



MICHIGANVIEW 2021 - 2022

AmericaViewSM
Empowering Earth Observation Education
americaview.org

MICHIGANVIEW 2021 - 2022 ACTIVITIES

As part of the AmericaView network, MichiganView's primary goal is to promote the inclusion of remote sensing and geospatial technologies in Michigan classrooms. This is achieved through the creation of tools and activities that augment science and social studies curricula at a variety of educational levels. At the K-12 level, MichiganView works with educators to co-develop materials that assist in meeting content expectations as defined by the Michigan Department of Education (MDE). By using MDE standards as a framework for lesson development and curriculum augmentation, MichiganView is able to create products that can be utilized by schools throughout the state of Michigan. At the college level, MichiganView develops activities and tutorials that provide an introduction to remote sensing for students whose major area of study does not include it in standard coursework.






In the 2021-2022 grant year, MichiganView created new tools that were included in social studies content for 3rd and 4th grade students. 3rd graders used a web-app to assess how geographic tools, such as remote sensing, can be used to study the earth. 4th graders used an interactive online tool to learn how human activities can impact the environment. The tool integrated a variety of satellite images to assess positive and negative impacts of these activities. MichiganView also developed materials and conducted trainings for undergraduate environmental science students taking part in an intensive summer course focused on Great Lakes science and conducted a seminar on thermal imaging for community college students.

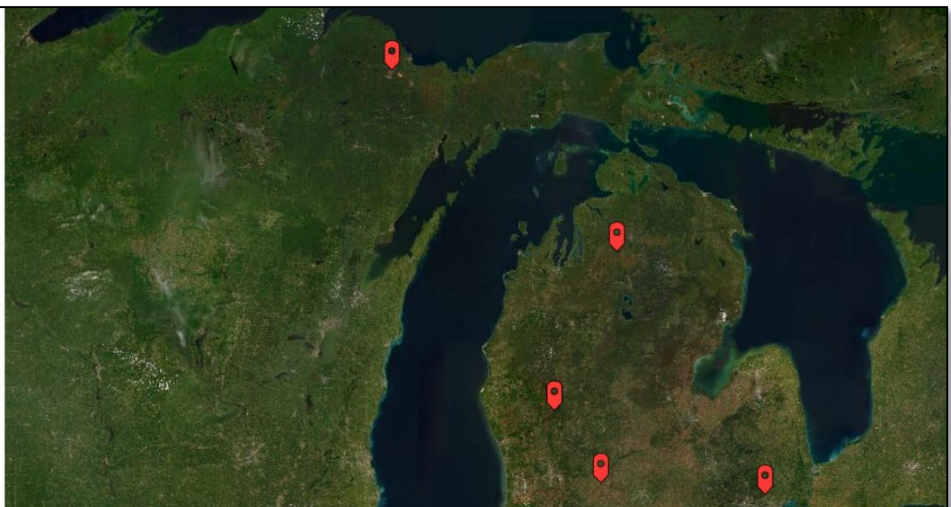


Example of a land cover map of Cheboygan, MI created with Google Earth Engine by a student at a MichiganView workshop.



A 4th grade student assessing land cover change using Landsat imagery on an interactive Smart Board.

	Forestry Michigan was once covered almost entirely by forest. Many of these forests were cleared for farms and cities, but...
	Mining Michigan's Upper Peninsula has been an important mining center for almost 200 years. In the 1800s, copper mining...
	Agriculture Agriculture, the practice of cultivating plants for harvest, is an important aspect of Michigan's economy. Michigan...
	Dams In Michigan, dams are used for a variety of reasons, such as controlling floods. The Hardy Dam in the western part of...
	Urbanization As populations increase, people need more places to live. The suburbs outside of Detroit have been growing for...



Screenshot from an ESRI StoryMap developed by MichiganView and used in 4th grade classrooms. Students used the tool to explore human-environment interactions throughout the state and around the country. The interactive module is available online at: <https://arcg.is/1jSrns0>.

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.

AmericaViewSM
Empowering Earth Observation Education
americaview.org

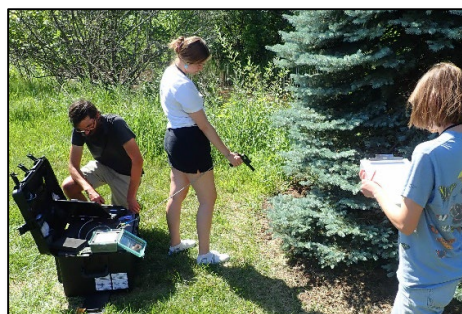
AmericaView Website:
www.AmericaView.org
Christopher McGinty, Executive Director:
chris.mcginty@americaview.org
Lisa Wirth, Program Director:
lisa.wirth@americaview.org
John McGee, Board Chair:
jmcg@vt.edu

BENEFITS TO MICHIGAN

- MichiganView uses freely accessible, web-based tools for most of its outreach work in order to reach broader audiences than would be possible with desktop software. ESRI Story Maps are typically used for K-12 activities, while advanced tools, such as Google Earth Engine, are used for students with more technical skills.
- MichiganView utilizes publicly available imagery, such as Landsat, when creating lab exercises and tutorials to ensure interested students can access additional data without issues.
- Whenever possible, hands-on, field-based components are incorporated into MichiganView activities to provide students with knowledge of how remote sensing can be applied to real world problems.
- MichiganView provides remote sensing expertise to organizations such as the Michigan Science Olympiad, which hosts dozens of science-based competitions to inspire middle and high school students to pursue STEM careers.



Community college students posing for a picture with a thermal camera during a remote sensing lecture.



Undergraduate students using a handheld radiometer to measure vegetation spectra.

MICHIGANVIEW CONSORTIUM MEMBERSHIP



MichiganView Principal Investigator:

Dr. Nancy French

Michigan Tech Research Institute

734-913-6844

nhfrench@mtu.edu



<http://www.michiganview.org>