**Analyzing Community Issues via the Flint, MI Water Contamination Crisis**

**Student Worksheet**

**Community Issues in our Lives**

Have you been in a situation when city or state services were not provided well? (think about utilities, road and highway maintenance, school systems and school buildings, natural disaster cleanup, etc.) Briefly describe the problem and how it affected you, your family, or your community.

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How did you, your family, or your community try to solve this problem?

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What were the results when you, your family, or your community tried to solve the problem?

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**Focus for our Lesson**

We are going to focus on Flint, MI where their city water system is not working properly and so citizens have been exposed to lead and other toxins and bacteria. We are going to discuss (1) the reasons why this has happened, (2) the effects on the citizens, and (3) the strategies that are being used to solve the problem, and (4) how we can use this situation in Michigan to think about our own communities.

\*Please write down any new vocabulary words in your vocabulary journal. We will define some together in class, and some you will need to look up on your own.

Before we begin the lesson on the Flint Water Crisis, please jot down answers to the questions below about lead.

**Part 1: What do we know about lead?**

**What do you know about lead?**

* How does lead figure into your everyday life?
* What have you heard about lead in the news related to Flint, MI or another location in the United States?
* Why is lead in our water, air, and soil an important issue for Americans to think about?

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The Agency for Toxic Substances and Disease Registry is a federal public health agency of the U.S. Department of Health and Human Services. It describes lead in our environment in the United States like this:

Lead is a naturally occurring bluish-gray metal found in small amounts in the earth's crust. Lead can be found in all parts of our environment. Much of it comes from human activities including burning fossil fuels, mining, and manufacturing. Lead has many different uses. It is used in the production of batteries, ammunition, metal products (solder and pipes), and devices to shield X-rays. Because of health concerns, lead from gasoline, paints and ceramic products, caulking, and pipe solder has been dramatically reduced in recent years. <http://www.atsdr.cdc.gov/substances/toxsubstance.asp?toxid=22>

**Part 2: Lead in our drinking water**

**Sample:**

**Based on the video, is the water coming from the water plant contaminated with lead? Where does the lead in our water come from?**

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**In Part 2, answer questions with your partners in your small groups; you will be assigned to Group A or Group B. One person from each group will report out the answers to the class.**

**Group A read the section of the EPA website, ‘How Lead Gets into Drinking Water’**

**Questions:**

Thinking about the video and the section of the EPA website about how lead gets into the drinking water, answer the following questions:

1) What is corrosion and how can it affect water pipes?

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2)      How is the corrosion of water pipes usually prevented?

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3)      The year a house, school, or apartment building was built can make the quality of the drinking water better or worse.  Why is this the case?

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**Group B read the section of the EPA website, ‘Health Effects of Being Exposed to Drinking Water’**

**Questions:**

After reading the section of the EPA website about health effects of being exposed to lead in drinking water, answer the questions below:

1)      What effects can lead have on development in young children?

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2)      What effects can lead have on pregnant women and their unborn children?

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3)      What effects can lead have on adults?

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**Part 3: Flint, MI Water Crisis**

**In Part 3, answer questions with your partners in your small group; you will be assigned to your group and your group will be assigned a few questions from the list below. Write your answers on the chart paper at the front of the room labeled for your group.**

1. What decisions and mistakes were made by officials in the city of Flint, Michigan that made the water unsafe to drink and use for washing and cooking?

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1. Why did the city officials make these decisions about the water supply?

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1. How did the water supply get contaminated with lead and other poisons?

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1. What were the main causes of the water crisis in Flint, MI? (Identify at least 3)

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1. How did the water problem get identified?

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1. The decisions to change the water supply affected many things in Flint, MI.  Below are some of the ways the city and its residents were affected.  Identify two effects for each category below.
* Water quality

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* Health of the residents

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* Economic issues in the city

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* The way the residents view their local and state government

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1. What strategies were used to address the water issues in Flint, MI? Which were helpful and which were not?

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 **Part 4: Strategies**

Why is lead in our water, air, and soil an important issue for Americans to think about?

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If your community were to face a problem like Flint’s water crisis, or one similar to it, brainstorm good approaches to fix the problem.

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**HW:**

**Expand on 2 strategies from the class brainstorm or from your own ideas and explain why they are good approaches using the Community Problem Strategy Planning sheet.**

To get additional ideas, research Madison, WI and how that city handled a similar water issue.