

**Increasing**  
Student Engagement  
with Local  
**Social Justice**  
Case  
Studies

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STEM CIVICS  
CHARTER SCHOOL



# The Goal

To increase student engagement in an online platform by incorporating local social justice case studies.



# Today's Agenda

How to find and choose a case study



How to break the case study  
down into manageable parts



How to design a culminating project



Brainstorming breakout

# Please rename Yourself

- Engineering/ Science – 1
- Math - 2
- English/ History – 3

Ex. 1Jennifer.Elton

# Finding Local Case Studies

## News

- Local newspaper
- [Newsela](#)

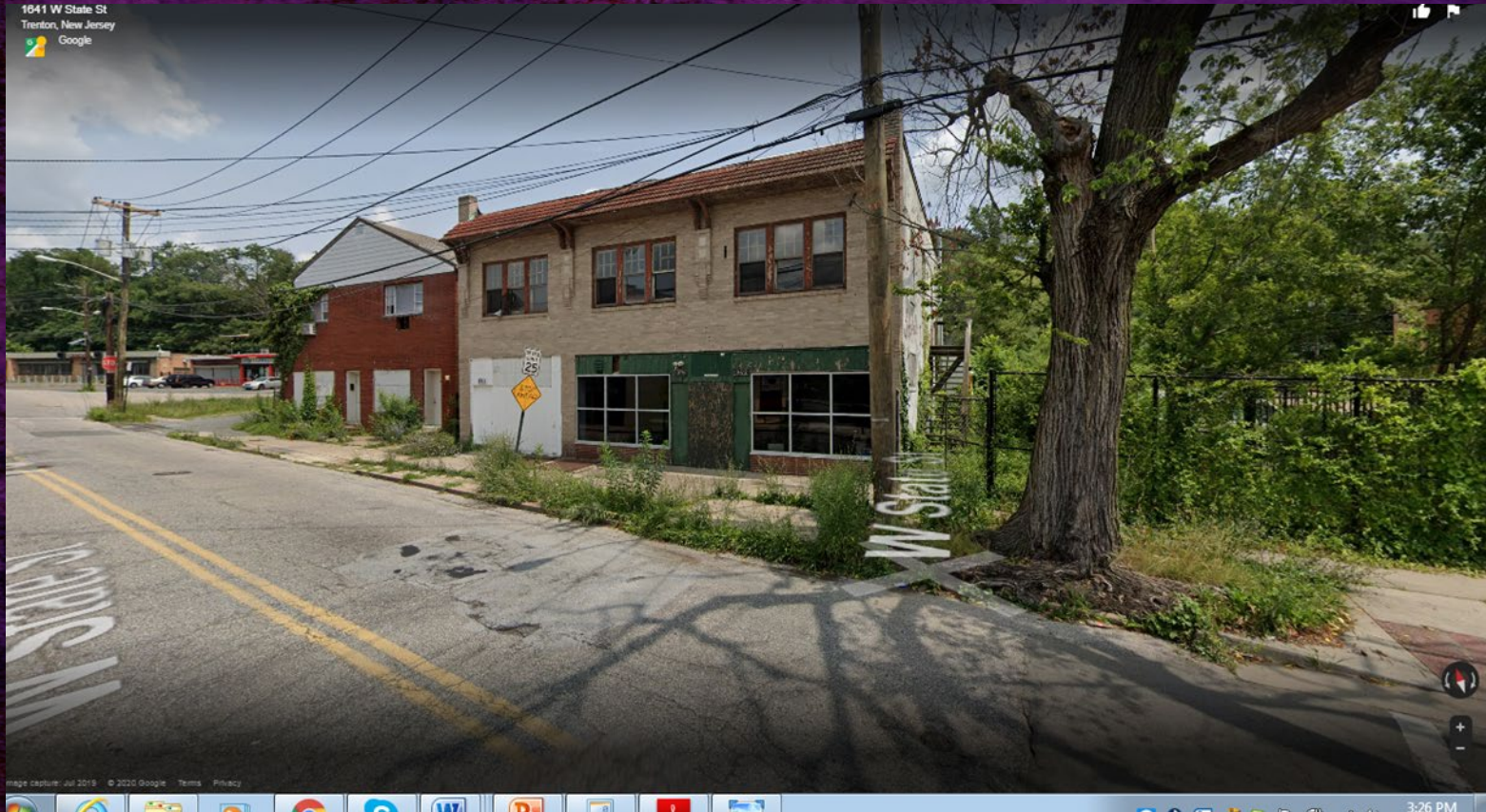
## Government Websites

- [State's DEP Office of Environmental Justice](#)
- [State's Office of Attorney General](#)
- [EJSCREEN](#)

## Justice Organizations

- [EJAtlas](#)
- Local Justice Organization – [Isles](#)

# Schofield Complaint



# Breaking the case study down

**Read:** Have students read the study with guiding questions and then summarize it in their own words

## Research:

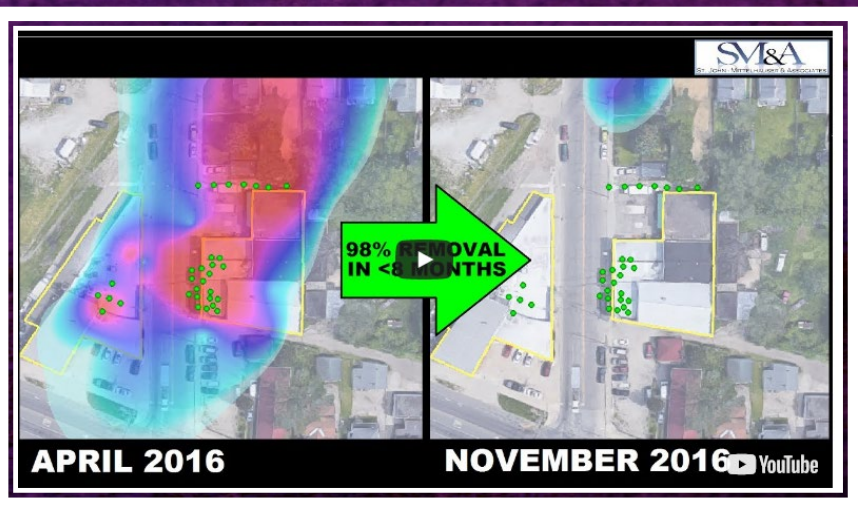
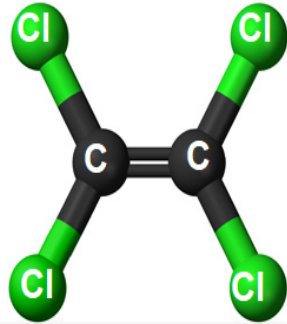
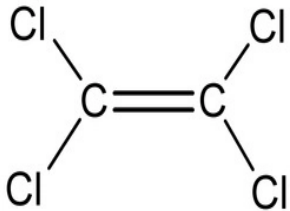
Have students research one or two aspects of the case

## Recommend:

Have students research solutions to the problem and make a recommendation for correcting the issue

### Tetrachloroethylene Structure

BYJU'S  
The Learning App



# Designing a Project for an Online Environment

## “Build” it along the way

- Have each part due on a different day so students don't get overwhelmed

## Set clear expectations

- Make sure the due dates and rubrics are clear (could have a Google form that asks specific questions about the rubric)

## Make use of online platforms

- Have students make a video on Flipgrid or use Screen-cast-omatic to make their own presentation.



Trenton, are you up to date with what's happening in your neighborhood? Well if you haven't heard yet, there seems to be a leak at the Schofield Cleaners. The leak releases a dangerous chemical that contaminates the water in your home.

We are aware that the dry cleaner had a chance to get their tanks fixed due to leaking tanks contaminating water. Instead they ignored the situation of fixing the leak on the tanks. In 2017 they were asked to remediate the property and they were fined for \$105,204. This led them to have 3 penalties or chargers for not listening in the first place.

Tetrachloroethene or also known as PERC is what's been contaminating your house water if you didn't know. It is a manufactured and colorless chemical. It is also a non-inflammable liquid (Paul Cochrane). It is used as a dry cleaning agent and metal degreasing solvent (Agency for Toxic Substances and Disease Registry). When air is inhaled, it is taken into the lungs and passed down into our blood cells which flow to all parts of the body meaning if inhaling PERC this will damage your body. PERC can be exhaled without causing damage but sometimes it can be stored in the body (New York State Department of Health). Here are three health effects of long term exposure. Liver and kidney damage can occur if it is inhaled over a long period of time. It can also cause cancer in animals and humans. Workers that are exposed to it can experience memory loss and confusion (Paul Cochrane). "If you think your health has been affected by exposure to perchloroethylene, contact your health care professional.

In order to clean the Schofield Cleaners incident workers are to dig out the leaking tank and then put it somewhere far. They will also create extraction wells to monitor the spread of the pollution and see what can be done. The soil that was around the leaking tank is no longer normal soil and is then considered to be hazardous waste. Also they see how they should clean the water and one way they clean up the water around the site is that they use vegetable oil to clean the contamination the water has. This is an example of biological remediation. The vegetable oil is released into the water pipes and throughout time it starts to clean the water. If the Tetrachloroethene doesn't get cleaned around Schofield Cleaners then the soil will contaminate water around the area and even the Delaware River which can also kill people. This cleaning process is called remediation.

The governor has to take actions to clean Schofield Cleaners. This is a very big situation and you don't ever hear anything from the state in order to take action toward this big problem. They have to think about you guys who live around the area because this might



# Brainstorming breakout

## Questions to Discuss:

1

What are local issues that could be used as a case study?

2

What features of these issues are particularly related to your content area?

3

What type of project could you assign that would incorporate the case study?

Questions?

**Thank You!**

**Photos courtesy of Dr. Leigh Byron**