



Jones, Stephanie

From: Fabie, Adam <FabieA@mhs-pa.org>
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To: ED, State Board of Ed
Subject: [External] Re: Chapter 4 Public Comment

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Executive Director Molchanow,

I am pleased to firmly support the Chapter 4 Science Standard adoption.

Contrary to current standards, students are invited to participate in scientific discovery and learn concepts in context. Chapter 4 drives at equity, a core necessity of science education, and focuses on what students *can do* with what they know as opposed to recalling knowledge in isolated fashion. That means that the perceived gaps in content become secondary to the skill-building and process.

As a result, the state assessment methods must be intensely revised to highlight student skills instead of level 1 knowledge recall. Providing students with novel phenomena in which they can apply their skills (i.e. Asking Questions, Developing and Using Models, Planning and Carrying Out Investigations, Analyzing and Interpreting Data, Using Mathematics and Computational Thinking, Constructing Explanations and Designing Solutions, Engaging in Argument from Evidence, and Obtaining, Evaluating, and Communicating Information) is imperative. This highlights the most important components of science as a process instead of a knowledge base AND has the ability to reduce costs for the state as a less exhaustive assessment method is necessary to evaluate student proficiency.

In one student conversation, the student noted that, "At first, it was more challenging. You didn't give us answers like it used to be in science. But I got used to it and I think it made science more accessible for everyone". Though this is a paraphrased account, it highlights the equity component the commonwealth values and forces students to develop their skills to demonstrate success.

The proposed rule in the bulletin uses the word *innovation*, the root word of which is *nova* – latin for *new* from the word *novus*. As with any shift, the change can be scary, but status quo bias cannot interfere with what's best for students. It's time to reimagine what science education can be and prepare students for the projected 8-9% growth in STEM occupations through 2029.

Thank you!

Adam Fabie
Science Dept Chair
Milton Hershey School
Hammond Hall E216