Board of Education Goal

College and Career Readiness

Continue to align core curriculum and resources to Kansas College and Career Ready Standards. (Social Studies, K-12; English/Language Arts, K-5; Writing, K-8; Mathematical Practice Standards, K-12; Next Generation Science Standards, K-12)

Elementary Science Update

November 14, 2016

Previously

- April 2013: Next Generation Science Standards (NGSS) adopted
- 2013-14: Science Leadership Team planning
- 2014-15: Shared NGSS standards with buildings & investigated NGSS aligned instructional resources
- 2015-16: field tested 3 instructional resources

Currently

- 21 Teachers are continuing field test
- Staff are using FOSS kits with enhancements
 - Elementary Science Course Master on Blackboard
 - Additional add-ons to align with NGSS

Science Leadership Team

- September 2 field testers provided update
- October 13 introduction and updated SLT
- November 15 SLT and field testers

After initial observations

- Alternatives to field tested materials
 - Discovery Education Techbooks
 - NGSS aligned
 - 15+ years LPS relationship
 - Personalized
 - Mystery Science
 - NGSS aligned
 - Engaging
 - investigative

Our Goals

- 1. Alignment to the standards
- 2. Cultural relevancy
- 3. User-friendly for teachers & students
- 4. Aligns with the district/board goals
- 5. Ability to personalize and blend for our students

Details to keep in mind

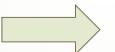
- Materials located within buildings
 - This would allow for teachers to teach units as they fit best with other curricular areas.
- Professional Development offered during the summer
 - As soon as Spring, given availability
- Every teacher teaching science standards every day.

Secondary Science Update

Middle School Model

Science domain model:

6th - Life Science 7th - Earth Science 8th - Physical Science



Conceptual progression model:

- Interdisciplinary approach
- Integrate ELA/Math standards

Process

- Standards work
- → Sequence
- Blackboard Master Course
- Implementation

Implementation Timeline

6th / year 2 7th - year 1 8th - planning

Science 6 Integrated	Science 7 Integrated	Science 8 Integrated
2015-2016 Implementation	2016-2017 Implementation	2017-2018 Implementation
Cells and Organisms	Ecosystems	Natural Selection
Weather and climate	Natural resources	History of the Earth Space systems
Energy	Structure and property of matter	Waves and Electro-magnetic radiation Energy Forces and Interactions
Patterns; structure and function; systems and system models	Energy and Matter: flows, cycles, and conservation; cause and effect	Stability and change; scale, proportion and quantity

Implementation at the High Schools

- Planning for NGSS began in the fall of 2013
- Representatives from both High Schools met during the 13-14 and 14-15 school years
- This Science Leadership Committee researched several implementation plans
- Implementation focused on two venues
 - District level content specific collaboration meetings
 - PLC meetings at each HS

District Level Meetings

15-16 Biology Curriculum Meetings

16-17 Chemistry Curriculum Meetings

17-18 Physics Curriculum Meetings

PLC's

- Meeting every other week during Wednesday's late arrival PLC time
- Biology, Chemistry and Physics Content Area Groups
- Focus is on implementing NGSS content standards as well as student learning

PLC's

What do we want each student to learn?

How will we know when each student has learned it?

How will we respond when a student experiences

difficulty in learning?

NGSS Standards

Crosscutting Concepts
Disciplinary Core Ideas
Science and Engineering Practices