



JIM PIRO, Chair

AUBREY CLARK

HERB FRICKE

LISA GRAHAM

DWAYNE JOHNSON

ERIC MESLOW

THOMPSON
MORRISON

Staff:

MARK LEWIS

STEM - Data & Metrics Subcommittee

November 19, 2015

3:00pm – 5:00pm

2 World Trade Center

Palza Conference Room

121 SW Salmon St., Portland

Call-In Information:

Dial (888) 204 5984

Code 992939

MEMBERS: Lisa Graham (Chair), Jim Piro

AGENDA

1. **Welcome**
2. **Review Progress to Date**
3. **Priority Metrics Discussion**
4. **Work Plan Development**
5. **Public Comment**

Members of the public wanting to give public testimony must sign in.

There will only be one speaker from each group.

Each individual speaker or group spokesman will have three (3) minutes.

All meetings of the Chief Education Office are open to the public and will conform to Oregon public meetings laws. The upcoming meeting schedule and materials from past meetings are posted online. A request for an interpreter for the hearing impaired or for accommodations for people with disabilities should be made to Seth Allen at 503-378-8213 or by email at Seth.Allen@state.or.us. Requests for accommodation should be made at least 48 hours in advance.

DEEPENING STEM/CTE AWARENESS IN OREGON: A MARKETING STRATEGY, MESSAGING FRAMEWORK & PLAN

Opportunity statement: STEM and CTE related career pathways represent some of the greatest untapped opportunities to engage Oregon students and improve individual, community and state prosperity.

Vision: This plan seeks to align Oregon STEM/CTE ambassador activities for the purpose of creating additional access, resources, and opportunities for Oregon students to engage in experiential and applied learning in the classroom and beyond.

Strategies:

- 1) Create a unified STEM message in Oregon
 - a. Develop compelling, memorable and consistent key messages primary audiences for use in existing and new materials development
 - b. Provide marketing, communications and community engagement strategies for target audiences to use
- 2) Activate community programs/initiatives like STEM Hubs and out of school time providers to localize messaging and outreach to students and families.
- 3) Bring new business case and unified message to life through unified, broad based media campaign

Objective: Build a sense of urgency and support for STEM as a critical opportunity to create individual, community, and state prosperity by:

- Articulating the value of STEM and CTE for each key audience.
- Equipping people who communicate about STEM and CTE with tools to connect with their key audiences and constituencies in a meaningful way.
- Addressing the needs of each audience in a way that persuasively informs them about STEM and CTE value and inspires action.

Advocates/Influencers (who can carry the message): Governor, Key Legislators, STEM Hubs, Institutions, Agency Directors, Workforce/industry (Workforce Boards, Employment, STEM/CTE Coalition), Lobbyists/Advocacy groups (Chalkboard, Stand for Children), Teacher leaders/CTE coordinators.

Audiences (who are the targets of our messages and what do we want them to do?):

Primary:

- Educators, school boards, administrators, OEA, COSA, etc.)
- Policy makers and legislators

Secondary:

- Students (poverty, rural, communities of color, women)
- Families

Framing:

- Concerns/needs (what does the audience care about?)
- Desired goal/action (Why are we marketing to them? what do we want them to do or believe?)
- Messages (what bridges their concerns/needs and will compel them to action?)
- Influencers (who do they listen to?)
- Strategies (who and how are the messages delivered?)

Audience	Concerns/Needs	Goals	Influencers	Message Framework	Potential Strategies
<p style="text-align: center;">Students (Especially underserved and underrepresented)</p>	<ul style="list-style-type: none"> • How does learning connect with the real world/my future? • Creating a sense of identity: what am I good at and how can I contribute to the greater good? • Where am I going and how do I get there? • Play & exploration: physical and virtual, group, individual, structured and unstructured • Peer belonging / fear exclusion (MS) • 	<ul style="list-style-type: none"> • Make STEM cool! Increase interest in STEM-CTE pathways; specific emphasis on underserved and underrepresented communities • Increase awareness of STEM-CTE futures as opportunities in Oregon across all student groups to earn good salary, activate their creativity and leverage their capacity to contribute • Inspire students to be innovators and entrepreneurs – to take risks • Create peer pressure, peer support, peer acceptance of STEM as viable 	<ul style="list-style-type: none"> • Parents • Teachers • Peers • Media: social, ads, internet • Higher education • Guidance counselors • Extra-curricular clubs and affinity groups • Faith-based orgs 	<ul style="list-style-type: none"> • Students of color: viable opportunity that exists for you. • Here are exciting career potentials and the ways you can get there: 2-year / 4-year apprentice programs, internships • Your education has value in taking you there. • STEM/CTE jobs are exciting and give you an opportunity to use your talents for the greater good and your individual good • Unleash your potential, channel your creativity... • High school is not enough: High-wage jobs require some post-secondary learning 	<ul style="list-style-type: none"> • Aligned media campaign from Oregon STEM industry sectors and institutions with aspirational images of students of color and girls. • More media coverage of STEM events and activities with leaders and participants that all students can relate to/see themselves in • Mailings to parents... not just colleges though. • Social media campaign • More interactions with STEM employees. • Strengthen career website info • Peer to peer storytelling; students shares experience in applied learning program or opportunity

Audience	Concerns/Needs	Goals	Influencers	Message Framework	Potential Strategies
<p style="text-align: center;">Parents (esp underserved and underrepresented)</p>	<ul style="list-style-type: none"> • Futures of their children • Their own jobs and employment opportunities • Economic growth in their community • Global issues: global warming, energy, food security • An informed populace • Over-testing 	<ul style="list-style-type: none"> • Guide children and youth in the direction of their interests and talents, particularly CTE-STEM areas. • Demand more applied-learning from schools. • Volunteer their time to support STEM activities in and out of school. • Ask their legislators to vote for CTE-STEM funding and policies. 	<ul style="list-style-type: none"> • Their kids • Media • Employers • Local leaders and politicians • Social network • School leaders and teachers • Community-based orgs: PTAs, religious orgs • Other parents 	<ul style="list-style-type: none"> • STEM jobs earn more • STEM is about applied learning—more meaningful and engaging • Education is a collective responsibility; we need to do this together • The world is increasingly complex; kids need the skills to address and solve global problems • High school is not enough: High-wage jobs require some post-secondary learning • STEM and CTE offer tremendous opps to impact their community in positive ways • Community prosperity • Parents as career guides for their kids 	<ul style="list-style-type: none"> • Strengthen career website info • Have direct mailings from colleges to families • Media campaign to increase awareness • TV spots targeting kids: Grow it our own • Partnerships with community based orgs to get messaging/storytelling out • Parent to parent communication/storytelling: student engagement increase w/applied learning opportunities

Audience	Concerns/Needs	Goals	Influencers	Message Framework	Potential Strategies
K-14 Educators	<ul style="list-style-type: none"> • Not enough time • Feeling isolated • Too much noise in system • How do I do project-based learning? How content is applied? • Some fear science and math • Misconceptions of STEM as for gifted and college-bound • Standards implementation 	<ul style="list-style-type: none"> • Change their practice to more applied learning and less about bits of information • Interact more with STEM-CTE employees • Give positive messages to girls and students of color • Better understand STEM-CTE careers • Integrate across content areas. • De-privatize practice. 	<ul style="list-style-type: none"> • Peer teachers • Union • Parents • Principals & Boards • Social network • Media 	<ul style="list-style-type: none"> • Applied learning is more meaningful, more fun, and more effective! • STEM-CTE engages students and decreases management issues. • STEM-CTE increases graduation rates. • STEM skills are essential to all students • Engaged learners succeed • In 2011, only 45 % of U.S. high school graduates were ready for college work in math, 30 percent were ready in science. Experiential learning that can be applied to real life situations through STEM/CTE can help deepen student engagement and mastery of math and science. 	<ul style="list-style-type: none"> • Interact more with STEM-CTE employees • Stories from students about how STEM/CTE learning engages them, connects them to the real world • Collect “greatest hits” of project based learning from educators and share with other educators as a tool to inspire + support increased experiential learning.

Audience	Concerns/Needs	Goals	Influencers	Message Framework	Potential Strategies
<p style="text-align: center;">Administrators, School boards, and professional orgs</p>	<ul style="list-style-type: none"> • Initiative fatigue – STEM as yet another acronym • Accountability and assessment pressures • Improve graduation rates • Teacher engagement and support • Lots of “noise” in the system... competing expectations • Standards implementation 	<ul style="list-style-type: none"> • Create building-level cultures supporting engaged, applied learning. • Support “risk-taking” amongst staff and give them permission to try new approaches • Strengthen connections between schools, educators, and community partners/industry. • Have them emphasize critical thinking, problem solving and other 21st century skills as much (or more) than test scores. 	<ul style="list-style-type: none"> • Parents • Union • Peers • Students • Teachers (?) 	<ul style="list-style-type: none"> • Address time/capacity issues for educators • Applied learning is more meaningful, more fun, and more effective! The best way to learn STEM/CTE is to do it! • STEM skills are essential to all students • STEM-CTE engages students and educators. • STEM-CTE increases graduation rates, AND improves achievement scores. • Community resources and volunteers can support both teachers and students. <p>DATA:</p> <ul style="list-style-type: none"> • In 2011, only 45 % of U.S. high school graduates were ready for college work in math, 30 percent were ready in science. Experiential learning that can be applied to real life situations through STEM/CTE can help deepen student engagement and mastery of math and science. 	<ul style="list-style-type: none"> • Presentations/workshops with COSA and OSBA. Use peers and students whenever possible. • More exposure to districts and schools who are making the shift. Focus on what works. Storytelling. • Emphasis from Chief Ed Officer and ODE on student engagement and outcomes that are more than test scores.

Audience	Concerns/Needs	Goals	Influencers	Message Framework	Potential Strategies
Legislators & policymakers	<ul style="list-style-type: none"> • Lack of state revenue • Jobs for constituents. Talent for businesses. • Economic prosperity for their constituents and communities • Strong, world-class education system • Increased graduation rates / student success • 40/40/20 • Return on investment • Insight about outcomes in advance • A sense that this matters to their constituencies 	<ul style="list-style-type: none"> • Create policies that support STEM and CTE • Increase investments • Establish sustainable funding • Feel passionate about the STEM mission • Feel a sense of urgency about STEM • Understand that short-term investments lead to long-term gains 	<ul style="list-style-type: none"> • Constituents: Parents, businesses, community leaders • Lobbyists • Agencies • Governor • Peers 	<ul style="list-style-type: none"> • Creating opportunities for students to have hands-on, applied learning experiences is a critical pathway to high-demand, rewarding, living-wage jobs • Demand for STEM is growing; occupations related to STEM are projected to more than double in the next eight years; in the past 10 years STEM jobs have grown three times faster than non STEM jobs • Oregon businesses can't find talent • STEM = higher employment • Innovation drives economic growth • Higher wage = higher revenue for the state • STEM is important in each and every community in OR, including rural • Oregon is a STEM leader nationally 	<ul style="list-style-type: none"> • Connect them to the STEM HUBs in their districts and get them involved • Oregon Business Leadership Summit: Present there • Business community advocacy • Publish more local success stories • Get national press about OR STEM leadership • Frequent comms from the Governor's office about STEM & CTE • Collect student stories/data from target communities to share with legislators/policymakers • STEM Council Advocacy