

SUMMARY:

CURRICULUM: Middle School Science Textbook Adoption (funded through the California Lottery Fund in the amount of \$250,370, not the General Fund)

Instructional Shifts in Science Education/NGSS Implementation:

The implementation of the new Next Generation Science Standards (NGSS) in the state of California, and the adoption of the Preferred Integrated Model for middle school science in 2018, updated instructional materials are necessary to effectively teach the revised curriculum.

The new standards are vertically aligned so that each grade level builds more cohesively with the previous grade levels from K-12. Standards consist of four domains: Life Science, Physical Science, Earth Space Science, and Engineering, Technology, & Applications of Science. The domains are further divided into subgroups and consist of content specific Performance Standards. The architecture of the NGSS framework is broken into 3 dimensions: Science & Engineering Practices (SEP), Disciplinary Core Ideas (DCI), and Crosscutting Concepts (CCC). Each personal expectation is written to include all 3 dimensions with an emphasis on skills as well as content knowledge.

In the middle school integrated model the four domains are distributed among all grades (6-8), compared to the previous model in which Earth Science was taught in grade 6, Life Science was taught in grade 7, and Physical Science was taught in grade 8. The 5th grade curriculum has been modified to include Performance Expectations from all four domains and is supported by the alignment with earlier grades.

Updated Instructional Materials for Science:

Current instructional materials are not designed to support the NGSS framework and instructional shifts, and are not only focused exclusively on content, but also contain outdated scientific information due to their age. The California State Board of Education reviewed instructional materials and 2018 provided an approved list of publishers who meet the requirements of NGSS and the California Environmental Education Initiative. New instructional materials are provided in a hybrid digital/print format. The adoption of materials with digital components allows for the updating of information in real time as new scientific discoveries are made and provides better and more authentic information to our students.

Perris Union High School District Pilot:

In 2020 the middle school teachers at Pinacate Middle School piloted three CDE approved programs: STEMScopes, Amplify, and Discovery Education.

Teachers spent approximately 2.5 months with each program and were provided with professional development and ongoing support from the program representatives. Some teachers taught both 7th and 8th grade courses during the pilot.

Instructional Materials for the following courses were piloted:

Course: Integrated Science 7 PMS - 3 general education teachers, 2 SPED

Course: Integrated Science 8 PMS - 3 general education teachers, 2 SPED

Instructional Materials Recommendation for Middle School Science:

Based on the response from the pilot teachers, it is recommended that the Board of Trustees considers the Discovery Education Science Techbook for district wide adoption in grades 5-8. Discovery Education is a hybrid curriculum that provides teachers the option of using the online, digital program, or using the print materials that are provided with the adoption.

Course(s):

Grade 7: Science

Grade 8: Science

The proposed Science textbooks have been approved by the Director of Curriculum and Instruction and the Assistant Superintendent of Educational Services.