



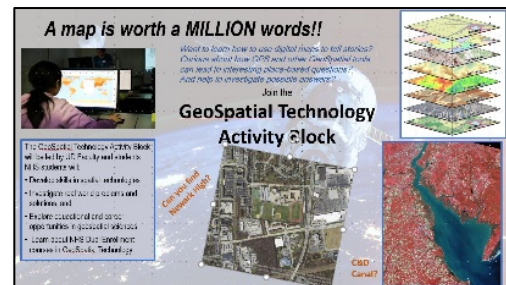
# DELAWARE VIEW 2019 - 2020



## DELAWARE VIEW 2019 - 2020 ACTIVITIES

### Activity One. Geospatial Activity Block

Tracy DeLiberty (Delaware View Lead Delegate) and Mary Schorse (Delaware Center for Geographic Education Associate Director) taught a Geospatial Activity Block with Newark High School (NHS). NHS is one of the most diverse high schools in the state with over 60% of its student population representing minority populations. The Activity Block included 11 students who represented both an array of grade levels (9-11) and ethnic backgrounds and participated in the weekly class which ran from November 2019 until March 2020 when the COV-19 pandemic shutdown the Delaware schools. We recruited 4 University of Delaware undergraduate students to assist with classroom delivery and provide an almost one to one teacher student ratio. During the 5+ months of instruction, we introduced students to the geospatial technologies of GIS, GPS, and remote sensing through mini lectures, demonstrations, videos, and hands on use with a GPS unit, viewing an array of imagery from GOES, Landsat, and high resolution aerial photography, and making maps in ArcGIS Online.



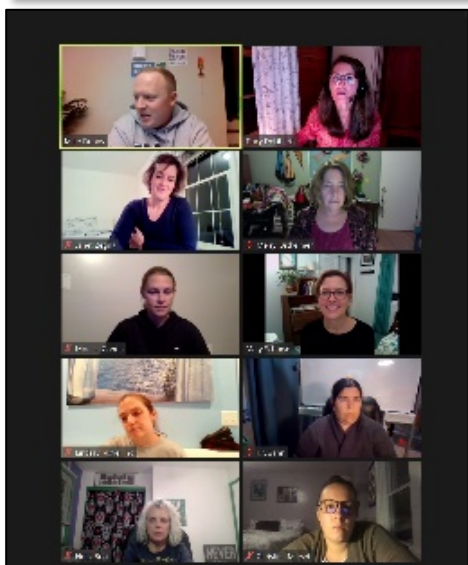
*Postcard created to advertise Geospatial Activity Block to Newark High School students.*



*Tracy DeLiberty demonstrating how a satellite revolves around the Earth with one student assisting by holding the globe.*

### Thinking Geographically Using Geospatial Data to Encourage Exploration and Ask Probing Questions about Place

### Activity Two. K-12 Teachers Seminar



*K-12 teachers who participated in the Thinking Geographically Seminar.*

Tracy DeLiberty and Mary Schorse teamed up as seminar leaders for a geospatially-focused seminar with K-12 teachers. This geospatial seminar worked with 9 teachers to develop their understanding of how to create and access geospatial data as a tool for disciplinary instruction. Teachers become familiar with the latest geospatial technologies and learned how to identify and analyze geospatial datasets in order to ask important place-based questions. Each teacher produced a curriculum unit at the conclusion of the seminar. A 4<sup>th</sup> grade English as a Second Language teacher wrote a unit titled *Understanding Why We Left Home* using place based interviews, maps, and imagery to identify the push/pull facts of immigration families face in the choice of moving to Delaware. As part of an AP Environmental Science course, a 10<sup>th</sup> grade teacher focused on land use change in Delaware over the last 10 years relying on high resolution imagery. A 9<sup>th</sup> grade Civics teacher created a unit which utilized voter data and election outcomes.

These activities contribute to the USGA Objective 4 Advancing Education and Training by supporting remote sensing science instruction in K-12 grades.

Delaware View 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 DELAWARE

- **12 Newark High School students** exposed to geospatial technologies and the usefulness of these technologies to examine our world's challenging problems. We focused on the problems of plastic trash by collecting GPS locations of trash on the school grounds, and through student conducted GIS analysis found how plastic trash is transported by waterways to the giant ocean gyres.
- **9 K-12 Teachers** learned to think geographically by asking placed-based questions. Each teacher wrote a curriculum unit to support their instruction. One example is 2<sup>nd</sup> grade teacher wrote two placed based surveys called *Windows to Nature* and *Backyard Walk*. This data was mapped and explored in the classroom.
- **4 University of Delaware undergraduates** participated in the Geospatial Activity Block at Newark High School. They worked 1-on-1 with students to trouble shoot technology problems, guide steps through geographical lessons, and learn the patience and persistence required for effective and compassionate teaching.
- **25+ 4<sup>th</sup> and 5<sup>th</sup> grade students at Marshall Elementary School** were introduced to GPS, GIS and remote sensing. Students looked at aerial photography and Landsat images of their school and performed several ESRI GeoInquiries.
- **1 Geography Masters student** completed degree May 2020, and employed with Sonoma Technology October 2020.



Tracy DeLiberty talking with Newark High School Instructor coordinating the Activity Block.



First virtual session of the K-12 Teachers Seminar.

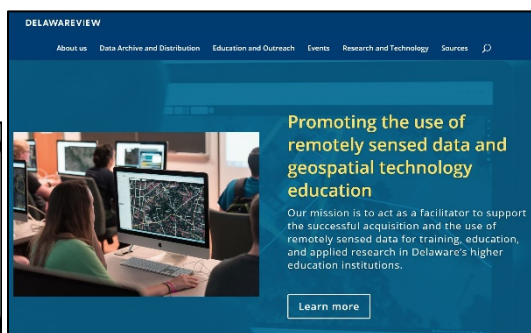
## DELAWARE VIEW CONSORTIUM MEMBERSHIP



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