



# MICHIGANVIEW 2022 - 2023

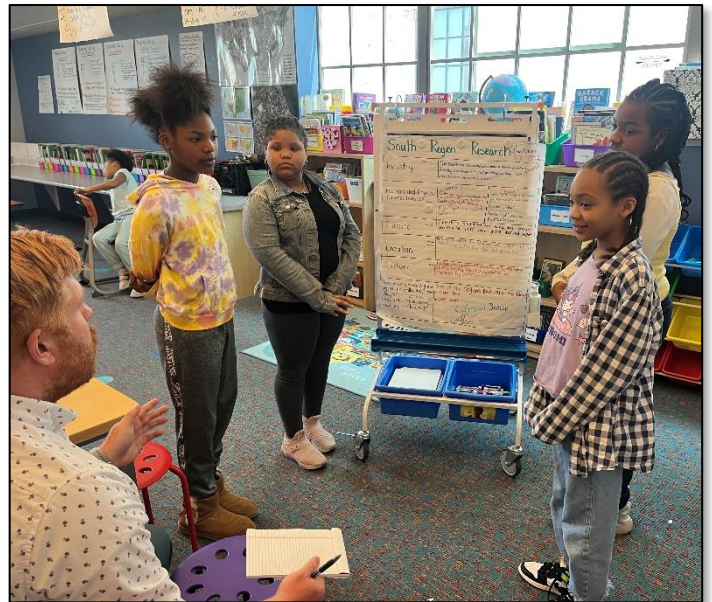
**AmericaView**<sup>SM</sup>  
Empowering Earth Observation Education  
[americaview.org](http://americaview.org)

## MICHIGANVIEW 2022 - 2023 ACTIVITIES

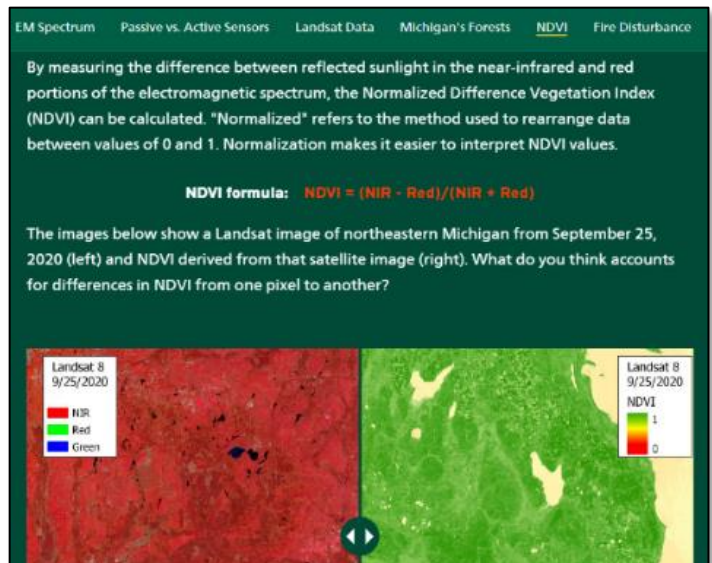
As a member of the AmericaView consortium, MichiganView strives to promote remote sensing science within the state of Michigan. MichiganView's primary focus is to develop tools and activities for K-12 students. Educational content created for K-12 students is co-developed with educational professionals to ensure alignment with state education standards.

In the 2022-2023 grant year, MichiganView developed tools designed to help meet specific social studies and science content expectations for upper elementary, middle school, and high school students. MichiganView tools are created with accessibility in mind, so platforms such as ESRI StoryMaps are typically used to eliminate the need for specialized software. For example, a StoryMap was created to teach 6<sup>th</sup> grade students how different geographic regions are susceptible to different kinds of natural disasters. Students analyzed Landsat imagery showing pre- and post-disaster images and were tasked with designing plans to help mitigate the effects of future disasters. For students at the high school level, a StoryMap was created to illustrate how human activities are modifying Earth systems using the example of forests in northern Michigan. The tool enabled students to investigate changes in NDVI to assess areas that have been disturbed by timber harvesting, fire, or non-native insect infestations.

In addition to creating content for use in traditional classroom settings, MichiganView also supervised the Remote Sensing competition for several regions of the Michigan Science Olympiad. Science Olympiad is a national organization that organizes STEM related tournaments around the country. The Remote Sensing competition is run for high school level students, and includes image interpretation, data analysis, and physics to test students understanding of remote sensing science. In addition to creating exams for the regional events, MichiganView conducted workshops to help competitors prepare for state and national competitions.



*Mark Murray Elementary School students present results of their research on regions of the United States. Students used an ESRI StoryMap to assess how different regions appear in satellite*



*A screenshot of an ESRI StoryMap created for Michigan high school students. The tool focuses on Michigan's forest resources and introduces students to basic remote sensing principles.*

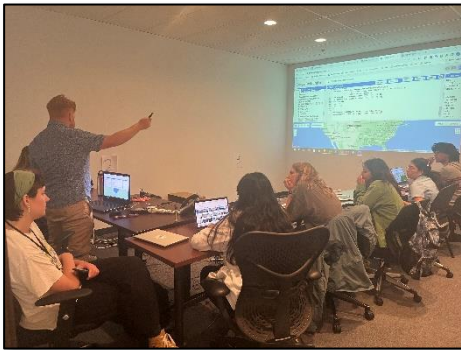
MichiganView is a member of the AmericaView Consortium, a nationally coordinated network of academic, agency, non-profit, and industry partners and cooperators that share the vision of promoting and supporting the use of remote sensing data and technology within each state. AmericaView is funded by USGS grant agreement G18AP00077.

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## BENEFITS TO MICHIGAN

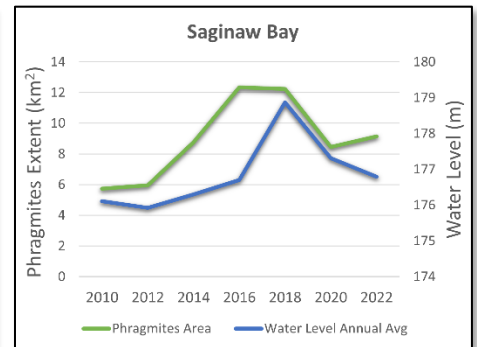
- MichiganView creates educational materials that adhere to standards and performance expectations set by the Michigan Department of Education.
- Content developed by MichiganView is created on easily accessible, browser-based platforms such as ESRI StoryMaps and Google Earth Engine.
- MichiganView leverages free and publicly available imagery, such as data from the Landsat mission, in its tools and tutorials.
- MichiganView provides educational materials and tutorials for undergraduate students who do not have access to coursework in remote sensing or geospatial technologies.



Students working through a Google Earth Engine tutorial developed by MichiganView.



Students collecting data in a coastal wetland during a MichiganView workshop.



Graph comparing water level to invasive growth created during a MichiganView event.

## MICHIGANVIEW CONSORTIUM MEMBERSHIP



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