Safe Route to School

Summary

Students will create a map of the current dangerous routes to school and a safe suggestion. Students will write a persuasive letter to be read at a city council meeting in an attempt to have the route built for the neighborhood that needs it.

Time Frame

4 class periods of 60 minutes each

Group Size

Pairs

Life Skills

Thinking & Reasoning, Communication, Character, Social & Civic Responsibility, Employability

Materials

GPS Units for Pairs Waypoints pre-marked Candy or other treasure to find Access to computer lab ArcMap software DNR Garmin/drivers Community partner(s)

Background for Teachers

You need to know how do the following with a GPS: mark waypoints, find waypoints, make tracks, upload data from GPS to computer. You should find this information with your GPS unit. Knowledge of the ArcMap software and how to navigate it is essential if you do not have a community partner that can help you through it.

Student Prior Knowledge

Students need to have a brief lesson on proper handling and care of a GPS unit. They also need to be informed, if not a part of planning your community project.

Intended Learning Outcomes

Students will know how to use technology to present their written work to effectively persuade an audience to listen to their ideas. Students will value contributing to their community in a way that makes a difference.

Instructional Procedures

Day 1.Students will be given a brief overview of proper handling of a GPS: how to carry it, how to transfer it from student to student, etc.Put students into teams of two or three to work throughout this entire activity. 2. Have up to three waypoints marked around your school prior to meeting with the students. Teach the students how to input a waypoint manually using the coordinates you marked earlier. Once they have input the data, take them outside to see if they can find the correct locations. Day 2.Teach students to mark a waypoint. Then give each student a candy or other object to hide around campus and mark a waypoint. Once each student has marked their point have the teams switch GPS and see if they can find the hidden objects. Day 3. Go out into the community to mark the waypoints and make the tracks for your project. Have your community helper come along if it is appropriate to do so. (We marked waypoints and made tracks showing the dangerous routes children have to take to get to school and the safe route we would like to see created for students and

community members.) Day 4. Have your community partner come in and talk about GIS and how it is used in the real world, how it applies to their job, how it can help with many aspects of life. Have the partner help the students to create their own map using the ArcMap software. Add any appropriate layers to the maps that may be needed. Day 5 and 6: Have the students write a persuasive letter to city officials explaining the need for a safe route to school for all students. Have students take this through the writing process so that they are appropriate for their audience.Combine the letters with copies of the student maps and send them to the proper community leaders.

Extensions

Have your class appeal to be on the actual agenda of a City/County Council meeting to present your issue and your ideas. Give students a copy of the ArcExplorer to experiment with at home. Allow students to create a project using the software that will impact the future students/community members.

Assessment Plan

Students will be assessed throughout the project through participation and engagement in the learning activities. Students will be assessed on their final writing projects and map presentations.

Rubrics

Safe Route Persuasive Letter

Authors

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