

TEAM SALMON STATS

2022 ORSEA Capstone Presentation

OUR TEAM



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ANCHORING PHENOMENA / DRIVING QUESTION

Anchoring Phenomenon: Population fluctuations in salmon

Driving Question: Why can't all salmon be managed in the same fashion?

Essential Questions:

1. How are the life cycles of different salmon species similar and different?
2. How can we use models to predict population changes?
3. How does the life cycle of a salmon impact the management of the species?



EDUCATION GOALS, OBJECTIVES, AND STANDARDS ADDRESSED

Science

HS-LS2-2.

Use mathematical representations to support and revise explanations based on evidence about factors affecting biodiversity and populations in ecosystems of different scales.

Disciplinary Core Ideas:

LS2.A: Interdependent Relationships in Ecosystems

LS2.C: Ecosystem Dynamics, Functioning, and Resilience

Math

HS.NQ.B.4

Define, manipulate, and interpret appropriate quantities using rational and irrational numbers to authentically model situations and use reasoning to justify these choices.

Math Practices:

MP.2 Reason abstractly and quantitatively.

MP.4 Model with mathematics.

5-E LESSON MODEL AND ASSOCIATED ACTIVITIES

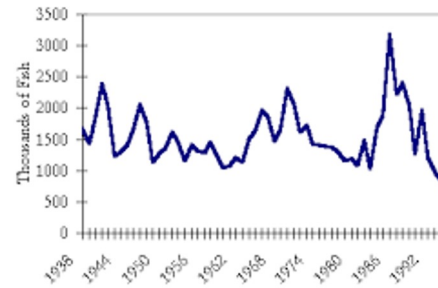
Engage

Students discuss their connections to salmon and cultural importance of salmon.



Explain

Students use a statistical model to evaluate changes survivorship at different life stages.



Evaluate

Students write an autobiographical story from the perspective of a salmon and write about obstacles they face at different life stages.



Elaborate

Students use salmon habitat information and possible threats to salmon to brainstorm population management strategies.



Explore

Students are introduced to reading a line graph and different life histories of salmon species.

