| **Virginia Board of Education Agenda Item** | **Seal of the Commonwealth of Virginia** |
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# **Agenda Item**: K

# **Date:** October 15, 2020

# Title: Final Review of Addition to the State Approved Textbooks for K-12 Science

# Presenter: Dr. Anne Petersen, Science Coordinator

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# Purpose of Presentation:

Action required by state or federal law or regulation.

# Executive Summary:

The Virginia Department of Education (VDOE) began the process to review science textbooks following the Board of Education’s approval to do so on July 25, 2019. The Department followed the [Timeline for State Approval Process for Science](http://www.doe.virginia.gov/instruction/textbooks/science/texbook-approval-science.docx) (Word) and the [Textbook Criteria for Science](http://www.doe.virginia.gov/instruction/textbooks/science/2019/science%20_textbook_evaluation_forms_2019.docx) to conduct the textbook review. In November 2019, publishers of the reviewed science textbooks submitted a Publisher’s Certification and Agreement form for each textbook being considered for approval by the Board of Education. VDOE staff members have reviewed the information included in each submitted [Publisher’s Certification and Agreement form](http://www.doe.virginia.gov/instruction/textbooks/review_process/publisher_submission_form.docx).

On September 17, 2020, the BOE approved the State Approved Textbooks for K-12 Science with the exception of one textbook (Virginia Elevate Science Grade 6). This text was not approved due to a lack diversity that was ascertained through an additional equity review of the proposed textbooks (Attachment A). This additional review was done at the request of the BOE during the July, 23, 2020 Board meeting. Since the proposed textbook aligned to the 2018 Science Standards of Learning, the publisher was allowed to update images to reflect a greater level of diversity and resubmitted the text for inclusion on the State Approved Textbooks for K-12 Science. The updated images were reviewed by the VDOE science team and it was determined that these revised images reflect a higher level of diversity thus allowing students the opportunity to see themselves, their community, and their culture within the texts.

# Action Requested:

Final review: Action requested at this meeting.

# Superintendent’s Recommendation:

The Superintendent of Public Instruction recommends that the Board of Education approve the revised list of recommended textbooks for K-12 science (Attachment B).

# Rationale for Action:

Pursuant to the Constitution of Virginia and the Code of Virginia, Board action is required to approve textbooks and instructional aids and materials for use in K-12 science courses in the Commonwealth.

# Previous Review or Action:

Previous review and action. Specify date and action taken below:

**Date**: July 25, 2019

**Action**: Report outlining the anticipated timeline and the approved process to review and approve textbooks for K-12 science

**Date**: July 23, 2020

**Action**: First Review

**Date**: September 17, 2020

**Action**: Final Review

# Background Information and Statutory Authority:

The Board of Education’s authority for approving textbooks or other instructional materials is prescribed in the Constitution of Virginia ([Article VIII, § 5](https://law.lis.virginia.gov/constitution/article8/section5/)) and in the [*Code of Virginia*](https://law.lis.virginia.gov/vacode/22.1-253.13:1/). [Virginia’s Textbook Review Process](http://www.doe.virginia.gov/instruction/textbooks/review_process/va_textbook_review_process.pdf) provides a comprehensive overview of the current textbook review process, along with the *Regulations Governing Local School Boards and School Divisions*.

The current list of state-approved science textbooks was approved by the Board in September, 2020 following revisions to the *Science Standards of Learning* and *Curriculum Framework* in 2018*.*

# Timetable for Further Review/Action:

Upon approval, the Department of Education will publish the list of approved textbooks on its website in accordance with [§22.1-238 of the *Code of Virginia*](https://law.lis.virginia.gov/vacode/title22.1/chapter13/section22.1-238/).

# Impact on Fiscal and Human Resources:

This responsibility can be absorbed by the agency’s existing resources at this time. If the agency is required to absorb additional responsibilities related to this process, other services will be impacted.

***Attachment A - Equity Review Questions***

The Virginia Board of Education (BOE) has accepted the initial list of science textbooks and appreciate the efforts that the review teams dedicated to the review process. This review process was conducted to determine the alignment of the proposed textbook content to the 2018 *Science Standards of Learning*. The BOE asked that we also review the textbooks to ensure that these texts align to the BOE's statement on Equity (excerpt included below).

Board remains committed to prioritizing equity in every facet of Virginia’s public education system, to ensure every child receives what they need, when they need it, to access a high-quality public education. This vision of equity extends across race, socioeconomic status, and regional diversity. In October 2019, the Board prescribed revised Standards of Quality, and advocated for their implementation during the 2020 General Assembly, in order for the Commonwealth to make progress towards equity of opportunity and outcome for all of Virginia’s students.

1. There are opportunities in the textbook for students to view themselves, their community, and their cultural backgrounds in science.

Strongly Agree Agree Neutral Disagree Strongly Disagree

2. The textbook provides opportunities for teachers to design instruction that allows for students to engage in authentic science experiences and allows all students the opportunity to "do science" and develop scientific and engineering practices.

Strongly Agree Agree Neutral Disagree Strongly Disagree

3. The Nature of Science reinforces the fact that science is an ongoing, collaborative, and society driven endeavor that leads to the development and revision of scientific theories and laws.  The textbook reflects the diversity of scientists and the impact of cultures involved in the development of scientific theories and laws, particularly those theories that are emphasized in the 2018 Science Standards of Learning.

Strongly Agree Agree Neutral Disagree Strongly Disagree

4. Would you recommend this textbook as a resource that teachers may use to address science content outlined in the 2018 Science Standards of Learning through the lenses of culture, race, gender, and backgrounds of their classroom populations?

Yes No

5. Do you have any comments or concerns with this textbook that you would like us to share with the Virginia Board of Education concerning this text when viewed through an equity lens?

Attachment B - Science Textbooks Revision Recommended for Approval

**Satisfactory Completion of Publisher’s Certifications and Agreements**

| **Grade/Course** | **Publisher** | **Title** | **Yes** | **No** |
| --- | --- | --- | --- | --- |
| **Kindergarten** |  |  |  |  |
| Kindergarten | Accelerate Learning, Inc. | STEMscopes Virginia - Kindergarten | X |  |
| Kindergarten | Delta Education, LLC/ School Specialty, Inc. | Grade K VA FOSS: Animals Two by Two, Trees and Weather, Materials and Motion | X |  |
| Kindergarten | Discovery Education, Inc. | Virginia Discovery Education Science Experience – Grade K | X |  |
| Kindergarten | Five Ponds Press Books, Inc. | Exploring Science All Around Us Level K | X |  |
| Kindergarten | SASC, LLC dba Activate Learning | PRIME: Pushes and Pulls, Plants and Animals, Watching the Sky | X |  |
| **Grade 1** |  |  |  |  |
| Grade 1 | Accelerate Learning, Inc. | STEMscopes Virginia – Grade 1 | X |  |
| Grade 1 | Delta Education, LLC/ School Specialty, Inc. | Grade 1 VA FOSS: Plants and Animals, Air and Weather, Sound and Light | X |  |
| Grade 1 | Discovery Education, Inc. | Virginia Discovery Education Science Experience – Grade 1 | X |  |
| Grade 1 | Five Ponds Press Books, Inc. | Exploring Science All Around Us Level 1 | X |  |
| Grade 1 | SASC, LLC dba Activate Learning | PRIME: Light and Sound, Examining Living Things, Tracking the Weather | X |  |
| **Grade 2** |  |  |  |  |
| Grade 2 | Accelerate Learning, Inc. | STEMscopes Virginia – Grade 2 | X |  |
| Grade 2 | Delta Education, LLC/ School Specialty, Inc. | Grade 2 VA FOSS: Insects and Plants, Weather and Seasons, Solids and Liquids, Forces in Action | X |  |
| Grade 2 | Discovery Education, Inc. | Virginia Discovery Education Science Experience – Grade 2 | X |  |
| Grade 2 | Five Ponds Press Books, Inc. | Exploring Science All Around Us Level 2 | X |  |
| Grade 2 | SASC, LLC dba Activate Learning | PRIME: Forces in Action; Solids, Liquids, and Gases; Patterns in Life Cycles; Diversity in Habitats; Land, Water, and Wind | X |  |

| **Grade/Course** | **Publisher** | **Title** | **Yes** | **No** |
| --- | --- | --- | --- | --- |
| **Grade 3** |  |  |  |  |
| Grade 3 | Accelerate Learning, Inc. | STEMscopes Virginia – Grade 3 | X |  |
| Grade 3 | Delta Education, LLC/ School Specialty, Inc. | Grade 3 VA FOSS: Structure of Life, Water and Climate, VA Motion and Matter | X |  |
| Grade 3 | Discovery Education, Inc. | Virginia Discovery Education Science Experience – Grade 3 | X |  |
| Grade 3 | Five Ponds Press Books, Inc. | Exploring Science All Around Us Level 3 | X |  |
| Grade 3 | SASC, LLC dba Activate Learning | PRIME: Changing Environments, Earth’s Systems, Inheritance and Variation | X |  |
| **Grade 4** |  |  |  |  |
| Grade 4 | Accelerate Learning, Inc. | STEMscopes Virginia – Grade 4 | X |  |
| Grade 4 | Delta Education, LLC/ School Specialty, Inc. | Grade 4 VA FOSS: Living Systems, VA Environments, Earth and Sun | X |  |
| Grade 4 | Discovery Education, Inc. | Virginia Discovery Education Science Experience – Grade 4 | X |  |
| Grade 4 | Five Ponds Press Books, Inc. | Exploring Science All Around Us Level 4 | X |  |
| **Grade 5** |  |  |  |  |
| Grade 5 | Accelerate Learning, Inc. | STEMscopes Virginia – Grade 5 | X |  |
| Grade 5 | Discovery Education, Inc. | Virginia Discovery Education Science Experience – Grade 5 | X |  |
| Grade 5 | Five Ponds Press Books, Inc. | Exploring Science All Around Us Level 5 | X |  |

Science Textbooks Revision Recommended for Approval

**Satisfactory Completion of Publisher’s Certifications and Agreements**

| **Grade/Course** | **Publisher** | **Title** | **Yes** | **No** |
| --- | --- | --- | --- | --- |
| **Grade 6** |  |  |  |  |
| Grade 6 | Accelerate Learning, Inc. | STEMscopes Virginia – Grade 6 | X |  |
| Grade 6 | Savvas Learning Company LLC | Virginia Elevate Science Grade 6 | X |  |
| **Life Science** |  |  |  |  |
| Life Science | Accelerate Learning, Inc. | STEMscopes Virginia – Middle School Life Science | X |  |
| Life Science | Discovery Education, Inc. | Virginia Discovery Education Science Experience – Life Science | X |  |
| Life Science | Savvas Learning Company LLC | Virginia Elevate Science Life | X |  |
| **Physical Science** |  |  |  |  |
| Physical Science | Accelerate Learning, Inc. | STEMscopes Virginia – Middle School Physical Science | X |  |
| Physical Science | Delta Education, LLC/ School Specialty, Inc. | Grade 8 VA FOSS: Waves, Gravity and Kinetic Energy, Electromagnetic Force, Chemical Interactions | X |  |
| Physical Science | Discovery Education, Inc. | Virginia Discovery Education Science Experience – Physical Science | X |  |
| Physical Science | Savvas Learning Company LLC | Virginia Elevate Science Physical | X |  |
| Physical Science | SASC, LLC dba Activate Learning | PBIScience: Air Quality, Energy, Vehicles in Motion | X |  |

Science Textbooks Revision Recommended for Approval

**Satisfactory Completion of Publisher’s Certifications and Agreements**

| **Grade/Course** | **Publisher** | **Title** | **Yes** | **No** |
| --- | --- | --- | --- | --- |
| **Biology** |  |  |  |  |
| Biology | Discovery Education, Inc. | Virginia Discovery Education Science Experience – Biology | X |  |
| Biology | Savvas Learning Company LLC | Virginia Miller and Levine Biology | X |  |
| **Chemistry** |  |  |  |  |
| Chemistry | Accelerate Learning, Inc. | STEMscopes Virginia – Chemistry | X |  |
| Chemistry | Discovery Education, Inc. | Virginia Discovery Education Science Experience - Chemistry | X |  |
| Chemistry | Lab-Aids Inc. | A Natural Approach to Chemistry | X |  |
| Chemistry | National Geographic Learning/Cengage | World of Chemistry | X |  |
| Chemistry | PASCO Scientific | Essential Chemistry | X |  |
| Chemistry | SASC, LLC dba Activate Learning | Active Chemistry | X |  |
| Chemistry | Savvas Learning Company LLC | Pearson Chemistry | X |  |
| Chemistry | Savvas Learning Company LLC | Virginia Experience Chemistry | X |  |
| **Earth Science** |  |  |  |  |
| Earth Science | Discovery Education, Inc. | Virginia Discovery Education Science Experience – Earth and Space Science | X |  |
| **Physics** |  |  |  |  |
| Physics | Accelerate Learning, Inc. | STEMscopes Virginia – Physics | X |  |
| Physics | Discovery Education, Inc. | Virginia Discovery Education Science Experience – Physics | X |  |
| Physics | PASCO Scientific | Essential Physics | X |  |
| Physics | SASC, LLC dba Activate Learning | Active Physics | X |  |