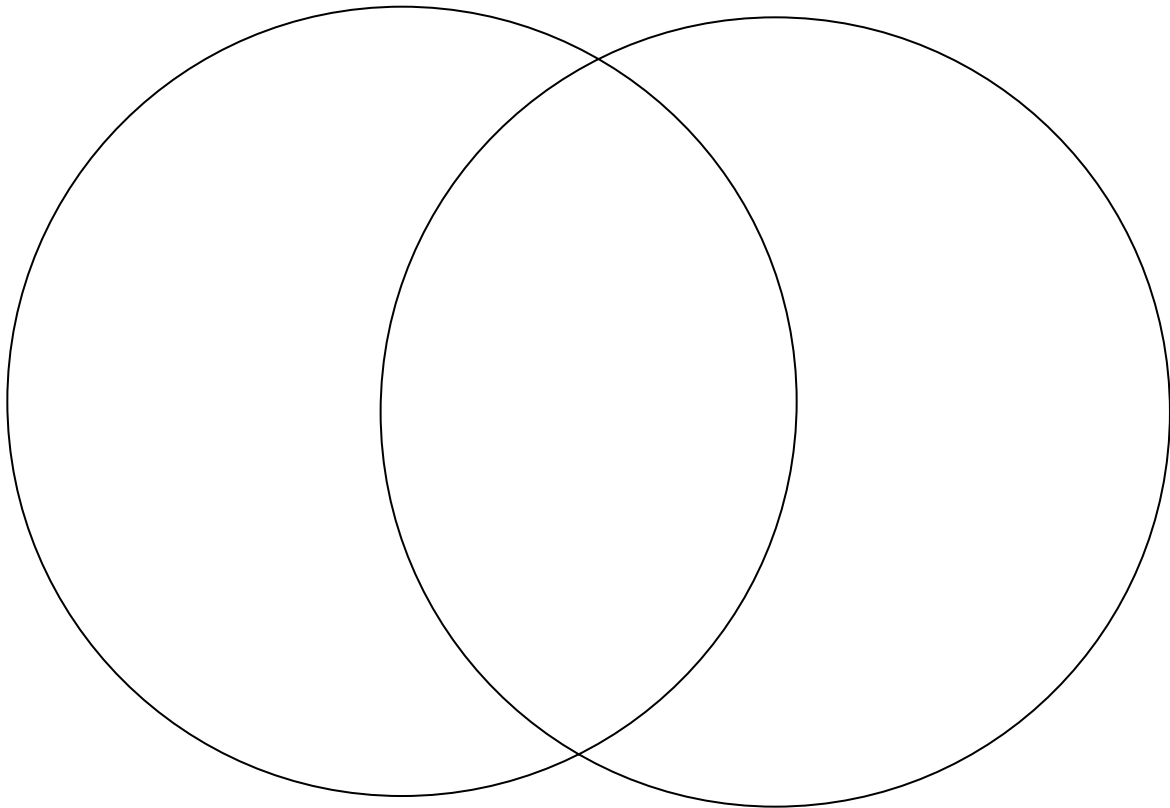
- Write stories re: their salmon redd (from the salmon's perspective)
- Make a 3D model of a salmon's saltwater habitat as a class project
- Compare a salmon's habitat with other fish (ex. - tropical)
- Make 3D models of other animals' habitats/give speeches

Name

Using the data you collected on your two stream surveys at Indian River and Starrigavin River, complete the Venn diagram below. List the differences and similarities between the two stream habitats.

Indian River

Starrigavin River



Rubric

Activity	Hatching 1	Smolting 3	Ocean Going 5
Habitat drawings: 1. individual 2. salmon	Unrelated drawings: vague attempt; cannot explain "habitat"	One or two drawings; saome misrepresentation with picures or words; some attmpt to explain "habitat"	Two drawings; uses pictures and words; correct representation; can explain "habitat" in detail
Stream survey of two salmon habitats in Sitka area	No attempt to record data: unreadable; did not attempt measurements	Organized data; some errors; mat be hard to read; labeling absent or incorrect; inaccurate measurements	Organized data; no erros; labeled correctly, easy to read; accurate measurements.
Venn diabram of stream surveys	Inaccurate diagram; ;little or no attempt made; unable to explain diagram	Diabram somewhat accurate; may be hard to read; can explain one part of diagram	Diagram accurate; labeled correctly; easy to read; can explain both parts of diabram
3D model of salmon redd(nest)	Model poorly done or unfinished; cannot explain needs or salmon	Model somewhat inaccurate; may be messy; can explain 2-3 habitat needs of salmon	Model accurate; neatly done; can explain the 4 habitat needs of salmon - food air, water, shelter.