

Washington Township School District

STEM/Makerspace Curriculum

Grade:	5	Mystery Science Unit/Project Title:	Mystery Science: A Watery Planet STEM: The Water Project Thematic Unit
NJ Learning Standard(s):	5-LS2-1		
Objective:	Students will: <ul style="list-style-type: none"> • Evaluate if water can be “cleaned” • Evaluate if molecules can be removed from water • Create a water filtration system • Apply learning and findings to effectively respond to question: How does the scarcity of fresh drinking water effect lives? • Identify 3 potential impacts of fresh water scarcity • Explore issues relating to water scarcity, the effects of dirty and unsafe water, and the lack of proper sanitation and hygiene in a community 		
STEM/ Unit Activities	Creating Fresh Water		
Suggested Assessments:	<ul style="list-style-type: none"> • Science Lab PURIFYING WATER packet (teacher created and shared) • Science Journal • Thematic Unit “project” – each teacher will have to create • Unit Test 		
Supplies Needed:	<ul style="list-style-type: none"> • a measuring cup • a teaspoon • 2 baby food jars with lids • activated charcoal • water • red food coloring 		

**Resources to
Support Unit:**

Thematic/Cross-Curricular Unit: <https://thewaterproject.org/resources/lesson-plans/>

STEM activity: <https://thehomeschoolscientist.com/charcoal-water-purifying-experiment/>

Cross-Curricular Tie In: "[Water Water Anywhere](#)" illustrates the principal of water abundance versus water scarcity, both physical and economic, by having students move through three stations in which they must fill a water bottle using different rules at each station.

"[Dirty Water... So What?](#)" uses a jigsaw approach to have students teach each other about four potential effects of dirty water: poor health, increased hunger, perpetual poverty, and lack of access to education.

"[Hand Washing Hang Ups](#)" explores the challenges of teaching hand washing and introduces students to the innovative, low cost solution of the tippy-tap before having them get creative in their own solution making.

https://thewaterproject.org/resources/water_pollution_filtration_experiments

<http://stem-works.com/external/activity/6> (move this to forensics)

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Grade:	5	Mystery Science Unit/Project Title:	Mystery Science: Watery Plant STEM: Musconetcong Watershed Study
NJ Learning Standard(s):	5-ESS2-1 5-ESS2-2 ESS3.C		
Objective:	Student will: <ul style="list-style-type: none"> • Explore Earth’s systems, specifically the hydrosphere and the Earth’s fresh water as a natural resource • Learn how there’s surprisingly little fresh water there is on earth, at least compared to the total amount of water • Evaluate how salt water, even though it is common, is not actually something we can drink to survive 		
STEM/ Unit Activities	Musconetcong Watershed Study Scientists from the Musconetcong Watershed will teach students hands-on lessons that covers: the water cycle, fresh versus salt water, consumable water, how water “cleans” itself, how man/the environment directly effect healthy water systems. *Students will follow the scientific process and complete a packet where they: form a hypothesis, pose a scientific question, collect data, analyze/compare data, evaluate information gathered, prove or disprove hypothesis and summarize unit of study. This is an interactive, hands-on STEM activity, which will conclude in a “healthy stream activity” at Meadow Breeze Park.		
Suggested Assessments:	<ul style="list-style-type: none"> • Scientific Process Packet* • Questions/Answer Sheets • Student participation / Q&A • Unit Test 		
Supplies Needed:	Musconetcong Watershed Fee (included in yearly 5 th grade budget).		
Resources to Support Unit:	Hypothesis sheets Clean sneakers/socks		

