

Digital STEM Demonstration showcases student-centered learning

Students in Grades 4-8 explore STEM-related topics in optional project

Curiosity, innovation and discovery are on display in the 2020 Spring Digital STEM Demonstration at Everett Public Schools. Typically, each spring the district hosts an in-person STEM competition for students in Grades 4-8. This year, due to school building closures, the district instead launched a digital project and demonstration.

In this optional, self-guided, non-competitive opportunity, students were asked to focus on one of three STEM-related projects including Experiment, Research Project or Engineering Design. Participants were further encouraged to submit a digital presentation of their project to be posted to the Digital STEM Demonstration website and shared with their peers, our schools and the community.

About fifty innovative projects were undertaken and submitted by participating students. As an example, Evergreen Middle School eighth grader Aidan Witters developed an Engineering Design project titled “Ion Propelled Airship” in which he explored how cargo can be transported at high speeds without burning fossil fuels.



Ion Propelled Airship balloon and motor experimentation.



Comparing growth rate of bulbs vs. seeds.

Jefferson Elementary fifth graders Bianca Larimer and Paisley Latkins submitted an Experimental Project titled “Do bulbs or seeds grow faster?” The two planted flower bulbs and seeds and monitored their growth over time then compared their hypothesis to their data results.

Penny Creek Elementary fourth-grader Emi Day’s Experimental Project asked the question “How Does the Amount of Water Change the Strength of Bioplastic?” She said she chose to experiment with plastics because she “wanted to know how plastics are made and how to make it stronger.” Day explained that the project was fun, “made her think hard” and, “stretched her brain.” She said she also learned “about how data and math help science” and she “saw how math can be useful in real-life situations.”

The 2020 Spring Digital STEM Demonstration offered students the opportunity to be creative, develop an understanding of science and engineering and build 21st Century Skills. In addition to skill-building, participating students developed self-reliance, organizational skills and productive work habits.



Experimenting with water and plastics.

“Student-directed projects such as STEM competition projects are so valuable to helping students identify their interests and passion. Students’ projects featured at this year’s online Digital STEM Demonstration show the creativity and innovation of our students,” explained Assistant Superintendent of Curriculum, Assessment and Career Connected Learning, Dana Riley Black, Ph.D.

To acknowledge and celebrate student efforts on their projects, the Everett Public Schools Foundation will mail a special recognition to each participant.

Student projects may be viewed at <https://bit.ly/2020DigitalStem>.

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For more information:

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