Earth Day STEMcoding Module Integrates JavaScript into the High School Curriculum BRETT SCHEIB, KATELYN BUCKLES, University of Mount Union — Within the past few years, computer science has developed into a versatile skill that has become essential in a variety of fields. As such, it is no surprise that high school and undergraduate students are increasingly incorporating computer programming and data analysis into the classroom. In order to facilitate the smooth integration of computer science into courses throughout the country, modules must be developed to teach these skills to both students and instructors without a strong programming background. This activity aims to help high school students utilize computer coding skills to analyze climate change. Specifically, the Earth Day module allows students to collect climate data from their own locations and develop a simulation for global warming in JavaScript. Students also model random temperature variability and manipulate data in a spreadsheet program. To ensure that an unexperienced audience can complete the activity, several educational resources are provided for instructors, including code solutions, guided questions, and video walkthroughs. This module has been recently accepted to be posted on the Hour of Code website.

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