

Name:

Date:

Class:

Water Filtration Teacher Rubric

Water Filtration System Rubric

Category 1: Functionality and Effectiveness

Aligned with MS-ETS1-4: Develop a model to generate data for iterative testing and modification of a proposed object, tool, or process such that an optimal design can be achieved.

- **Highly Effective:** The filtration system is highly effective at purifying water. All stages work as intended, and the final water is clear and clean. The system demonstrates an optimal design based on iterative testing.
- **Effective, but could be improved:** The filtration system works, but with noticeable issues. Some stages may not work properly, and the final water is somewhat clear. The design has some evidence of testing but needs further optimization.
- **Needs Significant Improvement:** The filtration system has major issues and is not very effective. Few stages work as intended, and the final water is not very clear. The design shows minimal evidence of testing and modification.
- **Not At All Effective:** The filtration system is not functional and does not demonstrate iterative testing or design optimization.

Category 2: Explanation and Understanding

Aligned with MS-PS1-3: Gather and make sense of information to describe that synthetic materials come from natural resources and impact society.

- **Excellent:** The student provides a thorough and clear explanation of the filtration system, including the purpose of each stage and the science behind it. The student demonstrates a strong understanding of water filtration concepts and how materials used in the system are derived from natural resources.
- **Good:** The student provides an adequate explanation but may miss some details. The understanding of water filtration concepts and material origins is basic.
- **Marginal:** The explanation is unclear or incomplete. The student shows a limited understanding of water filtration concepts and material origins.
- **Poor:** The explanation is very poor or nonexistent. The student shows little to no understanding of water filtration concepts and material origins.

Grading Scale:

- **A = Green/Green**
- **B = Green/Orange**
- **C = Orange/Orange**
- **D = Orange/Red**
- **F = Red/Red**