

## **CLIMATE CHANGE, ENERGY, AND ENVIRONMENT COMMISSION**

**c/o Department of Environmental Services  
2100 Clarendon Blvd., Suite 705  
Arlington, VA 22201**

July 2, 2024

Honorable Libby Garvey, Chair  
Arlington County Board  
2100 Clarendon Blvd., Suite 300  
Arlington VA 22201

Dear Chair Garvey:

The Climate Change, Energy, and Environment Commission (C2E2) has reviewed the Virginia Standards of Learning (VSOL) and the Arlington Public Schools (APS) Curriculum, including the Science standards, at the elementary, middle school, and high school levels, looking for references to climate change. C2E2 is concerned that the current version of the APS academic curriculum does not place sufficient emphasis on the very important ongoing changes to the global climate caused by increasing levels of greenhouse gasses in the atmosphere. C2E2 recommends that APS substantially increase the extent to which various aspects of climate change, including mitigation and adaptation strategies, are taught at all levels of instruction.

Climate change has already begun to have a major impact on the way humans live on this planet, and that impact will increase in the future. Climate change will be the greatest challenge to be faced by the generation of students that are now in APS. However, we did not find anywhere in the VSOL or the APS Curriculum a plain and clear statement that the significant ongoing changes to the global climate are caused primarily by greenhouse gas emissions, which in turn are caused by the human burning of fossil fuels. These points are fundamental to an accurate understanding of the ongoing climate change phenomenon, and any serious discussion of the subject would be incomplete without them.

We also have several other specific recommendations regarding how a greater emphasis on climate change should be integrated into the current APS curriculum:

- Climate science and literacy should serve as the basis for further instruction. That is, instruction should begin with how carbon dioxide and other

greenhouse gasses trap heat in the earth's atmosphere, and with the hard data that shows how the concentration of these gasses has been increasing since the industrial revolution. Student instruction should be clear that climate change is not something one chooses to "believe in," but instead that it is fact based in scientific knowledge and measurement. Numerous reputable resources can be relied upon for this instruction.<sup>1</sup>

- Climate change should be taught in terms of systems and policies, not just individual actions. While the current curriculum suggests actions that individuals can take, such as recycling, the curriculum should also discuss how humans collectively are releasing large amounts of greenhouse gasses into the atmosphere, how humans collectively can reduce such emissions, and how humans collectively can adapt to and reduce the impact of climate change.
- The subject of climate change can and should be integrated into the entire academic curriculum, not just as part of science units, but also as part of other units, such as mathematics and social studies. For example, in mathematics, changes in CO<sub>2</sub> concentrations and global temperatures can be used to demonstrate the concept of data graphing. In social studies, climate change can be cited as a threat to agriculture and food supply, as a driver of contemporary human migration patterns, and as a contributor to political instability. And in science, the impact of higher ocean temperatures in putting more moisture into the air, leading to more destructive rainfall events, should be taught as part of the water cycle.
- Climate change instruction should be reinforced by using APS facilities as living laboratories. Assessing energy use and greenhouse emissions of school buildings, monitoring production of electricity from rooftop solar panels, and observing nature in school landscapes and gardens can be learning opportunities for students.
- The teaching of the various aspects of climate change should be continuously updated with the latest information.
- The teaching of climate change should be integrated into the curriculum throughout the entire academic school year, not just tacked on to the end of the school calendar if instruction time allows.

We applaud the work of the APS sustainability liaisons and suggest that their activities should be more fully integrated into the curriculum.

We hope that APS will increase the extent to which the subject of climate change is taught as part of its academic curriculum. Please let us know if we can assist in

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<sup>1</sup> See, for example: [https://cleanet.org/clean/literacy/principle\\_6.html](https://cleanet.org/clean/literacy/principle_6.html)

this effort, such as by providing additional information or examples, or by sharing the expertise of our members. We would also be happy to attend a virtual or in-person meeting.

Sincerely,



Cindy Lewin  
Chair, Climate Change, Energy, and Environment Commission

Cc: Mark Schwartz, County Manager

Bill Eger, Chief Climate Policy Officer

Demetra McBride, Bureau Chief, Office of Sustainability and  
Environmental Management

Arlington County School Board

Dr. Francisco Duran, Superintendent, Arlington Public Schools

Gerald Mann, Chief Academic Officer, Arlington Public Schools