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## **BPS student named finalist in nation's premier STEM competition for middle schoolers**

Viera, FL – A Brevard Public Schools student has made it to the top 30 in the 2020 Broadcom MASTERS®, the nation's premier STEM competition for middle school students. Amelia Curran, now a 9<sup>th</sup> grader attending Melbourne High School, earned this distinction for her science research work on the efficiencies of biofuels as an eighth grader at Hoover Middle School last year.

Curran will be one of four finalists representing the state of Florida when she competes in the first ever Virtual Broadcom MASTERS from October 16-21, participating in team challenges in addition to being judged on her science research project. The finalists include 14 girls and 16 boys covering 16 states and representing 29 schools. All will receive a \$500 cash award and compete for more than \$100,000 in prizes.

"We are so proud of Amelia for this outstanding accomplishment and excited to have her represent Brevard Public Schools at the national level," said BPS Superintendent Dr. Mark Mullins. "Her project represents the high caliber of critical thinking and work taking place in our middle schools as part of our science research and STEM programs."

Amelia learned about car engines and fuels from her dad, a retired race car driver. It was this education and interest which compelled her to pursue her research in biofuel efficiency. Her project, titled: "Comparing the Efficiency, Free Fatty Acid Percentage, and Carbon Dioxide Emissions of Waste Vegetable Oil and Ethiopian Mustard (*Brassica carinata*) Biodiesels," made the case for biofuels as a possible alternative fuel for cars and trucks.

"Most cars run on gasoline. Along with emissions from other fossil fuels, these are the main drivers of human-caused climate change," said Curran. "We must take action to reduce our carbon footprint on this Earth."

Biofuels are made with materials from plants and other organisms. In some instances, burning them emits less carbon dioxide than regular gasoline. Using biofuels can also avoid fugitive emissions and other pollution from mining or drilling. Amelia wanted to compare homemade biofuels from two plant-based oils, Ethiopian mustard, an oilseed crop, and waste vegetable oil used in cooking. For more details on her project, visit her finalist overview at:

<https://www.societyforscience.org/broadcom-masters/2020-finalists/>

With the generous support of title sponsor and partner, Broadcom Foundation, Society for Science & the Public has been running Broadcom MASTERS® (Math, Applied Science, Technology, and Engineering for Rising Stars) since 2010.

The Broadcom MASTERS is the only middle school STEM competition that leverages “Society-affiliated” science fairs as a crucial component of the STEM talent pipeline. In 2020, any 6th, 7th, or 8th grade student who registered to compete in a Society-affiliated science fair was eligible to enter the Broadcom MASTERS.

For more information about the competition, visit: <https://www.societyforscience.org/broadcom-masters/>

