



ArcGIS® ONLINE COMPETITION

for US High School and Middle School Students

Visit go.esri.com/us-ago-comp

Contact K12Schools@esri.com



2019 winners
and their teachers

A Story Map

2016 Legionnaires' Disease Outbreak in Hopkins, MN

Legionnaires' disease: The real illness requires a half mile radius of each victim. This shows us the area to look for potential sources.

Cooling Towers

Once we knew where to look for sources, we can use satellite to locate all of the cooling towers in and near the scope of the victims. The color-coded map shows the cooling towers that should be responsible for the outbreak.

Finding the Source

After we have decided where to test for the disease, the next step is to go out into the field and take samples from each of the cooling towers. In Hopkins, they took samples from the owners and sent them to a lab in New York for testing. On October 12, 2016, the results came back, and the source was found to be the Citrus Systems cooling tower, pictured on the map as a green dot. Later investigation revealed that the cooling victims worked near the Citrus Systems cooling tower, which led to them falling ill.

Future of Epidemiology

Quarries of Monroe County, Michigan

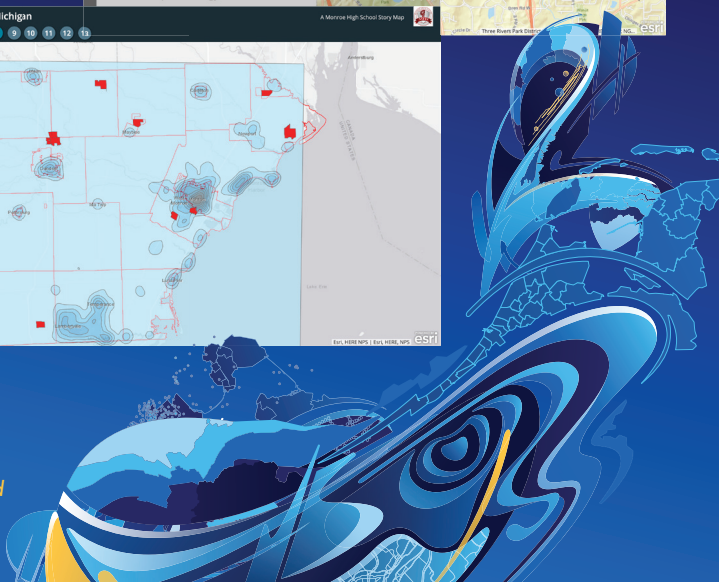
Monroe Population vs Quarry Location

This web map displays the quarry density of Monroe County compared to the location of Quarries in Monroe County.

I created the "Monroe Rural Population Density" layer through the use of ArcGIS Online's geoprocessing. This layer represents different densities of population by breaking them down into ten classes. Class one represents low density areas, while class ten represents high-density areas. Click around the map to view the quarry density of the area. For a thorough explanation of how I performed this geoprocessing, check the form titled "Map" by following this map, we can begin to pick up on possible correlations between quarry location and population density.

You may have already observed that the majority of quarries reside around the centers of highly populated areas. I believe the reason for this is twofold: for one, quarries in high-population areas are at the heart of economic interactivity and industry, they need the materials that come from quarries.

Monroe, Michigan Quarries





A National Competition Hosted by Esri Highlighting Student Geographic Information System Projects

Important details about the competition:

- Students research a topic of choice about their state and create a story map about it.
- The competition is open to public, nonpublic, and home school settings in grades 4–12 in participating states.
- US state leadership teams must apply for students to participate.
- All US states plus Washington, DC; all US territories; and the Department of Defense Education Activity (DoDEA) are eligible to submit a state leadership team application.
- Students can participate in only one project, working on their own or in a team of two.
- Students can work independent of their school activities, but entries are routed through their school.
- Cash awards are available for distribution by each participating state.
- Grand prize includes a trip to the Esri User Conference in San Diego, California!

Competition Details: go.esri.com/us-ago-comp

Copyright © 2020 Esri. All rights reserved. Esri, the Esri globe logo, The Science of Where, ArcGIS, @esri.com, and esri.com are trademarks, service marks, or registered marks of Esri in the United States, the European Community, or certain other jurisdictions. Other companies and products or services mentioned herein may be trademarks, service marks, or registered marks of their respective mark owners.

173644 G868736

