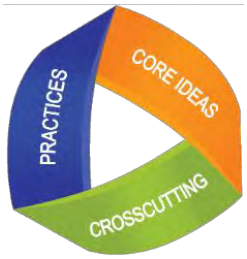
Level Three – Water Conservation and Pollution Prevention

High School, NGSS Codes Sheet



This sheet is designed to accompany the standards alignment document. The connections between the **Next Generation Science Standards** (NGSS) and **King County Level One Best Practices Guide** uses the matrices created by the National Science Teachers Association (NSTA) available at http://ngss.nsta.org/ngss-tools.aspx.

Science & Engineering Practices

1. Asking questions (for science) and defining problems (for engineering)
2. Developing and using models
3. Planning and carrying out investigations
4. Analyzing and interpreting data
5. Using mathematics and computational thinking
6. Constructing explanations (for science) and designing solutions (for engineering)
7. Engaging in argument from evidence
8. Obtaining, evaluating, and communicating information

Disciplinary Core Ideas

Life Sciences

- LS1:From molecules to organisms: Structures and processes
- LS2: Ecosystems: Interactions, energy, dynamics
- LS3: Heredity: Inheritance and variation of traits
- LS4: Biological evolution: Unity and diversity

Physical Sciences

- PS1: Matter and its interactions
- PS2: Motion and stability: Forces and interactions
- PS3: Energy
- PS4: Waves and their applications in technologies for information transfer

Earth and Space Sciences

- ESS1: Earth's place in the universe
- ESS2: Earth's systems
- ESS3: Earth and human activity

Engineering, Technology, and Applications of Science

- ETS1: Engineering design
- ETS2: Links among engineering, technology, science, and society

Crosscutting Concepts

- Patterns
- Cause and effect: Mechanism and explanation
- Scale, proportion, and quantity
- Systems and system models
- Energy and matter: Flows, cycles, and conservation
- Structure and function
- Stability and change

Assess and Monitor section of Best Practices Guide

- Practice 1, grades 9-12, bullet 8.
- Practice 3, grades 9-12, bullet 6.

- ETS1.A-1: Defining and Delimiting an Engineering Problem.
- ETS1.B-1: Developing Possible Solutions.
- ETS1.C-1: Optimizing the Design Solution.

- Concept 2, grades 9-12, bullet 2.

Education and Outreach section of Best Practices Guide

- Practice 8, grades 9-12, bullet 5.
- Practice 1, grades 9-12, bullet 8.
- Practice 3, grades 9-12, bullet 4.
- Practice 8, grades 9-12, bullet 1.

- ESS2.C-1: The Roles of Water in Earth's Surface Processes.
- ESS3.D-2: Global Climate Change.
- ETS1.A-1: Defining and Delimiting an Engineering Problem.
- ETS1.B-2: Developing Possible Solutions.
- ETS1.C-1: Optimizing the Design Solution.

- Concept 6, grades 9-12, bullet 1.
- Concept 7, grades 9-12, bullet 4.

Indoor Water Conservation section of Best Practices Guide

• Practice 6, grades 9-12, bullet 5. • Practice 3, grades 9-12, bullet 2.	• ETS1.B-1: Developing Possible Solutions.	• Concept 3, grades 9-12, bullet 1. • Concept 7, grades 9-12, bullet 4.

Outdoor Water Conservation section of Best Practices Guide

• Practice 6, grades 9-12, bullet 5. • Practice 8, grades 9-12, bullet 2.	• ETS1.B-1: Developing Possible Solutions.	• Concept 1, grades 9-12, bullet 3. • Concept 7, grades 9-12, bullet 4.