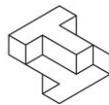


Writing for Change

Lab Related Activity: *Down the Drain*



The Tech
Museum of Innovation

201 S. Market St.
San Jose CA. 95113
1-408-294-8324
thetech.org

This activity is meant to extend your students' knowledge of the topics covered in our Down the Drain lab. Through this activity, your students will use persuasive letter writing to create change!

Grade Levels: 4-8 (Includes modifications for 6-8)

Estimated time: 2 – 60 minute sessions

Learning Outcomes

Students will be able to:

1. Identify people in their community to engage in helping to protect the watershed.
2. Support a persuasive stance with relevant details and examples.

Next Generation Science Standards

**The Earth and human activity standards relate to the weather-related hazard of flooding.*

- Grade 4: *Earth and Human Activity 4-ESS3-2*
- Grade 5: *Earth and Human Activity 5-ESS3-1*
- Grades 6-8: *Earth and Human Activity MS-ESS3-3*

Common Core ELA Standards

- Grade 5:
 - *Writing Text Types and Purposes 1. a, b, c, d*
 - *Writing Research to Build and Present Knowledge 7, 8*
- Grade 6, 7, 8:
 - *Writing Text Types and Purposes 1. a, b, d, e*
 - *Writing Research to Build and Present Knowledge 7, 8, 9.b*

Vocabulary:

Familiarity with these terms and concepts will enhance students' experience in the activity.

- **Pollution:** A substance or thing that when it enters an environment its presence has a harmful effect.
- **Gravity:** A force that attracts a body toward the center of the Earth.
- **Watershed:** The highest point that water can start to the lowest point where it collects. For example, from a mountain top to a lake or ocean.
- **Storm Drain:** A device that allows water to flow away from human developments and back into the watershed to prevent flooding of human communities.
- **Sustainability:** To keep something at a certain level. Minimize the use of a natural resource, so it can be kept or conserved to be used in the future.
- **Natural Resources:** Something that is not created by humans that is usually a finite material like clean water or forests.

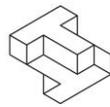
Materials:

- Writing materials (pencils/pens, paper, etc.)
- Stamps and envelopes to mail letters **or** send via email
- (Optional) Online search or visiting a library to do research

Procedure:

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1. Review the Down the Drain lab with students with a focus on the importance of keeping storm drains clear to prevent flooding and stopping trash from getting into the watershed. Discuss with students their ideas on other ways we can protect the watershed.
2. Brainstorm with students' to identify key community people or organizations who can help them protect the watershed. (Possible ideas include: the principal, family member, the local water board, city government, etc.)
3. Tell students they are going to write persuasive letters to encourage these people to help them protect the local watershed. Each letter will include the components of a persuasive essay and a letter. Some components could include:
 - Address a specific person or organization
 - State a specific problem related to the watershed
 - Provide examples or evidence as to why this is a problem
 - What action they would like this person to take to help solve the problem
 - Include a conclusion with a clear call to action and a way for this person to respond to this request (Example ideas for letters include: a letter to a parent to wash the family car at a carwash instead of the driveway; water board to implement an Adopt-a-drain program; a principal to support an environmental club at school)
4. Teach students how to use what they learned from the lab or classroom research to identify key information to use as support in their persuasive letter.
5. Provide appropriate scaffolding for formatting a persuasive letter.
6. Give students time to write and edit. The time depends on grade level and student experience with letter and persuasive writing. For students with some experience in both areas consider 60 minutes.
7. Send letters to the identified recipients through the postal system or by email.

Grade Level Modifications

6-8th Grade	<ul style="list-style-type: none">• Additional research is required to develop claims• Credible sources are required as part of the letter• Include quotes or paraphrases without plagiarism
7th Grade	<ul style="list-style-type: none">• Integrate counter-arguments
8th Grade	<ul style="list-style-type: none">• Acknowledge alternative or opposing claims

Extended Learning

- As part of the student's letters, include an invitation to a classroom forum on protecting the watershed. Use the forum to allow students and guests to talk about how to protect the local environment. Allow all participants to discuss current ways that they help and discuss new ways they can work together to protect the watershed.