

Turbidity or Not Turbidity?
That is the question.

Eighth Grade
Science

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Context of Curriculum Product

- To access prior knowledge, students create a word wall of terms they would associate with rivers and streams before beginning the unit.
- Earth's Waters Prentice Hall Chapter 2-1 Watersheds: Introduces features of streams (headwaters, mouth, tributaries, meander, etc)
- Factors that affect runoff
- Factors that affect stream flow
- Intro to Water Quality (Testing Phase)
- Turbidity - Test 1

Turbidity or Not Turbidity? That is the question

OBJECTIVE(S)

- As a result of this activity, students will have a clear understanding of turbidity as a significant indicator of overall water quality for the aquatic community as well as human health.
- Students will learn that sediment is the number one source of non-point source pollution in our rivers and streams.
- Students will perform turbidity tests on three types of water: tap, creek/pond, and water made turbid with sand, silt, and clay.
- Students will be able to identify ways of erosion prevention and safe management practices of our farms, urban areas, etc.

PROGRAM OF STUDIES

- **S-8-AC-3** Students will recognize how science is used to understand changes in populations, issues related to resources, and changes in environments.

CORE CONTENT

- **SC-08-4.6.5** Students will explain the effects of change to any component of the ecosystem.

MATERIALS NEEDED TO TEACH LESSON

- Laptop/In focus for power point presentation
- Turbidity Test worksheet page 89 from Healthy Water, Healthy People Water Quality Indicators Guide.
- Copy of Best Management Practices page 85 - Same Book
- 100 ml Beakers (1 for each group)
- Three types of water: Tap, Creek/Pond, Water made turbid from sand, silt, etc.

ACTIVITY PROCEDURE

- See copy of worksheet page 89

DEFINITION/EXPLANATION OF CONCEPT/SKILLS TAUGHT

- After viewing the power point on turbidity, students will have a better understanding of the importance of clear, clean water as an assessment of streams
- Students will understand why water treatment plants test for turbidity several times per day.
- Students will test the three samples of water and compare the results

METHOD TO ASSESS STATED OBJECTIVE

- Written Test
- Performance Test
- Writing to learn journal entry.

REFERENCES

- Text - Earth's Waters
- Text - Healthy Water, Healthy People Water Quality Indicator Guide Lesson on Turbidity.