

TABLE 1

Activities list and NGSS performance expectations.

Activity	NGSS Performance Expectation
<p>Virtual Dissection</p> <p>Students use a computer simulation to identify the external features of salmon and to perform a virtual dissection, then construct an argument about how these features support survival.</p>	<p>4-LS1-1: Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.</p>
<p>Stream Builder Model</p> <p>Students use a computer model to design a salmon stream and to identify stream parameters that are essential for the survival of salmon eggs. Students test and revise their models to improve the success of their salmon stream.</p>	<p>3-LS1-1: Develop models to describe that organisms have unique and diverse life cycles but all have in common birth, growth, reproduction, and death.</p>
<p>Salmon Life Cycle</p> <p>Students develop a model of the salmon life cycle and use this model to predict which stages are most affected by dams, pollution, overfishing, and habitat destruction.</p>	<p>3-LS1-1: Develop models to describe that organisms have unique and diverse life cycles but all have in common birth, growth, reproduction, and death.</p>
<p>Gummy Bear Osmosis</p> <p>Students use a gummy bear experiment to visualize what happens to a salmon when it migrates from freshwater to saltwater.</p>	<p>3-LS1-1: Develop models to describe that organisms have unique and diverse life cycles but all have in common birth, growth, reproduction, and death.</p>
<p>Chemical Cues</p> <p>Students use a model to simulate how adult salmon use chemical cues to find their natal stream for successful reproduction and the impacts of chemical pollution.</p>	<p>4-LS1-2: Use a model to describe that animals receive different types of information through their senses, process the information in their brain, and respond to the information in different ways.</p>