

## King County Secondary EcoConnections Classroom Workshop Standards

Below are the key Washington State Learning Standards covered in middle and high school EcoConnections workshops. Workshops directly address the Washington State Environmental and Sustainability Standards Connections. This document also highlights the Washington State Science Learning Standards (WSSLS) and Washington State Learning Standards for Social Studies addressed in the various classroom workshops offered by the King County Solid Waste Division.

All secondary workshops incorporate the three Environmental and Sustainability Standards Connections.

**ESE Standard 1: Ecological, Social, and Economic Systems.** Students develop knowledge of the interconnections and interdependency of ecological, social, and economic systems. They demonstrate an understanding of how the health of these systems determines the sustainability of natural and human communities at local, regional, national, and global levels.

**ESE Standard 2: The Natural and Built Environment.** Students engage in inquiry and systems thinking and use information gained through learning experiences in, about, and for the environment to understand the structure, components, and processes of natural and human-built environments.

**ESE Standard 3: Sustainability and Civic Responsibility.** Students develop and apply the knowledge, perspective, vision, skills, and habits of mind necessary to make personal and collective decisions and take actions that promote sustainability.

### Middle School EcoConnections Standards

	Biodiversity	Biospheres	Consumption Junction	Food for Thought	Four Rs for Our Climate	Plastic Pollution and Our Oceans	Waste Systems and the Circular Economy
<b>Next Generation Science Standards (NGSS) / WSSLS</b>							
<b>MS-PS 1-3</b> Gather and make sense of information to describe that synthetic materials come from natural resources and impact society.	●	●	●	●	●	●	●
<b>MS-LS 1-6</b> Construct an explanation for the role of photosynthesis in cycling of matter and flow of energy into and out of organisms.		●					
<b>MS-LS 2-1</b> Analyze and interpret data to provide evidence for the effects of resource availability on organisms and populations of organisms in an ecosystem.	●	●					

<b>MS-LS 2-3</b> Develop a model to describe cycling of matter and flow of energy among living and nonliving parts of ecosystem.	•	•					
<b>MS-LS 2-4</b> Construct an argument explaining that changes to physical and biological components of an ecosystem affect populations.	•	•	•		•	•	•
<b>MS-LS 2-5</b> Evaluate competing design solutions for maintaining biodiversity and ecosystem services.	•	•	•			•	•
<b>MS-ESS 3-3</b> Apply scientific principles to design a method for monitoring and minimizing a human impact on the environment.						•	•
<b>MS-ESS 3-4</b> Construct an argument for how increases in human population and per-capita consumption of natural resources impact Earth's systems.	•	•	•	•	•	•	•
<b>MS-ESS 3-5</b> Ask questions to clarify evidence of the factors that have caused the rise in global temperatures over the past century.				•	•		•
<b>MS-ETS 1-3</b> Define the criteria and constraints of a design problem with sufficient precision to ensure a successful solution, taking into account relevant scientific principles and potential impacts on people and the natural environment that may limit possible solutions.							•
<b>Washington State Learning Standards for Social Studies</b>							
<b>SSS1.6-8.1</b> Analyze positions and evidence supporting an issue or an event.						•	•
<b>SSS3.6-8.1</b> Engage in discussions, analyzing multiple viewpoints on public issues.	•	•	•	•	•	•	•
<b>E4.6-8.1</b> Explain the distribution of wealth and sustainability of resources in the world.	•		•		•	•	•
<b>G2.6-8.1</b> Explain and analyze how the environment has affected people and how people have affected the environment in world history.	•	•	•	•	•	•	•

## High School EcoConnections Standards

	Biodiversity	Biospheres	Climate and Communities	Consumption Junction	Earth Impact	Food for Thought	Four R for Our Climate	Plastic Pollution and Our Oceans	Waste Systems and the Circular Economy
<b>Next Generation Science Standards (NGSS) / WSLS</b>									
<b>HS-LS2-3</b> Construct and revise an explanation based on evidence for the cycling of matter and flow of energy in aerobic and anaerobic conditions.	●	●				●			
<b>HS-LS 2-5</b> Develop a model to illustrate the role of photosynthesis and cellular respiration in the cycling of carbon among the biosphere, atmosphere, hydrosphere, and geosphere.		●					●		
<b>HS-LS 2-6</b> Evaluate claims that the complex interactions in ecosystems maintain relatively consistent numbers and types of organisms in stable conditions; but changing conditions may result in a new ecosystem.	●	●							
<b>HS-LS 2-7</b> Design a solution for reducing impacts of human activities on the environment and biodiversity.	●	●	●	●	●	●	●	●	●
<b>HS-ESS3-1</b> Construct an explanation based on evidence for how the availability of natural resources, occurrence of natural hazards, and changes in climate have influenced human activity.	●	●	●	●	●	●	●		●
<b>HS-ESS3-2</b> Evaluate competing design solutions for developing, managing, and utilizing energy and mineral resources based on cost-benefit ratios.				●	●				●
<b>HS-ESS3-4</b> Evaluate or refine a technological solution that reduces impacts of human activities on natural systems			●	●	●		●	●	●
<b>HS-ETS1-2</b> Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering			●		●	●		●	●
<b>HS-EST1-3</b> Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics as well as possible social, cultural, and environmental impacts.	●	●	●	●	●	●	●	●	●

**Washington State Learning Standards for Social Studies**

<b>SS2.9-12.1</b> Create compelling and supporting questions that focus on an idea, issue, or event.			•		•				•
<b>SS3.9-12.1</b> Evaluate one's own viewpoint and the viewpoints of others in the context of a discussion.			•			•			•
<b>SS3.9-12.6</b> Assess options for individual and collective action to address local, regional, or global problems by engaging in self-reflection, strategy identification, and complex causal reasoning.	•	•	•	•	•	•	•	•	•
<b>C2.9-10.1</b> Explain how citizens and institutions address social and political problems at the local, state, tribal, national, and international level.			•						•
<b>E4.9-10.1</b> Evaluate how people across the world have addressed issues involved with the distribution of resources and sustainability.			•	•	•				
<b>G2.9-10.1</b> Analyze human interaction with the environment across the world in the past or present.	•		•	•	•		•	•	•