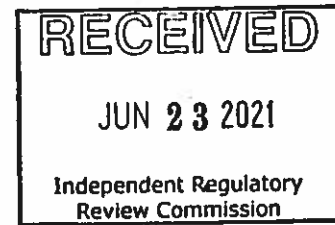


Karen Molchanow
Executive Director
Pennsylvania State Board of Education
333 Market Street, 1st Floor
Harrisburg, PA 17126



Ms. Molchanow,

Thank you for supporting the process of revising the Pennsylvania Science, Technology, and Environment and Ecology standards. After reviewing the proposed standards as a Secondary Agricultural Science teacher at Central Columbia High School, I have concerns about the proposed Integrated Standards for Science, Environment and Ecology at the secondary level (grades 6-12).

1. The new proposed standards do not explicitly include Environment, Ecology and Agriculture as performance expectations (i.e. Sections 4.4. and 4.5 from the 2002 Standards). After review of the proposed standards, I have found that the following areas are weakly connected or NOT CONNECTED at all to the proposed standards. These topics should be included and potentially aligned to the National Agriculture, Food, and Natural Resources Standards if possible.

- Watersheds and Wetlands – Cycles, Role of Watersheds, Physical Factors, Characteristics and Functions of Wetlands, Impacts of Watersheds and Wetlands
- Renewable and Nonrenewable Resources – Uses, Influential Factors
- Environmental Health – Biological Diversity
- Agriculture and Society – Society Needs, Agriculture Science, Agriculture Systems, Technology
- Integrated Pest Management – Effects Benefits and Impacts, Health Risks, Management Practices
- Ecosystems and their Interactions – Change Over Time
- Threatened, Endangered, and Extinct Species – Management Strategies
- Humans and the Environment – Society Needs, Sustainability, Supply and Demand
- Environmental Laws and Regulations – Environmental Laws and their Impacts

2. There was not an attempt to directly crosswalk the proposed standards to the National Agriculture, Food, and Natural Resources (AFNR) standards. Many states have adopted the National AFNR Standards to assist school-based Agricultural Education programs deliver technical agriculture knowledge and career-readiness skills. I believe there should be a deliberate crosswalk in the proposed Integrated Standards for Science, Environment, and Ecology at the secondary level (6-12) to the National AFNR standards. This inclusion will provide clarity and guidance to Pennsylvania Agricultural Science teachers. Further conversations are encouraged to address this issue.

3. As a Secondary Agricultural Educator, I want to bring forward how the proposed standards do not clearly identify standards related to general knowledge about agricultural and environmental science (i.e. agricultural literacy) and career preparation skills necessary for students in secondary Agricultural Education programs who intend to enter the agricultural workforce. In

short, further conversations are needed with practitioners and context experts to develop recommendations for this issue.

4. The 2002 Academic Standards for Health, Safety, and Physical Education contain a great deal of information on human development, the human body, and nutrition (Standard 10.1 Concepts of Health). Additionally, 2002 Academic Standards for Family & Consumer Science has an important section on developing informed food consumers (Section 11.3 Food Science & Nutrition). By inclusion or reference, these standards should be brought into the proposed Integrated Standards for Science, Environment, and Ecology and be updated where needed with the National AFNR Standards.

These topics are critical to ensure that Pennsylvania students are informed about agriculture, food and natural resources and are prepared for the challenges and opportunities of the 21st century economy. The new standards may be in place for several years. Leaving these critical topics out of a student's education will result in a deficit of valuable learning.

Thank you for supporting meaningful learning for students across the Commonwealth.

Sincerely,

Chris Mitchell

Biology Teacher

Central Columbia High School

Karen Molchanow
Executive Director
Pennsylvania State Board of Education
333 Market Street, 1st Floor
Harrisburg, PA 17126

Ms. Molchanow,

Thank you for supporting the process of revising the Pennsylvania Science, Technology, and Environment and Ecology standards. After reviewing the proposed standards as a Secondary Agricultural Science teacher at Otto-Eldred Jr/Sr High School, I have concerns about the proposed Integrated Standards for Science, Environment and Ecology at the secondary level (grades 6-12).

1. The new proposed standards do not explicitly include Environment, Ecology and Agriculture as performance expectations (i.e. Sections 4.4. and 4.5 from the 2002 Standards). After review of the proposed standards, I have found that the following areas are weakly connected or NOT CONNECTED at all to the proposed standards. These topics should be included and potentially aligned to the National Agriculture, Food, and Natural Resources Standards if possible.

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Thank you for supporting meaningful learning for students across the Commonwealth.

Sincerely,

A handwritten signature in dark ink, appearing to read "Brandon Witmer", with a stylized, flowing script.

Brandon Witmer

Otto-Eldred Jr/Sr High School

Karen Molchanow
Executive Director
Pennsylvania State Board of Education
333 Market Street, 1st Floor
Harrisburg, PA 17126

Ms. Molchanow,

Thank you for supporting the process of revising the Pennsylvania Science, Technology, and Environment and Ecology standards. After reviewing the proposed standards as a Secondary Agricultural Science teacher at Juniata Valley, I have concerns about the proposed Integrated Standards for Science, Environment and Ecology at the secondary level (grades 6-12).

1. The new proposed standards do not explicitly include Environment, Ecology and Agriculture as performance expectations (i.e. Sections 4.4. and 4.5 from the 2002 Standards). After review of the proposed standards, I have found that the following areas are weakly connected or NOT CONNECTED at all to the proposed standards. These topics should be included and potentially aligned to the National Agriculture, Food, and Natural Resources Standards if possible.

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Thank you for supporting meaningful learning for students across the Commonwealth.

Sincerely,

Raylene Russell

Raylene Russell

Juniata Valley High School

Karen Molchanow
Executive Director
Pennsylvania State Board of Education
333 Market Street, 1st Floor
Harrisburg, PA 17126

Ms. Molchanow,

Thank you for supporting the process of revising the Pennsylvania Science, Technology, and Environment and Ecology standards. After reviewing the proposed standards as a Secondary Agricultural Science teacher at Meyersdale Area High School, I have concerns about the proposed Integrated Standards for Science, Environment and Ecology at the secondary level (grades 6-12).

1. The new proposed standards do not explicitly include Environment, Ecology and Agriculture as performance expectations (i.e. Sections 4.4. and 4.5 from the 2002 Standards). After review of the proposed standards, I have found that the following areas are weakly connected or NOT CONNECTED at all to the proposed standards. These topics should be included and potentially aligned to the National Agriculture, Food, and Natural Resources Standards if possible.

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Thank you for supporting meaningful learning for students across the Commonwealth.

Sincerely,

Doreen Jamison

Meyersdale Area High School

From: [SaraBeth Fulton](#)
To: [ED, State Board of Ed](#)
Subject: [External] PA State Science Standards
Date: Monday, June 21, 2021 9:29:56 PM

ATTENTION: *This email message is from an external sender. Do not open links or attachments from unknown sources. To report suspicious email, forward the message as an attachment to CWOPA_SPAM@pa.gov.*

Karen Molchanow
Executive Director
Pennsylvania State Board of Education
333 Market Street, 1st Floor
Harrisburg, PA 17126

Ms. Molchanow,

Thank you for supporting the process of revising the Pennsylvania Science, Technology, and Environment and Ecology standards. After reviewing the proposed standards as a Secondary Agricultural Science teacher at Big Spring School District, I have concerns about the proposed Integrated Standards for Science, Environment and Ecology at the secondary level (grades 6-12).

1. The new proposed standards do not explicitly include Environment, Ecology and Agriculture as performance expectations (i.e. Sections 4.4. and 4.5 from the 2002 Standards). After review of the proposed standards, I have found that the following areas are weakly connected or NOT CONNECTED at all to the proposed standards. These topics should be included and potentially aligned to the National Agriculture, Food, and Natural Resources Standards if possible.
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Science teachers. Further conversations are encouraged to address this issue.

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These topics are critical to ensure that Pennsylvania students are informed about agriculture, food and natural resources and are prepared for the challenges and opportunities of the 21st century economy. In the state of Pennsylvania and in the United States, many jobs are directly tied to the agriculture industry, and it is imperative that all students understand how agriculture impacts their lives. The new standards may be in place for several years, thus leaving these critical topics out of a student's education will result in a deficit of valuable learning.

Thank you for supporting meaningful learning for students across the Commonwealth.

Sincerely,

SaraBeth Fulton
Big Spring School District
Agriculture Educator

Sent from [Mail](#) for Windows 10

Karen Molchanow
Executive Director
Pennsylvania State Board of Education
333 Market Street, 1st Floor
Harrisburg, PA 17126

Ms. Molchanow,

Thank you for supporting the process of revising the Pennsylvania Science, Technology, and Environment and Ecology standards. After reviewing the proposed standards as a Secondary Agricultural Science teacher at Selinsgrove High School, I have concerns about the proposed Integrated Standards for Science, Environment and Ecology at the secondary level (grades 6-12).

1. The new proposed standards do not explicitly include Environment, Ecology and Agriculture as performance expectations (i.e. Sections 4.4. and 4.5 from the 2002 Standards). After review of the proposed standards, I have found that the following areas are weakly connected or NOT CONNECTED at all to the proposed standards. These topics should be included and potentially aligned to the National Agriculture, Food, and Natural Resources Standards if possible.

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Thank you for supporting meaningful learning for students across the Commonwealth.

Sincerely,

Mrs. Valerie S. Fry

Selinsgrove Area High School

Karen Molchanow
Executive Director
Pennsylvania State Board of Education
333 Market Street, 1st Floor
Harrisburg, PA 17126

Ms. Molchanow,

Thank you for supporting the process of revising the Pennsylvania Science, Technology, and Environment and Ecology standards. After reviewing the proposed standards as a Secondary Agricultural Science teacher at Central Columbia High School, I have concerns about the proposed Integrated Standards for Science, Environment and Ecology at the secondary level (grades 6-12).

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Thank you for supporting meaningful learning for students across the Commonwealth.

Sincerely,

Douglas G. Brown

Central Columbia High School

Agricultural/Environmental Science Instructor

Mr. Mark Blanchard
High School Executive Director

Mr. Rob Martin
Associate Principal

Mr. Brian Robinson
Associate Principal



Soaring to Greatness, Committed to Excellence

Cumberland Valley High School

6746 Carlisle Pike

Mechanicsburg, PA 17050

717-506-3660

Mrs. Colleen Staton 12th Grade Principal

Mr. Nick Wilson 11th Grade Principal

Dr. Michael Jones 9th/10th Grade Principal

Mrs. Jamie Croft Dean of Students

June 21, 2021

Karen Molchanow
Executive Director
Pennsylvania State Board of Education
333 Market Street, 1st Floor
Harrisburg, PA 17126

Ms. Molchanow,

Thank you for supporting the process of revising the Pennsylvania Science, Technology, and Environment and Ecology standards. After reviewing the proposed standards as a Secondary Agricultural Science teacher at Cumberland Valley High School, I have concerns about the proposed Integrated Standards for Science, Environment and Ecology at the secondary level (grades 6-12).

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Thank you for supporting meaningful learning for students across the Commonwealth.

Sincerely,



Darla J. Romberger
Agricultural Science Teacher/FFA Advisor
Cumberland Valley High School

Past President – Pennsylvania Association of Agricultural Educators (PAAE)

Karen Molchanow
Executive Director
Pennsylvania State Board of Education
333 Market Street, 1st Floor
Harrisburg, PA 17126

Ms. Molchanow,

Thank you for supporting the process of revising the Pennsylvania Science, Technology, and Environment and Ecology standards. After reviewing the proposed standards as a Secondary Agricultural Science teacher at Eastern Lancaster County School District (Garden Spot High School) I have concerns about the proposed Integrated Standards for Science, Environment and Ecology at the secondary level (grades 6-12).

1. The new proposed standards do not explicitly include Environment, Ecology and Agriculture as performance expectations (i.e. Sections 4.4. and 4.5 from the 2002 Standards). After review of the proposed standards, I have found that the following areas are weakly connected or NOT CONNECTED at all to the proposed standards. These topics should be included and potentially aligned to the National Agriculture, Food, and Natural Resources Standards if possible.

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Thank you for supporting meaningful learning for students across the Commonwealth.

Sincerely,

Katherine L. Ranck

Eastern Lancaster County School District

Garden Spot High School

Karen Molchanow
Executive Director
Pennsylvania State Board of Education
333 Market Street, 1st Floor
Harrisburg, PA 17126

June 21, 2021

Ms. Molchanow,

Thank you for supporting the process of revising the Pennsylvania Science, Technology, and Environment and Ecology standards. After reviewing the proposed standards as a Secondary Agricultural Science teacher at Bermudian Springs High School, I have concerns about the proposed Integrated Standards for Science, Environment and Ecology at the secondary level (grades 6-12).

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3. As a Secondary Agricultural Educator, I want to bring forward how the proposed standards do not clearly identify standards related to general knowledge about agricultural and environmental science (i.e. agricultural literacy) and career preparation skills necessary for students in secondary Agricultural Education programs who intend to enter the agricultural workforce. In short, further conversations are needed with practitioners and context experts to develop recommendations for this issue.

4. The 2002 Academic Standards for Health, Safety, and Physical Education contain a great deal of information on human development, the human body, and nutrition (Standard 10.1 Concepts of Health). Additionally, 2002 Academic Standards for Family & Consumer Science has an important section on developing informed food consumers (Section 11.3 Food Science & Nutrition). By inclusion or reference, these standards should be brought into the proposed Integrated Standards for Science, Environment, and Ecology and be updated where needed with the National AFNR Standards.

These topics are critical to ensure that Pennsylvania students are informed about agriculture, food and natural resources and are prepared for the challenges and opportunities of the 21st century economy. The new standards may be in place for several years. Leaving these critical topics out of a student's education will result in a deficit of valuable learning.

Thank you for supporting meaningful learning for students across the Commonwealth.

Sincerely,

A handwritten signature in cursive script, reading "Dianna K. Jarema", written in dark ink on a light-colored background.

Dianna K. Jarema

Bermudian Springs High School