

Salmon Spawning



Salmon are a crucial part of Idaho's river ecosystems. They are also vital to many tribal communities, and important to recreational and commercial fisherman. These iconic fish migrate to the ocean and then return to their native waters where they spawn and die — and the cycle begins anew. But salmon have a new normal: dams and development have relegated them to the endangered species list. Today, only two percent of historical populations remain.

Possible topics of discussion:

- How does the life cycle of a salmon differ from other species of fish?
- How did the human development of the dams on the Snake River lead to part of the problem? Are there other ways humans are contributing to the problem? How could this problem be solved without impacting the production of energy?
- What types of pollution are the different species of salmon vulnerable to? How could you design a program to examine the uptake of pollutants by juvenile salmon?
- The migration of salmon from coastal waters through an estuary and upriver involves many changes in physical environment, physiology and behavior. Salmon commonly spend a few days to weeks in an estuary before migrating upriver. Why the delay? What physiological changes would need to take place before they continue their journey?
- The great majority of salmon that live to maturity return to spawn in their natal stream. How do they recognize that stream and make their way back there?

Performance Standards

1 st Grade	3 rd Grade	5 th Grade	Middle School	High School
1-LS-1.3. Develop models to describe that organisms have unique and diverse life cycles but all have in common birth, growth, reproduction, and death.	3-LS-2.2. Use evidence to support the explanation that traits can be influenced by the environment.	5-LS-2.4. Make a claim about the merit of a solution to a problem caused when the environment changes and the types of plants and animals that live there may change. 5-ESS-3.1. Support, obtain and combine information about ways individual communities use science ideas to protect the Earth's resources and environment.	MS-LS-2.1. Analyze and interpret data to provide evidence for the effects of resource availability on organisms and populations of organisms in an ecosystem. MS-ESS-3.3. Apply scientific principles to design a method for monitoring and minimizing a human impact on the environment.	HS-LS-2.2. Use mathematical representations to support explanations that biotic and abiotic factors affect biodiversity at different scales within an ecosystem. HS-ESS-3.4. Evaluate or refine a scientific or technological solution that mitigates or enhances human influences on natural systems.



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