

**Washington Township School District**

**STEM/Makerspace Curriculum**

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

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

## Washington Township School District

### STEM/Makerspace Curriculum

<b>Grade:</b>	5	<b>Mystery Science Unit/Project Title:</b>	Mystery Science: Watery Plant STEM: Musconetcong Watershed Study
<b>NJ Learning Standard(s):</b>	5-ESS2-1 5-ESS2-2 ESS3.C		
<b>Objective:</b>	<p>Student will:</p> <ul style="list-style-type: none"> <li>Explore Earth’s systems, specifically the hydrosphere and the Earth’s fresh water as a natural resource</li> <li>Learn how there’s surprisingly little fresh water there is on earth, at least compared to the total amount of water</li> <li>Evaluate how salt water, even though it is common, is not actually something we can drink to survive</li> </ul>		
<b>STEM/ Unit Activities</b>	<p>Musconetcong Watershed Study</p> <p>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.</p> <p>*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.</p> <p>This is an interactive, hands-on STEM activity, which will conclude in a “healthy stream activity” at Meadow Breeze Park.</p>		
<b>Suggested Assessments:</b>	<ul style="list-style-type: none"> <li>Scientific Process Packet*</li> <li>Questions/Answer Sheets</li> <li>Student participation / Q&amp;A</li> <li>Unit Test</li> </ul>		
<b>Supplies Needed:</b>	Musconetcong Watershed Fee (included in yearly 5 <sup>th</sup> grade budget).		
<b>Resources to</b>	Hypothesis sheets		

