Catalyzing STEM success for the next generation of Oregonians

Melissa Dubois, Director, South Metro Salem STEM
Craig Hudson, Garmin, SMSP Advisory Co-Chair

Proudly hosted by Oregon TECH
Core Strategy 1
Authentic STEM Learning:
Connect educators and students with community resources and industry expertise

Core Strategy 2
Sharing best practices:
Develop a STEM Leadership Team of teachers and community partners

Core Strategy 3
Accelerate Learning:
Expand STEM Accelerated Credit Opportunities

2014-25
Increase Participation, Persistence, and Achievement in STEM across all ethnic/cultural and/or socioeconomic background, limited English language proficiency, gender, or disability

By 2025
• Increase the percentage of students that are Math and Science Proficient
• Increase STEM college graduation/certification rates

Beyond 2025
• Improve Oregon business access to Oregon-educated STEM talent
• Support our communities with highly-skilled Oregon graduates who have access to family-wage jobs, are scientifically literate, and engaged in their communities.

Making connections for student success
the next-generation, web-based tool connecting K-20 educators with STEM professionals
Solar Energy & Math Week

STEM Camps/Workshops

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**Description**

Eureka! camp in Woodburn is in its first year. We are serving 24 girls from the Woodburn district as they transition from 7th grade to 8th grade. The program is 50% STEM focused, 25% physical activity, and 25% personal development. The personal development component is provided by Girls Inc in research backed curricula. Both facilitators of the camp have science backgrounds and are able to explain concepts to youth, although the hope is to connect to professionals in the field to allow youth to explore more via discussion.

**Key Questions**

What activities would you recommend to introduce youth to complex math problems?

What are some activities that are hands-on and fun relating to solar energy?

**Expected Outcomes**

Open discussion with youth about topics as well as fun games.

**Address**

Chemeketa Woodburn 120 E Lincoln Street

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**Visit Date**

07/20/2015 01:11 PM

America/Los_Angeles

**Requester**

Yenni Cazares
Girls Inc of the Pacific Northwest

**Providers**

Chaun MacQueen

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*[Icons and buttons for communication and support]*
Statewide Expansion

- State-wide expansion Summer 2016, funded by Employment Department of Community Colleges and Workforce Development (CCWD) and the Oregon Department of Education (ODE) in partnership with Workforce Boards
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Making connections for student success
Sharing Best STEM Instructional Practices

**Stage 1**
- Improving Classroom Practice: Developing shared STEM units
- Internalizing the Attributes Framework
- Building leadership
- Contributing to design of district STEM Implementation Plan

**Stage 2**
- Ambassadors: Sharing STEM Framework within district
- Contributing to district professional development and STEM plans
- Assuming leadership within district and partnership

**Stage 3**
- Ambassadors: Sharing STEM Framework
- Contributing and leading district professional development/STEM plans
- Assuming increased leadership within partnership
SMSP STEM Attributes Framework

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<thead>
<tr>
<th>Description</th>
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<tbody>
<tr>
<td>Integrates Science, Technology, Engineering, and Math.</td>
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<td>Develops communication and literacy skills.</td>
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<td>Provides authentic, real-world experiences through contextual learning (may include active citizenship).</td>
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<td>Forms partnerships with business, industry, agencies, and nonprofits (may occur outside the school).</td>
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<td>Provides career awareness through postsecondary and career relevant connections.</td>
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<tr>
<td>Fosters problem-solving, critical thinking, and argumentation skills through inquiry and design.</td>
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<td>Includes effective instructional strategies that develop collaboration and teamwork.</td>
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<td>Uses equitable instructional practices that are inclusive to all students regardless of gender, disability, ethnicity, race, language, socioeconomic status, gender identity and sexual orientation.</td>
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<td>Uses standards-based performance/proficiency assessments.</td>
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Making connections for student success
Accelerated Credit

• Increasing STEM dual credit opportunities, and increasing underrepresented students in existing offerings

• Supporting high school-college transitions

• Collaborative marketing materials to increase enrollment across all demographics.

• Supporting coordinated outreach to students and families, reaching down to middle school
Accelerated Credit
Big Wins

- Changing cultures, cultures of accountability
  - Clackamas CC, Accelerated Credit, District Implementation Plans
  - Leading the statewide STEM Hub Network (STEMOregon)

- Programming:
  - Oregon Connections: Connected with other hubs, Workforce Investment Boards. Scaling statewide.
  - Teacher Leadership: Broad enthusiasm

- Creating STEM leaders and ambassadors
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<th>Industry Partners</th>
<th>Community Partners</th>
<th>School Districts and ESDs</th>
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<td>Autodesk</td>
<td>Business Education</td>
<td>Amity SD</td>
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<td>Eaton</td>
<td>Compact</td>
<td>Canby SD</td>
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<td>First Tech Credit Union</td>
<td>Evergreen Aviation and Space Museum</td>
<td>Central SD</td>
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<td>FLIR Systems</td>
<td>Mad Science of Portland and Vancouver</td>
<td>Dallas SD</td>
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<td>Garmin AT</td>
<td>MESA (Math Engineering Science Achievement)</td>
<td>Dayton SD</td>
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<td>Intel</td>
<td>NASA Space Grant</td>
<td>Gladstone SD</td>
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<td>Legacy Meridian Park Hospital</td>
<td>MESA (Math Engineering Science Achievement)</td>
<td>Lake Oswego SD</td>
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<td>Mentor Graphics</td>
<td>Consortium</td>
<td>McMinnville SD</td>
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<td>PGE Foundation</td>
<td>Oregon ASK (After School for Kids)</td>
<td>Molalla River SD</td>
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<td>Newberg SD</td>
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<td>Tualatin Chamber of Commerce</td>
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<td>Community Colleges</td>
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<td>Chemeketa Comm College</td>
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<td>Universities</td>
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<td>Clackamas CTE Consortium</td>
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<td>Oregon Tech</td>
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<td>Pacific University</td>
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<td>George Fox University</td>
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