BPS K-12 Curriculum Overview: An Age of Integration

- Linked to our District Improvement Plan
 - Coherent, higher-order thinking and student-centered learning
 - Equity and Diversity: Teaching all students
 - Collaborative Professional Culture

I. Coherent, higher order thinking and student centered learning



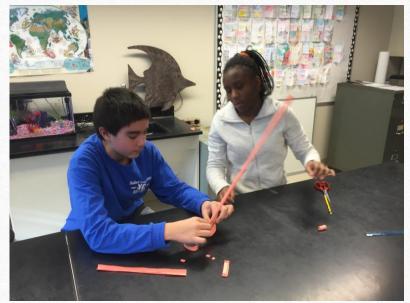
- Integrated Davis Town Project at Davis:
 - Backward design
 - Develops student inquiry
 - Integrates math, science, ELA, and social studies
 - Year-long culminating project engages students and focuses curriculum

Integration of New Science Standards

•<u>Eight practices of science unify the approaches and</u> <u>lend coherence</u>

- •Students using same processes as scientists and engineers use
- •Lessons-units begin with larger question, student inquiry, and investigation
- •Builds in drawing conclusions, testing hypotheses
- •Spiral approach K-8 means topics return and build rather than here's a unit, now it's over and done





Math

M1: Make sense of problems and persevere in solving them M2: Reason abstractly & quantitatively M6: Attend to precision M7: Look for & make use of structure M8: Look for & make use of regularity in repeated reasoning

strategically & capably M5: Use appropriate tools strategically M4. Models with mathematics S2: Develop & use models S5: Use mathematics & computational thinking

E2: Build a strong base of knowledge through content rich textsE5: Read, write, and speak

M3 & E4: Construct viable arguments and critique reasoning of others

grounded in evidence

S7: Engage in argument from evidence

E1: Demonstrate independence in reading complex

E7: Come to understand other perspectives

and cultures through reading, listening,

ELA

texts, and writing and speaking about them

and collaborations

S1: Ask questions and define problems
S3: Plan & carry out investigations
S4: Analyze & interpret data
S6: Construct explanations & design solutions

S8: Obtain, evaluate, & communicate information E3: Obtain, synthesize,

Science

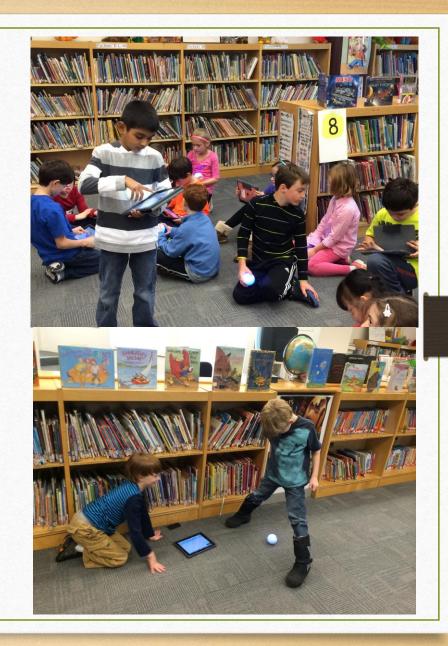
and report findings clearly and effectively in response to task and purpose

Commonalities Among the Practices in Science, Mathematics and English Language Arts

Based on work by Tina Chuek ell.stanford.edu

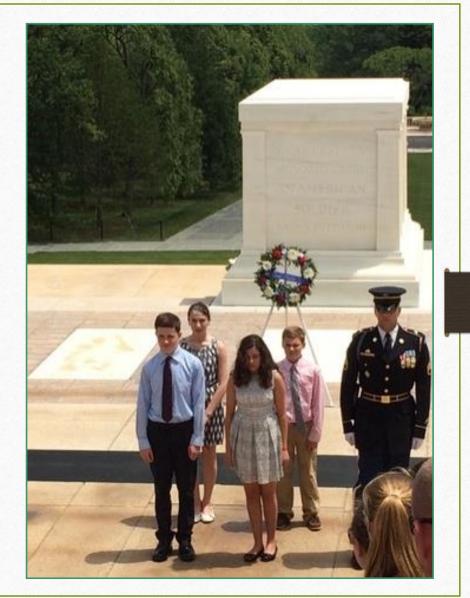
NGSS@**NSTA** STEM STARTS HERE www.nsta.org/ngss The "T" in STEM: Technology Integration

- Coding K-5 and integration within existing curriculum; connect with tech ed and arts; continuing PD by Code.org
- DESE/ Education Development Center (EDC) three-year STEM integrated curriculum project grades 1-6
 - Create and pilot units of study
 - Teachers and administrators on the team
- i-Robot Collaboration includes Lane and BHS students



Major revision to Social Studies curriculum grades 6-9

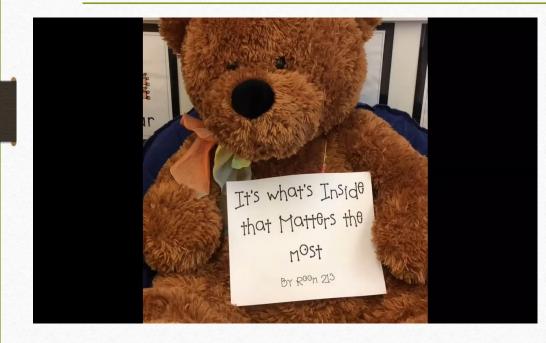
- Backward design focusing on compelling essential questions
- Integration of civic expectations and cultural proficiency
- Incorporation of Facing History resources, especially in grade 8
- Tied to 8th grade Washington DC trip
- Potential ties to ELA curriculum being explored



Continuing Focus on Common Assessments

- We will rely more heavily on district-determined assessments to monitor student progress and effectiveness of instruction as MCAS 2.0 is developed
- Work thus far determining adequate student progress suggests our measures are reliable and focus on essential skills
- Tie to learning expectations and help us to prioritize those expectations
- Help us to integrate reading, writing, speaking into all subject areas.

II. Equity and Diversity: Teaching All Students



- Develop anti-bias curriculum
 - Open Circle-Morning Meeting at Davis-Lane
 - March and summer curriculum development around picture books connected to social justice and equity
 - Create a safe learning environment in every classroom
 - Curriculum revision in ELA and Social Studies
 - Continued leadership of Equity and Diversity Committee in designing professional development

Teaching All Students

Early Targeted Interventions Leveled Literacy Intervention K-2

- Pilot program this year
- Funded in part by Title I
- Targets discrete reading skills
- Short term (14-16 week) intervention, 30 minutes, 5 days per week, 3-4 students
- Results thus far are very promising





Support Every Learner

- Integration of social-emotional learning into elementary curriculum (complements cultural proficiency work)
- Intervention-support beyond special education designation in every building (early morning literacy and Title I math at Lane; skills—math and writing—centers at JGMS; skills center, writing and math labs at BHS)
- New Special Ed programs (presented in May)



Challenge Every Learner

- Frequent formative assessments to target instruction and stretch learners
- Guiding questions with multi-layered complex answers ("real life")
- Analyze student work to inform instruction
- Greater inclusion; special programs to meet needs
- Calculus Project-JGMS and BHS
- Women in Science
- Tenacity Challenge



III. Collaborative Professional Culture



- Increased co-teaching in every school
- Instructional coaching (BHS and JGMS)
- Grade level clusters-pods-teams; grade level and department teams-PLCs
- Summer curriculum development
- K-12 Curriculum Leadership Team
- Equity and Diversity Committee
- Leadership Teams and Administrative Council work

IV. Key Areas for Growth 16-17

- Deepen cultural proficiency curriculum delivery with targeted work K-12
 - Develop role of Equity and Diversity Committee to support this work
 - Set out goals for curriculum and other professional development this spring
- K-12 Curriculum Articulation and Priorities
 - Develop role of K-12 Curriculum Leadership Team in advancing this work
 - Revise and publish learning expectations identifying instructional priorities and integration of domains (as in math-English-science schema)
 - Continue developing and refining meaningful measures, including common assessments
- K-5 ELA Curriculum Alignment-Integration
 - ELA Curriculum Leader key to this development
 - Particular attention to grade 2-3 alignment and transition from Davis to Lane