

Environmental Science

Lesson: April 10, 2020

Learning Target:

Students will explore the costs of pollution with toxic spills.

Let's Get Started:

1. What is a toxic chemical?
2. Where is Times Beach, Missouri?
3. What does EPA stand for and what do they do?



Jump start answer key:

1. Any substance that harms the environment and other organisms or is hazardous to your health.
2. 17 miles South of St. Louis, and 2 miles East of Eureka, Missouri.
3. United States Environmental Protection Agency. They work with the legislative groups nationally to ensure clean drinking water, air, and common places.
 - a. Can also mention in charge of waste management.
 - b. Regulates businesses to protect Americans' health.

Lesson Activity:

Directions:

Watch the video about the Times Beach Missouri contamination.

Then answer the following questions on the same page as the starter questions:

Link: Watch Video Here: [Times Beach](#)

Application/practice:

After watching the video answer the following questions:

1. What are some of the health concerns connected to Dioxin?
2. What connection does the Times Beach contamination have with the Vietnam War?
3. Many residents of Times Beach refused to leave for a long time. Would have stayed?
4. Research the cleanup measures that were taken in Times Beach. What did the EPA do? Was the cleanup successful?
5. How confident in the cleanup are you? Would you visit the park that now marks the location? Discuss your reasoning behind your answers.

Answer key:

1. Deformity, cancer, reproductive issues, developmental problems
2. Dioxin is a chemical component of Agent Orange, which was used for chemical warfare in the Vietnam War.
3. Answers will vary.
4. People were evacuated and buildings were burned and buried. According to the EPA the area is now once again safe.
5. Answers will vary.

More practice

Select the link from the bottom of the page, once you have seen the short clip you will be researching one superfund location. Write about one location from the video that interests you.

Include:

- When/where it happened?
- What caused the problem?
- How the contamination occurred?
- What were the effects on the environment and the community?
- Was there a cleanup effort (and if so was it successful)?
- Was there any kind of compensation for the people who were affected?

Link: [These types of places are more common than you might think.](#)

Answer key:

Answers will vary. Make sure you are using complete sentences. You do not need more than a paragraph if you are concise in your analysis.

Additional Practice

If you need to review over the concepts again of how local clean up efforts work and how the superfund program affects your state here is the National Geographic's project that organized all current and old superfund site.

[What superfund location is close to you?](#)