

# **BOISE-ELIOT/HUMBOLDT SCHOOL**

## **STEM Investment Plan**

Written by:  
Kylene Parks, BEH TOSA  
BEH Inquiry Team  
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### **Vision Statement:**

To understand and foster the development of human communities and the environment, through the lens of Place, Race and Justice.

STEM education is active and has student-centered learning at its core. Through a focus on inquiry based instruction we seek to build a STEM program that focuses on integrated units of study that are place-based and relevant to our students and community.

**Student Outcomes 1, 2, & 5:**

**Students will demonstrate proficiency in adaptive strategizing skills and persistence in the face of academic challenges, obstacles, and setbacks (Affective: Constructive Coping)**

**Students demonstrate high quality participation in academic work, including effort and enthusiasm. (Affective: Academic Engagement)**

**Students will feel a sense of belonging, competency, autonomy and purpose as they view themselves and their potential to enjoy and succeed in STEM classes and careers. (Affective: Academic Identity)**

	<b>Description</b>	<b>Purpose/Articulation of Connection to Outcome</b>	<b>Timeline</b>	<b>Resources</b>	<b>Partners</b>
Strategy #1:  Teachers will intentionally build challenging inquiry activities in their units.	Teachers will create, and students will engage in hands-on inquiry lessons throughout the year plus one grade-level consistent integrated unit per year	High quality academic engagement will be achieved through student centered instruction (IP#1), activities of relevance to students lives (IP#5), and supportive teacher-student relationships.	Summer 2013 Curriculum Camp  Begin implementing units in 2013-14	Existing: Funding from Target Grant Curriculum Resources and materials STEM Center courses	Existing: Dept. of Fish and Wildlife

**Student Outcomes 3 & 4:**

Students will know a variety of problem solving strategies and tools and be able to choose and strategically use these tools.  
(Cognitive Skill: Metacognitive Skill)

Students will be able to identify, frame, and solve complex problems and apply knowledge and skills to novel problems and/or situations across STEM subjects. (Cognitive Skill: Problem Solving)

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**Purpose/Articulation of  
Connection to Outcome**

**Timeline**

**Resources**

**Partner**

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	Description	Purpose/Articulation of Connection to Outcome	Timeline	Resources	Partner
Strategy #1:  Integrated Inquiry Units	Teachers will create, and students will engage in hands-on inquiry lessons throughout the year plus one grade-level consistent integrated unit per year	High quality academic engagement will be achieved through student centered instruction (IP#1), activities of relevance to students lives (IP#5), and supportive teacher-student relations.	Summer 2013 Curriculum Camp  Begin implementing units in 2013-14	Existing: Funding from Target Grant Curriculum Resources and materials Grade-level collaboration	Existing: Dept. of Fish and Wildlife Kaiser Permanente City of Portland Clean Rivers Schnitzer Steel Industries
Strategy #2:  Science Notebooking and Expository Writing	Expository writing will be a focus as students develop their content knowledge through writing instruction. Notebooks will continue to be used PreK-8 <sup>th</sup> grade as a place to document STEM content, inquiry projects, and integrated units.			Existing: Already collect on-demand writing samples each quarter District provided writing curriculum  Needed: Continued professional development in notebooking strategies	

**Teacher Outcomes:**

**Teachers will facilitate active engagement of students in their learning. (Instructional Practice #1)**

**Teachers will emphasize deep content knowledge and higher-order cognitive skills by addressing learning goals in both areas. (Instructional Practice #2)**

**Teachers will use frequent formative and summative assessments to facilitate diagnostic teaching and learning. (Instructional Practice #4)**

**Teachers implement learning activities that students find to be relevant, important, worthwhile, and connected to their cultural lives. (Instructional Practice #5)**

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Strategy #1:

