Lesson: Salmon in the Columbia: Water Quality **Class Periods:** *1-2* **Date:**

Objectives

- Identify a variety naturally occurring and human related changes to the spawning habitat of salmon and assess their potential impact.
- Understand the impact of fine silts on the viability of salmon eggs.
- Interpret changes in landscape using areal infrared photographs and assess the possible impact of any changes on salmon population.
- Apply the concepts of slope and line of best fit, the correlation coefficient, and equations to interpret the relationship between experimental variables.

Materials/Equipment

- *copies of or computer access to* ***South Fork Salmon River Information*** *article.*
- *video projector*
- *class access to computers*

Lesson Outline

• Read - South Fork Salmon River Information	• *Article provides background information related to the South Fork of the Salmon River, historical uses of the area, its geography and geology*
• *Siltation - whole class discussion*	• *Discuss the various factors contributing to siltation in the South Fork discussed in the article.* • *Work thru the series of slides showing siltation at Poverty Flats over a three decade period having students note and discuss changes in the area.*
• *Interpreting* ***ChangeMatters*** *maps*	• *The side-by-side maps of Mt. St. Helens - pre and post eruption along with vegetative changes - make a nice basis for discussing interpretation of infrared areal photos like these. Notice that dates can be modified to reflect changes since the volcano erupted.*
• *Computer lab activity - Interpreting change along the South Fork*	• *Work with students to interpret the graph briefly discussing the significance of the slope of the line, the correlation coefficient, and use of the equation,*

Assessment

Write a short summary of the ***ChangeMatters*** *activity addressing questions #6 & 7 that accompany the instructions.*