

Science Materials for Board of Education Consideration



Betsy Gann
Director of Curriculum & Gifted Services



Need

- Guaranteed curriculum
- Evidence-based materials
- Instruction aligned to 2019 Ohio Science Standards
- Teacher support-time savings



Science Philosophy Work Bellbrook Science September 2019 Strategic Plan Action Step: Develop Subject Area Philosophies

"Bellbrook will graduate science-literate students able to use science knowledge and science practices in work (career), society and life."



Adoption Review

Development of Instructional Philosophy and professional development 19-20

Pre Covid Review

Spring 2022

- Conversations begin again after ARP ESSER funding was earmarked to support adoption
- Engaged GCESC partners to support science curriculum research, establishing priorities with district administration, etc.
- Building-level needs
 - High School
 - Traditional textbook adoptions by subject area
 - Middle School
 - Continue with CK12 open source eText



Adoption Review

- Bell Creek
 - Need for consistent, standards-based science curriculum that emphasizes phenomenon/inquiry-based learning through hands-on experiences. Prioritize an intentional focus on scientific literacy skills (speaking, listening, and writing about science)
 - Building science team members established
- Stephen Bell
 - Continue using Generation Genius online resources



Adoption Review (con't)

Fall 2022

- Samples received during first semester and shared with BHS and BCI staff members
- Vendor presentations at Bell Creek demonstrating online text features
 - Amplify
 - Savvas
- Requested pilot access for Bell Creek from both vendors in order to compare online experiences for students. Vendors have shifted from free pilots so this was cost prohibitive.
 Vendors now charge full per student/per teacher fees



Adoption Review (con't)

Winter 2023:

- Pivoted to online free "sandbox" accounts for Bell Creek teachers accessible January 2023 in order to thoroughly review curriculum features and ease of use. Login information to Bell Creek teachers
- BHS continued review as subject area teacher teams

February 27-March 3, 2023 -Vendor materials set up at Central Office for board member review

- SB-Handouts about <u>Generation Genius</u> web based supplement to informational text
- BCI-Sample materials of Savvas and Amplify
- BMS-PDF copies of CK12 materials
- BHS-Samples of all vendor textbooks



Adoption Review (con't)

March 14, 2023 5-7 pm-Preferred materials available at Bellbrook Middle School prior to the PTO meeting for public review, per board policy 2510

March 14, 2023 7pm BG presentation of Science adoption process and proposed curriculum materials to PTO

April 27, 2023 BOE meeting-Proposal to adopt

See one page "Science Curriculum Resources Proposal" organized by building



| Stephen Bell Elementary | All grade levels Generation Genius-online primary resource |
|-------------------------------|--|
| Bell Creek Intermediate | All grade levels Interactive Science Ohio, Savvas-Primary Resource Elevate NGSS, Savvas-Online supplement provided free Generation Genius-online supplementary resource |
| Bellbrook Middle School | All grade levels CK12.org Being an open educational resource, as well as being customizable, CK-12 allows teachers to decide what concepts to teach, in what order, and how. Mission CK-12 Foundation. (n.d.). Retrieved April 20, 2023, from https://www.ck12info.org/wp-content/uploads/2012/10/ck12-vision-document.pdf |



Physical Science

Inspire Physical Science with Earth, 2020, McGraw Hill; ISBN: 978-0-07-694221-3

Biology

Biology, Miller and Levine, 2019, Savvas; ISBN: 978-0-328-92512-4

Chemistry

Bellbrook High School

Introductory Chemistry, Tro, Sixth Edition, Pearson; 13: 978-0-13-455737-3

Physics

College Physics, Serway Vuile, 11th edition, Cengage; ISBN: 978-1-305-96519-3



Earth and the Environment

Inspire Science: Earth, 2020, McGraw Hill; ISBN: 9780021452613

AP Chemistry

Chemistry, A Molecular Approach, Sixth Edition, Nivaldo J. Tro, Pearson; ISBN: 9780137657810

AP Environmental Science

Environmental Science for the AP Course, Fourth Edition, Friedland and Relya, BFW Publishing; ISBN: 9781319409289

AP Physics C

Physics for Scientist and Engineers, Tenth Edition, Serway Jewitt, Cengage; ISBN: 9781337553469