Outdoor Learning Sites

A Key Component of the Tahoma Sustainability Curriculum

Connecting Learning With Real World Application

Creation and use of Outdoor Learning Sites at each of our schools is seen as an easy, manageable way to breathe life into concepts learned in the classroom. Students better absorb and retain knowledge and skills that incorporate their immediate environments using all five senses. This is found to be especially impactful when outdoor activities are integrated as part of the structured curriculum. Urban and suburban living along with the increasingly digital social interactions of our children can be balanced by ensuring outdoor learning experiences are included as part of the curriculum. Our outdoor learning sites are as close as the door to the classroom.

Anchor points for Outdoor Learning Sites include:

- Inclusion of learning goals connected to outdoor sites is part of the documented curriculum.
- Outdoor learning areas are customized to each school site, based on the unique features and attributes of each school site and the surrounding neighborhood.
- Use of outdoor learning spaces to support learning is a district priority and there is a partnership between grounds maintenance staff with school and district staff to support and maintain the use of the school grounds

Planting of the Rain Garden by RCES Students

Rain Gardens

A rain garden is a shallow depression that is planted with deep-rooted native plants and grasses. The garden is positioned near a runoff source like a downspout to capture rainwater runoff and allow the water to naturally filter through the soil so it does not contribute to stormwater runoff. By Fall 2012, each of the Tahoma schools will have at least one rain garden. Curriculum units integrate use of the rain gardens at all levels.

School Gardens

School sites have choice on the types and variety of gardens that are established and maintained on the property. Green teams, PTA groups, and classroom teachers may establish gardens. Principals should connect with the district maintenance and operations staff in planning for a school garden. Currently, there are many different gardens at the various school sites.

School Gardens at Shadow Lake Elementary

Food Garden – TSHS, GPES, SLES
Native Plant Garden – SLES, TSHS,
Flower Garden – SLES, RCES, GPES, TSHS, CRMS
Scent and Touch Garden – SLES,
Bird Garden – SLES
Butterfly Garden – SLES

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Nature Trails

Trail use has become popular for a wide variety of users. On our schools sites or adjacent property trails are designated as nature trails, and are used by students learning about the natural world.

Forest Trails at CRMS, SLES, RCES, TJHS – provide natural habitat study of plants and animals native to the urban forests of the Pacific Northwest

Arboretum Trails adjacent to LWES

Signage supports student recognition and understanding of green features in the outdoor classrooms

Green Infrastructure

Green infrastructure is strategically planned and managed networks of natural lands, working landscapes and other open spaces that conserve ecosystem values and functions and provide associated benefits to the ecosystem. The foundation of green infrastructure networks are their natural elements – woodlands, wetlands, rivers, grasslands – that work together as a whole to sustain ecological values and functions. At multiple points in the curriculum students are challenged to examine the school site to identify potential green infrastructure improvements.

Green Infrastructure Elements

Porous or permeable pavement projects
The Fred Meyer complex construction at 4 Corners is adjacent to TJHS and provides examples for student study

Swale management (infiltration trenches)
TSHS, SLES

Rain gardens – TSHS, TJHS, TMS, CRMS, GPES, LWES, RCES, SLES

Rain Barrel at CRMS

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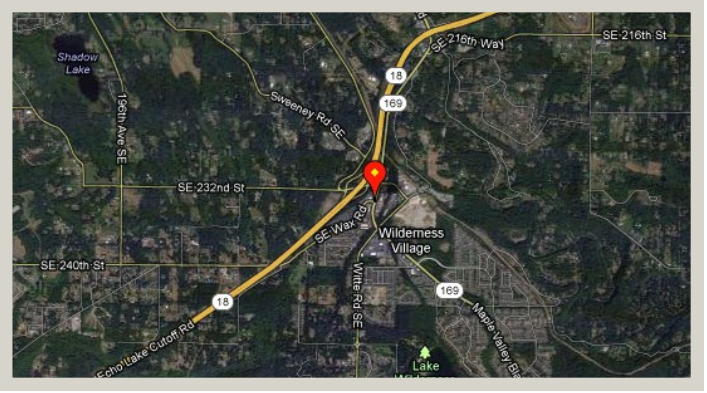
Landscape Investigation

Landscape investigation is a way of visualizing both space and place. A space is a given location and place refers to the way in which a location has changed over time and is defined in terms of relationships that are meaningful to humans.



There are three phases to a landscape investigation. The first is spatial inquiry, where students describe parts of a landscape. The second is connective inquiry, involving collecting data on evidence of interplay between human and natural systems from multiple geographic perspectives. The third is analytical inquiry, involving quantitative analysis of two or more variables that the researcher hypothesizes are related.

Engineering Practices – Using the School Site

In the Next Generation Science Standards we are challenged to focus on both science and engineering practices. Engineering involves the formulation of a problem that can be solved through design. Using the school site as a learning laboratory will strengthen student eyes to identify problems. Scientific inquiry allows students to investigate the factors that contribute

Students identified the need and sited a rain barrel at Cedar River Middle School

Anchor Thinking Skills for Outdoor Learning Site Investigations

- Observing
- Comparing/Contrasting
- Classifying
- Finding Patterns
- Finding Evidence
- Problem Solving
- Cause and Effect
- Analysis

Anchor Habits of Mind for Outdoor Learning Site Investigations

- Responding with Wonderment and Awe
- Questioning and Problem Posing
- Gathering Data through the Senses
- Thinking Interdependently
- Metacognition
- Responsible Risk Taking
- Applying Past Knowledge
- Thinking Flexibly