Link to Online Presentation
Embracing Diverse Learners in Grand Island Public Schools

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Every Standard, Every Student, Every Day, A Success!

Making the Science Standards Accessible to All Students in Grand Island Public Schools

Structures and Supports:
- Program Level
- Instructional Level
Current Challenges at GIPS

Call to action:

- NeSA Science Scores
- Ethnicity - minority/majority district
- Diverse Learners
- Graduation Data
- Workforce needs
  - Non Traditional Students (females) in science related Career Fields (engineering)
NeSA Science Data

Chart title

- Grade 5
- Grade 8
- Grade 11

<table>
<thead>
<tr>
<th>Year</th>
<th>Grade 5</th>
<th>Grade 8</th>
<th>Grade 11</th>
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</thead>
<tbody>
<tr>
<td>2011-12</td>
<td>47%</td>
<td>61%</td>
<td>68%</td>
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<tr>
<td>2012-13</td>
<td>40%</td>
<td>54%</td>
<td>61%</td>
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<tr>
<td>2013-14</td>
<td>47%</td>
<td>61%</td>
<td>68%</td>
</tr>
</tbody>
</table>
English Language Learners Served

- 2011-2012
- 2012-2013
- 2013-2014
- 2014-2015

ELL Monitor
ELL Actively Served
Addressing the Challenges

Creating “Equitable Learning Opportunities” For Non-Dominant Student Groups - Lee and Buxton (2010)

• Value and respect the experiences that all students bring from their backgrounds (e.g., homes or communities)

• Articulate students’ background knowledge (e.g., cultural or linguistic knowledge) with disciplinary knowledge

• Offer sufficient school resources to support student learning
Program Level

Career and College Ready Standards - RIGOR

- NGSS Adoption
- Elementary Science Alignment issues
- STEM
  - middle school STEM lab
- high school Career Pathways Institute
- Rigor, Relevance, and Relationships
- Naviance
- Personal Learning Plan (8th grade)
Program Level

Culture and Climate SIP Goals - Building Relationships
- Diana Browning-Wright
  - Effective monitoring and interventions for diverse learners
- Well Managed Schools
- Islander Summit - High School
- Purple Hands Assembly - Middle School
Program Level

Resource Adoption

● Cycle
● Middle School Science, Technology, Engineering, and Math Labs (STEM Lab)
● Online Resources
  o high school - CINCH Learning
  o middle school pilot - Successnet
● One-to-One Initiatives
● Advanced Placement Science Courses
Program Level

Science for English Language Learners

● Co-taught Classes - High School
● STEM Lab/Classroom Combination
● English Language Learners in Science at Elementary
Program Level

Professional Learning for Teachers

- Instructional Coaches
  - Science and Math
  - Co-teaching
  - Learning Facilitator (Literacy, RtI)

- NGSS - Science Task Force

- Cave, Campfire, Watering Hole, Mountain Top
Program Level

Professional Learning for Teachers

- Collaborative Planning
  - Early Release Wednesdays
  - Focused Planning
  - Curriculum Instruction and Assessment

- Conference Attendance/Presentation
  - Nebraska Association of Teachers of Science
Instructional Level

- Marzano’s 41 Elements of Instruction
  - Becoming A Reflective Teacher
- Formative Assessment Process/Backward Design
  - Clear Learning Targets/Scales
  - Sheltered Instruction - Language Targets
  - Checks for Understanding
  - Goal Setting and Feedback
  - Differentiated Instruction - Wormeli
Instructional Level

- Collaborative Lesson Planning
  - Lesson Plan Database - Curricuplan
  - MPIES - Activity Before Content
  - Addressing Student Preconceptions - Keeley
  - Building Background
  - Summarization in Any Subject - Wormeli
  - McRel’s 9 Instructional Strategies - Similarities/Differences
  - Anne Beninghof - Planning for Diverse Learners
  - Structured Interactions - a.k.a. Cooperative Learning
Literacy
Learning Facilitators/Coaches
● Reading in the content areas
  o Reading Process - Before, During, After
  o Text Structure
  o Marzano’s 6-step Process for Academic Vocabulary
    ▪ Vocabulary Reading Science Text Cards
  o Science Graphic Organizers
● Writing
  o Writing Process
Informal/After School

Outdoor Education
Service Learning

- GI Roots & Shoots
- Sustainable Schoolyard Project
Science for all students, including non-dominant student groups, will require shifts in the educational support system.

Key components:
- teacher preparation and professional development,
- principal/administrative support and leadership
- public-private-community partnerships
- formal and informal classroom experiences
  - coordination among community stakeholders
  - technological capabilities
  - cyber-learning opportunities
  - access to digital resources (online learning communities, virtual laboratories)
Link to Online Presentation