

MIDDLE SCHOOL UNIT 6-8

HIDDEN CREEKS PROJECT

Factors that cause flooding, impacts on society and the environment, and how communities can work together to preserve the health of their waterways.

HIDDEN CREEKS project

INTRODUCTION

The Hidden Creeks Project brings Erie's unique history to life - the Mill Creek Flood of 1915. But there are other floods in the region, and each event is worth studying to understand how and why it happened, how residents and officials responded, and how we currently care for our streams and water.

Click on the underlined text for links to more resources



OBJECTIVES

1

Discover variables involved in floods, and the impact of floods

2

Explore how natural waterways filter the water, and society's impacts on waterways

3

Dive deeper into the daily role each of us play in the health of our water systems.

MILL CREEK FLOOD 1915

The Mill Creek Flood of 1915 was not the first flood in Erie, but it was the most devastating on record. Questions to consider:

- What were the causes of the flood?
- How did Mill Creek flow through the city prior to the flood?
- What do you think the health of the creek was prior to the flood?
- What were the effects of the flood?
- How did Erie respond the night of the flood? After the flood?
- How did the city choose to try to prevent future flooding?
- What impacts has that choice had on the environment? The city? Our water supply?



JOHNSTOWN FLOOD

Flooding happens on various levels and in varying regions. The Mill Creek Flood was a local flood; the Johnstown Flood of 1889 occurred in another region of Pennsylvania. Consider these questions when learning about the Johnstown Flood:

- What does that area of Pennsylvania look like topographically?
- How was the city of Johnstown situated by the waterway?
- How did the region respond to the flood after it had passed?
- How is the Johnstown Flood similar to the Mill Creek Flood when you look at the event itself? Different?
- How did Johnstown residents respond to the flood afterward in comparison to Erie residents to Mill Creek? What are the variables that affected their responses?



Team Build - Filtration System

In this activity, student groups of 2-3 will design and test a water filtration system. Encourage students to translate their experience to larger scale municipalities - how do you work under a budget? What do you do if resources are limited? What is an acceptable level of cleanliness for water?



Class Experience - Sum of the Parts

How are different parts of a waterway intertwined? Think about different parts of a moving water system and consider:

- How does what occurs upstream affect downstream?
- How does what is happening downstream affect upstream?
- How does the velocity of the water affect the waterway?
- How does the structure and development of streambanks affect the waterway?



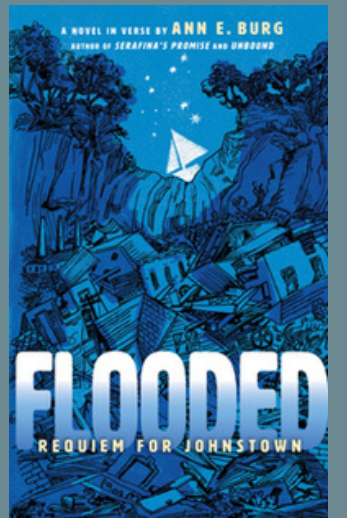


ADDITIONAL RESOURCES

- [Watershed - documentary on the Mill Creek Flood of 1915 - \(21:49\)](#).
- [Johnstown: America's Deadliest Flood - \(21:09\)](#).
- [Johnstown Flood - Past PA \(10:55\)](#).



by Nathan W. Cole



by Ann E. Burg



DEEPER THINKING

1

How can cities keep their storm water/natural waterways clean? How can they encourage prevention of pollution?

2

What are options for cities to have creeks/rivers run through them?

3

How does a city or town decide how people can use the water? Should there be limits or rules? If not, why? If so, what are some rules to consider?

QUESTIONS AND ADDITIONAL RESOURCES

Contact Kristen Currier
Erie County Conservation District
814-825-6403
kcurrier@erieconservation.com

