

K-12 Next Generation Science Standards Update

Deborah Lenz, K-8 Science Teacher Leader

&

Colleen Simon-O'Neill and Glenn Wolkenfeld, BHS Science Department Leads

Elementary Science Focus (K-5)

CURRENT STATUS

- Beginning stages of NGSS education
- Monthly meetings/PD for science release teachers
- Purchased some FOSS NG upgrades in 4th & 5th grades
- Prep structure changes for 2018-19 in grades 1-5 impact science
 - K - no science preps (classroom teachers cover science)
 - 1st, 2nd, 3rd - varies by site (no preps, 1 prep, 2 preps)
 - 4th/5th - 2 science preps weekly

Elementary Science Focus (K-5)

NEXT STEPS

- Purchase upgrades to ALL 4th/5th FOSS this spring & offer teacher training on new content (summer/fall 2018, winter 2019)
- Consider/pilot science curriculum for K-3 (possible FOSS upgrade or alternate curriculum)
- Determine supports for K-3 science instruction depending on science prep structure at each site (continue support/PD for 4-5)
- Help sites staff science release teacher positions for 2018-19 & maintain their FOSS science kits
- Address a big challenge in elementary → not enough minutes in the day to cover content in math, literacy, science, history, PE, electives . . .

Middle School Professional Learning Focus (6-8)

CURRENT STATUS

1. Final year of a successful three-year rollout of new curriculum to support NGSS education: 6th grade (2015-16), 7th grade (2016-17), 8th grade (2017-18)
2. Integrated model of science that covers earth, life and physical science each year
3. Core content centered around FOSS Next Generation science kits for middle school, sites now own kits for all grade levels
4. Many teachers have had some FOSS training

Middle School Professional Learning Focus (6-8)

NEXT STEPS

- Further FOSS training for teachers new to the district/curriculum
- Teacher collaboration around best practices with new curriculum
- Further develop Engineering Design & Human Impact activities
- Collaborate with 5th & 9th grade science to connect curriculum
- Annual funding needed to purchase equipment & consumable supplies for experiments & engineering design
- CAST full version this year: 8th grade test covers content from 6-8 & 5th grade test covers content from 3-5

High School 2017-18 Professional Learning Focus (9-12)

1. Implementation of an NGSS-based 9th grade physics course for 10 sections of 9th graders.
2. Reorganizing chemistry and biology around NGSS standards
3. Integrating earth science, space Science, and engineering standards into 9th grade physics, 10th grade chemistry, and 11th grade biology.

High School Professional Learning Focus: 2018-19 (and beyond)

- **2018-2019:** Use NGSS curriculum development funds for release time for a BHS chemistry coach. The coach's role will be to assist all BHS chemistry teachers with
 - Promoting success for all students.
 - Implementing common assessments, inquiry projects, and unit plans.
- **2018-2019:** Work with SPED and counseling department to create greater levels of success for our students with IEPs and students who are ASI 3+.
- **2019-2020:** First year of NGSS aligned 11th grade biology.
- **2020-2021:** NGSS core transition activities complete.

Board Questions and Discussion