

A/C Science 6: Water on Earth Unit Project

Water on Earth: Standard - S6E3. Obtain, evaluate, and communicate information to recognize the significant role of water in Earth processes.

Learning Target: Students will demonstrate clear understanding of the importance and function of water on Earth by researching and designing a model water tower and through writing a clear explanation of the purpose of the water tower and why they are necessary.

Required Vocabulary:

Aquifer, Canyon, Cloud, Condensation, Dam, Engineer, Evaporate, Evaporation, Groundwater, Hydrologic cycle, Hydrology, Infiltration, Permeable, Precipitation, Reservoir, Surface area, Transpiration, Water, Water cycle, Water supply, Water vapor

*****Vocabulary was provided to all students on Monday, October 7 and all were provided one class period in the computer lab to collect their definitions in their notebook.*****

Project Requirements:

1 - Each student or group of students is responsible to design and build a model water tower. If the student has chosen to compete in the MWTC Competition on November 5, 2019, their tower must be build following the complete instructions provided by the Cobb Water Authority when they presented the competition to our students on September 26, 2019.

2 - Students not competing will use their research and notes to design and build a water tower model. This water tower does not have to be sized to the MWTC regulations, nor will it be required to receive or hold water in any way. The models will be presented to the class along with the students explanation of how their tower was built and how it would function in reality.

3 - Students must write a two page (one-sided) research paper explaining the following topics:

- **Why do we need water towers?**
 - **When do we need them?**
- **How critical is the fresh/potable water available to us on Earth?**
 - **Do all people have access to clean, potable water?**
 - **If not, how can a water tower help to mitigate this problem?**

Sources:

In the written paper, students are required to cite all sources used as they are being taught to do in their ELA class. Sentence structure, spelling, appropriate paragraph structure is all subject to grading. The expectation is that the student put effort and care into their research paper.

Important:

Students are to use recycled materials as much as possible in their project.

It is ok to purchase supplies for the project, but not required. I prefer recycled materials and have no expectation that parents spend money on supplies. Students have been told to please ask me first before going to purchase something. There is not a penalty for students spending money on their project, but it is definitely not required.

Outcome:

Students will recognize the importance of water on Earth. They will also realize the value of the water towers within our communities and learn about careers in water management and conservation.

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Rubric