Jones, Stephanie

From: Gary Popiolkowski <garypoprr33@gmail.com>

Sent: Friday, June 18, 2021 8:26 AM

To: ED, State Board of Ed **Subject:** [External] Science standards

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Karen Molchanov,

As a former middle school science teacher, I have concerns about the proposed Integrated Standards for Science, Environment and Ecology at the secondary level and how they will impact current and future students in our state. The proposed standards do not explicitly include Environment and Ecology as performance standards for grades 6-12. The topics covered in the deleted standards help teach many basic and fundamental biology and chemistry topics. Secondary students must understand the importance of:

- · watersheds and wetlands.
- biological diversity for environmental health,
- our relationship to the environment,
- how ecosystems function and change over time,
- and proper management of threatened, endangered, and extinct species.

Furthermore, the proposed standards should include expectations for forming and evaluating views and need for action, planning and acting, and evaluating results. The performance standards should also include personal and civic responsibility expectations.

Quality environmental education begins with a foundation of understanding of our natural sciences and natural communities that include people. Natural science education must be ongoing and build on this fundamental building block in which each student understands Pennsylvania's ecosystems and the role of our natural community.

Our secondary students today are tomorrow's leaders and decision-makers for Pennsylvania. Pennsylvania's future environmental health, citizen well-being, and economic vitality depend on the knowledge available to our students now and for years to come.

Please ensure Environment and Ecology standards are not lost. I implore you to create a fifth, separate domain for these content topics, ensuring these vital subject areas are not ignored and that Pennsylvania students are set up for success.

Thank you for supporting these meaningful learning standards for students across the Commonwealth and correcting this huge mistake.

Gary Popiolkowski

Sent from my iPad