



***The Future of Waste: Certification and Curriculum
with Washington Green Schools***

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- Who is Washington Green Schools?
- Our Certification program with a focus on Waste and Recycling
- The story of *Zombie Guacamole!*
- our new curriculum on waste and decomposition

What are we accomplishing today?



Our Mission: To guide and support students and schools to become leaders for the environment





Our Vision: Every school will teach, model, and practice environmental sustainability. Every child will attend a green & healthy school.



Who's Involved?

- Over 460 schools
- 90 school districts
- 27 out of 38 counties
- 94,700 students in certified schools





Mandate: The Details

Seattle Public Schools transitioned to mandatory composting in food service areas and improved recycling throughout the school district in 2015 because:

- **It's the law.** Compostable materials are prohibited from the garbage starting in January 2015 (Ordinance #124582).
- **Recycling and composting saves money.** Within Seattle Public Schools, research shows that disposing of trash in the garbage costs 4 times as much as recycling it.
- **It's better for the environment & our students.** Recycling and composting reduces our carbon footprint, diverts materials from the landfill, and turns them into usable products. It is responsibility of Seattle Public Schools to model environmental stewardship to their students, staff, and school communities (SPS Policy & Procedures H25.00 & H25.01).

So how can WGS help?

- Provide teachers resources and support allowing schools to achieve sustainability goals
- Step-by-step guidance and support to certify in Waste & Recycling
- Online resources, classroom curriculum, and more!
- School and community-wide recognition





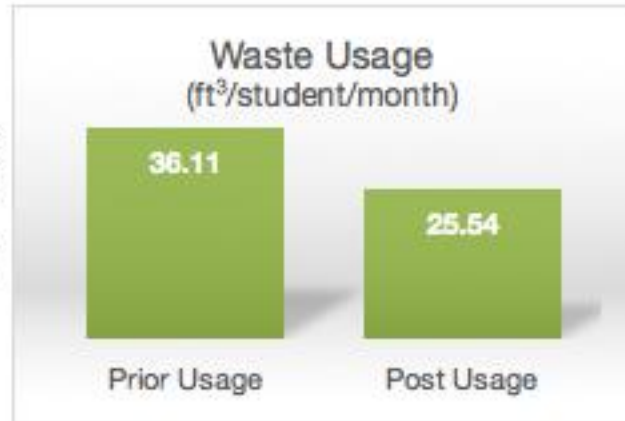
Certification Steps

1. Build Green Team
2. Assess Your School
3. Make a Lasting Change
4. Verify and Reflect
5. Share Your Story
6. Get Certified!

Conserve Resources

Total Annual Savings
for 14 schools:

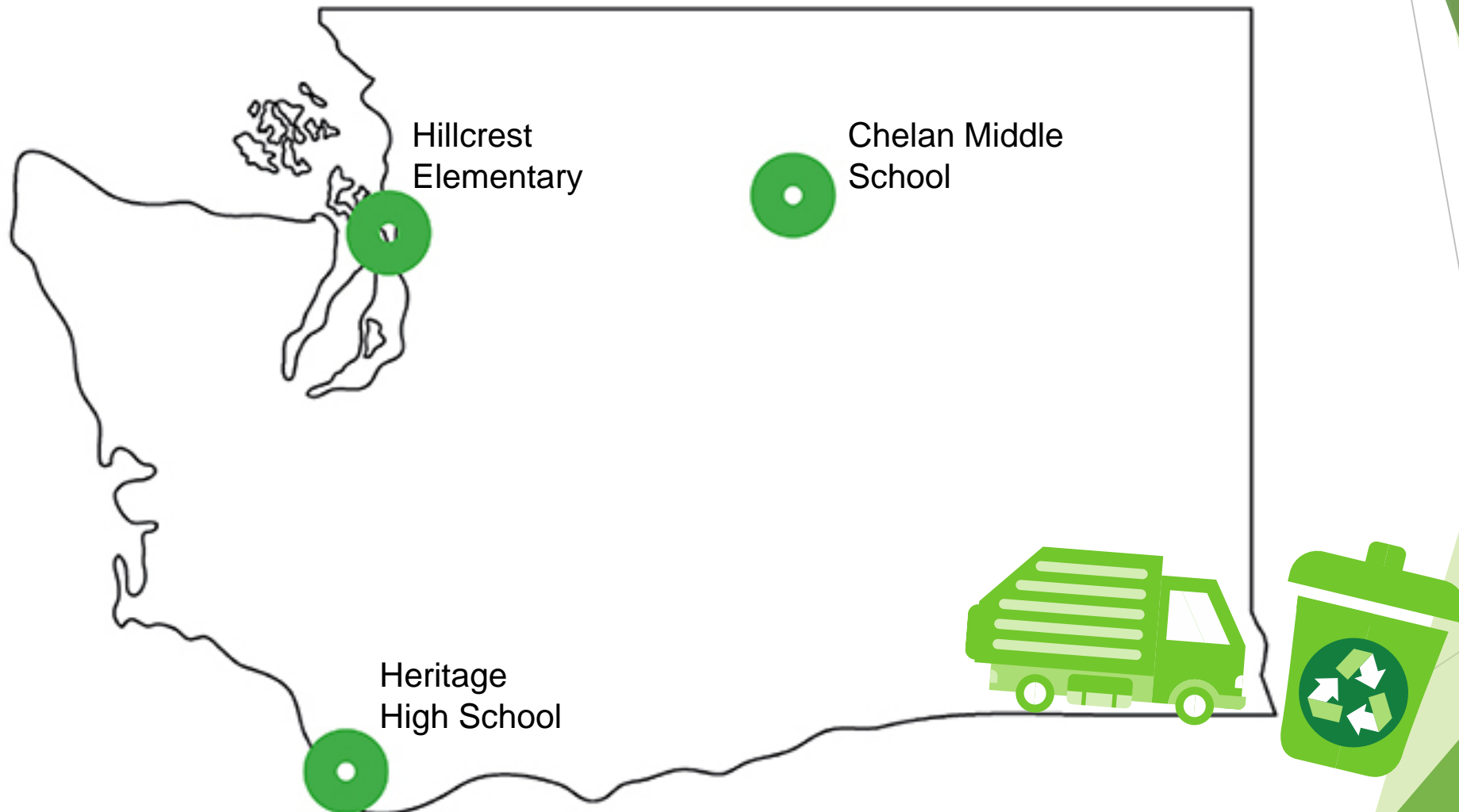
\$26,276.60



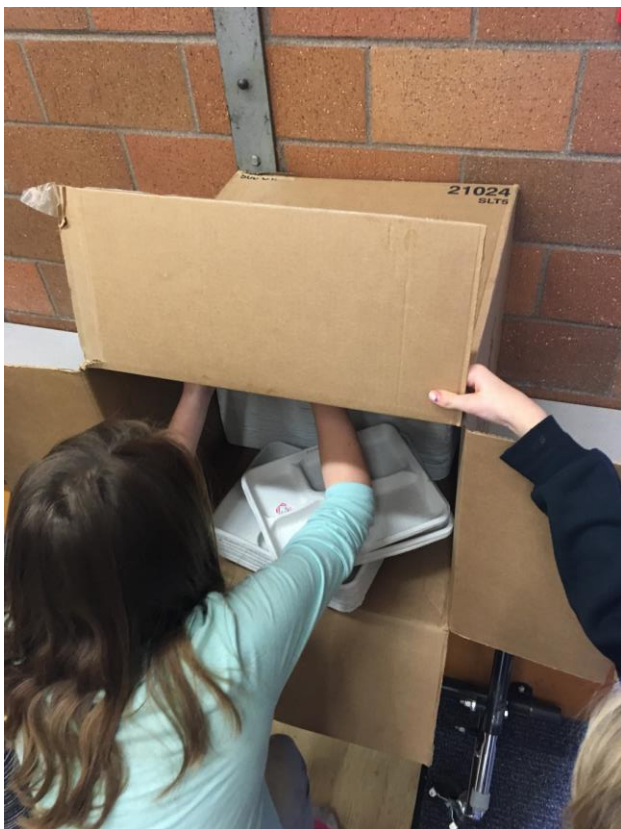
Engage Students



School Success Stories!



Hillcrest Elementary



Heritage High School



Chelan Middle School



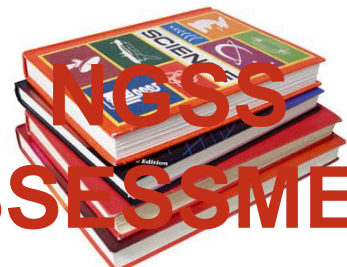
The Story of *Zombie Guacamole!*



**COMPOSTING
MANDATE**
Resource
Conservation



GARDENS
Self-Help



**NGSS
ASSESSMENT**
Science Curriculum

Next Generation Science Standards

Students who demonstrate understanding can:

5-ESS3-1. Obtain and combine information about ways individual communities use science ideas to protect the Earth's resources and environment.

The performance expectation above was developed using the following elements from the NRC document *A Framework for K-12 Science Education*:

Science and Engineering Practices

Obtaining, Evaluating, and Communicating Information

Obtaining, evaluating, and communicating information in 3–5 builds on K–2 experiences and progresses to evaluating the merit and accuracy of ideas and methods.

- Obtain and combine information from books and/or other reliable media to explain phenomena or solutions to a design problem.

Disciplinary Core Ideas

ESS3.C: Human Impacts on Earth Systems

- Human activities in agriculture, industry, and everyday life have had major effects on the land, vegetation, streams, ocean, air, and even outer space. But individuals and communities are doing things to help protect Earth's resources and environments.

Crosscutting Concepts

Systems and System Models

- A system can be described in terms of its components and their interactions.

Connections to Nature of Science

Science Addresses Questions About the Natural and Material World.

- Science findings are limited to questions that can be answered with empirical evidence.

Students who demonstrate understanding can:

- 5-LS2-1. Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment.** [Clarification Statement: Emphasis is on the idea that matter that is not food (air, water, decomposed materials in soil) is changed by plants into matter that is food. Examples of systems could include organisms, ecosystems, and the Earth.] [Assessment Boundary: Assessment does not include molecular explanations.]

The performance expectations above were developed using the following elements from the NRC document *A Framework for K-12 Science Education*:

Science and Engineering Practices

Developing and Using Models

Modeling in 3–5 builds on K–2 models and progresses to building and revising simple models and using models to represent events and design solutions.

- Develop a model to describe phenomena. (5-LS2-1)

Connections to the Nature of Science

Science Models, Laws, Mechanisms, and Theories Explain Natural Phenomena

- Science explanations describe the mechanisms for natural events. (5-LS2-1)

Disciplinary Core Ideas

LS2.A: Interdependent Relationships in Ecosystems

- The food of almost any kind of animal can be traced back to plants. Organisms are related in food webs in which some animals eat plants for food and other animals eat the animals that eat plants. Some organisms, such as fungi and bacteria, break down dead organisms (both plants or plants parts and animals) and therefore operate as “decomposers.” Decomposition eventually restores (recycles) some materials back to the soil. Organisms can survive only in environments in which their particular needs are met. A healthy ecosystem is one in which multiple species of different types are each able to meet their needs in a relatively stable web of life. Newly introduced species can damage the balance of an ecosystem. (5-LS2-1)

LS2.B: Cycles of Matter and Energy Transfer in Ecosystems

- Matter cycles between the air and soil and among plants, animals, and microbes as these organisms live and die. Organisms obtain gases, and water, from the environment, and release waste matter (gas, liquid, or solid) back into the environment. (5-LS2-1)

Crosscutting Concepts

Systems and System Models

- A system can be described in terms of its components and their interactions. (5-LS2-1)

Hazel Wolf K-8 STEM School



THANK YOU!



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