

Transforming Science and Math Teaching and Learning in Washington State



What Is the Problem?

Developing

The Foundation

Standards

- Rigorous
- Balanced

Assessments

- Statewide
- End of course
- Classroom based

Curriculum

- Content-rich
- Aligned materials

Fragmented

Delivery System

Recruitment

- Financial incentives
- Traditional routes
- Alt. routes
- Teach for America; New Teacher Project

Induction

- Mentoring
- More swimming, less sinking

School Models

- STEM schools
- Programs of study

Accountability

- Data system
- Tenure
- Evaluation

Training

- Preservice
- Credentialing
- Inservice
- Professional development

Retention

- Pathways
- Professional Learning Communities
- Resources

Time

- Money
- Flexibility
- Creativity

What We Have: Disconnected Efforts



What We Need: Coherence & Alignment



Vision

Washington is thriving in the integrated global economy. Residents enjoy individual success and prosperity.

Washington students have the ability to create, design, innovate and think critically to solve complex challenges. They have outstanding math and science skills—and they are excited to use their knowledge in the real world.

What Success Will Look Like

Every student will be:

- Engaged by rigorous, real-world instruction
- Better prepared for success in college, work and life

Every classroom and school will have:

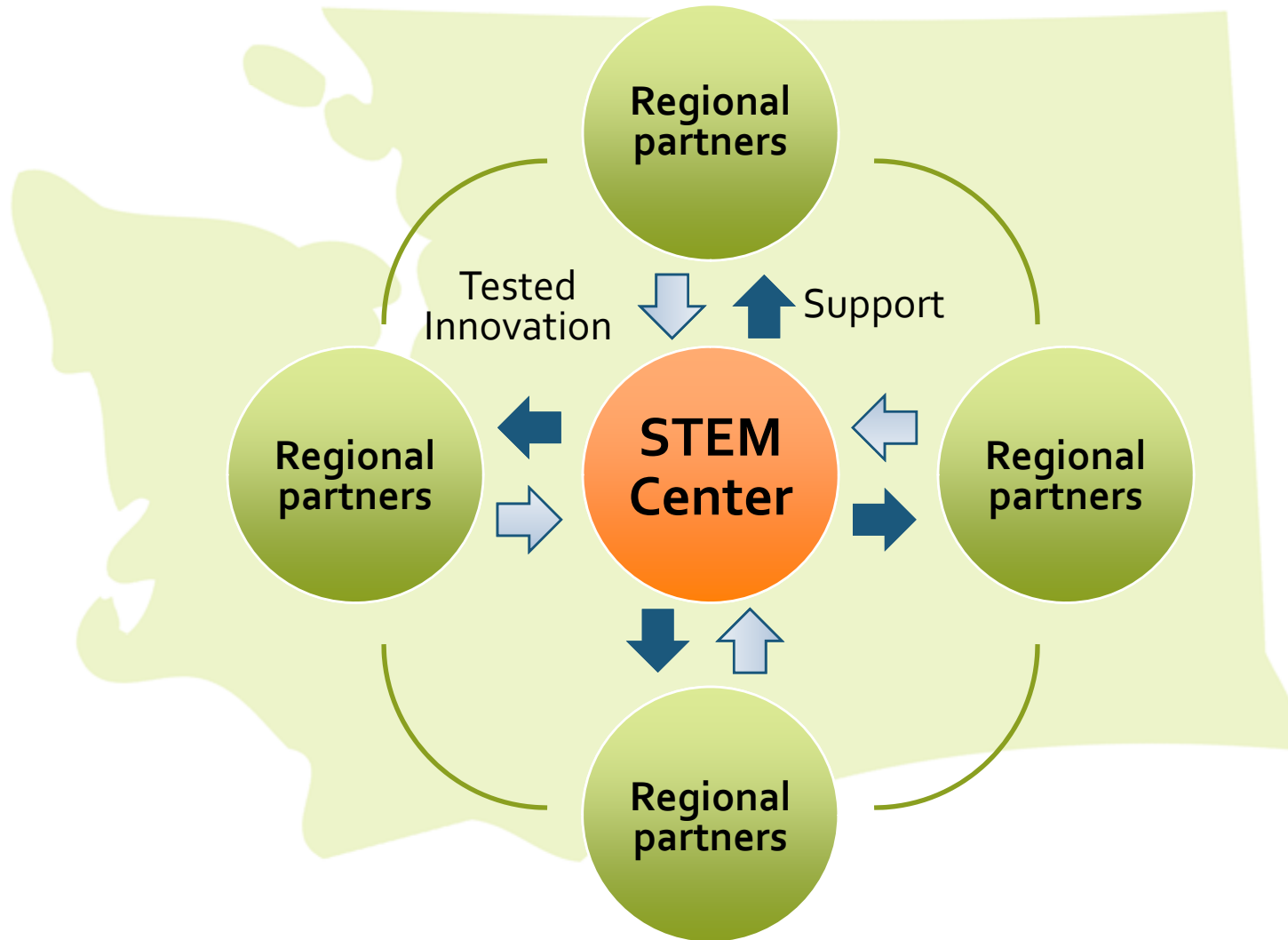
- Better prepared and supported teachers
- Rigorous, inquiry-based STEM instruction

Across Washington, there will be:

- Sustained focus, coherence and coordination
- Effective use of resources
- Innovation
- Networked best practices



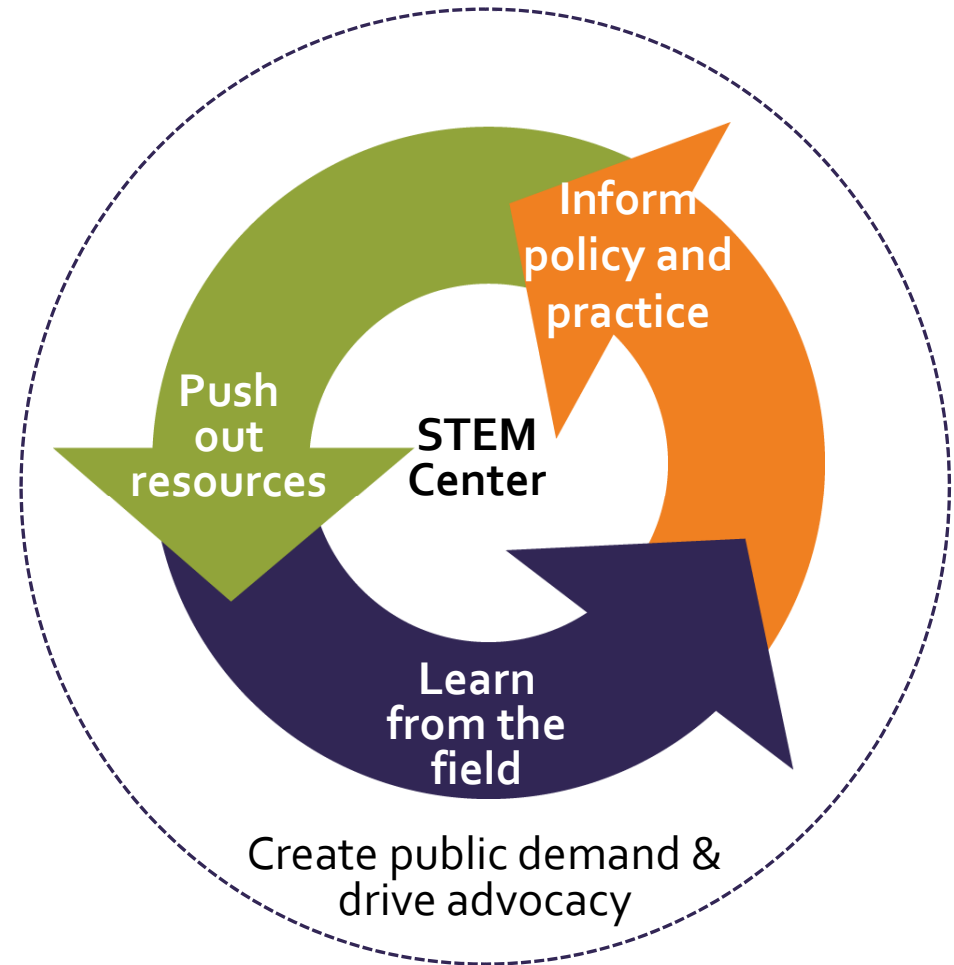
How It Will Work: A Learning Network



Strategy: Transform Teaching & Learning

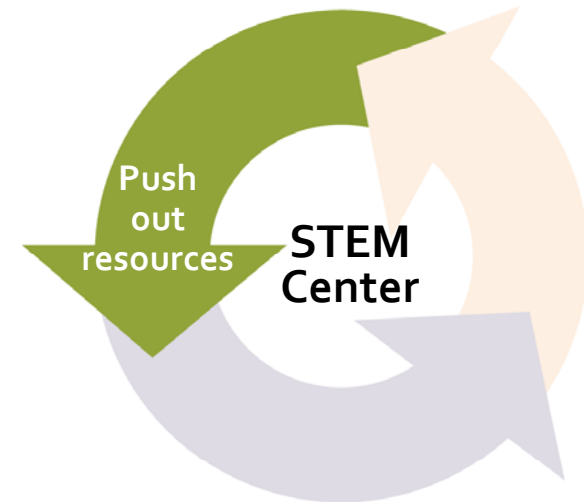
Establish a statewide 501c3 STEM Center with world-class talent and resources to:

- Sponsor innovations;
- Increase teacher effectiveness;
- Design and deliver enabling resources; and
- Accelerate improvements in math and science achievement.



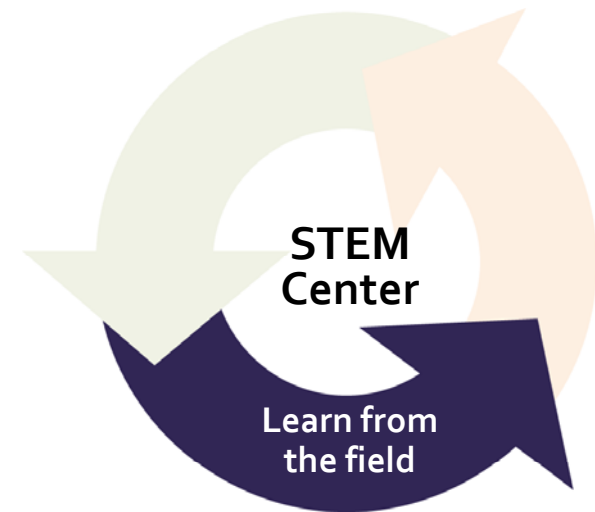
I. Push Out Resources

- Award regional grants.
- Create aligned and powerful strategies for teaching and learning at each grade level.
- Deliver high-quality technical assistance and materials through a network of high-profile affiliated/aligned providers.
- Amplify and accelerate use of promising practices.



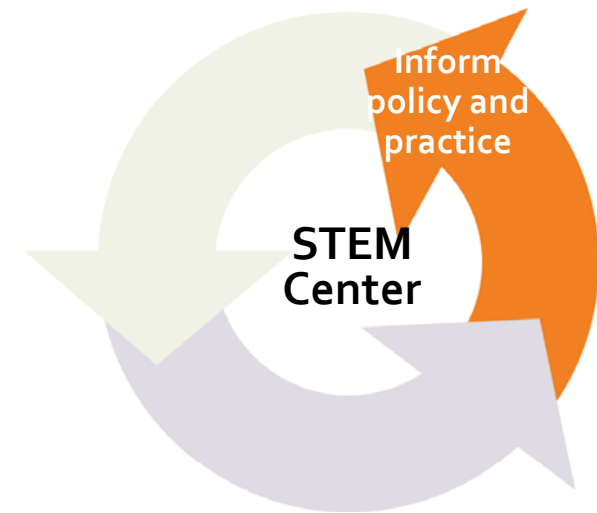
II. Learn from the Field

- Regional STEM initiatives:
 - STEM platform schools
 - Effective, content-rich STEM instruction
 - New teaching practices and ways of hiring, evaluating, retaining and training teachers
 - K-12, higher education and industry partners (e.g., health care in Spokane, renewable energy in Moses Lake)
 - Substantial community engagement and student supports (e.g., internships, R&D capacity at universities)
- Identify gaps in service delivery and inefficiencies.



III. Inform Policy and Practice

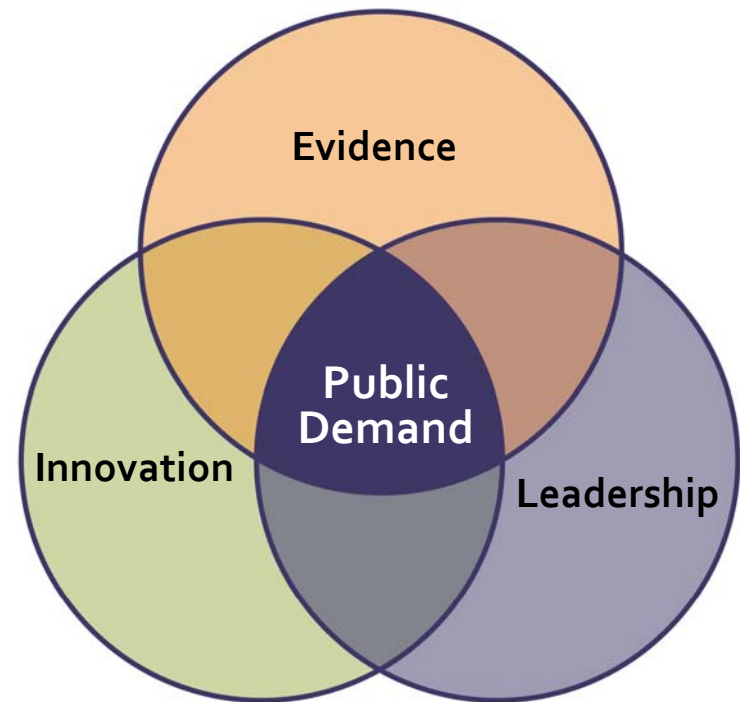
- Make evidence-based decisions.
- Allocate federal, state and local funds effectively.
- Transform systems to support teacher effectiveness.
- Support policies that promote rigor, quality and coherence of learning.



IV. Stimulate Public Demand

Collaborate with Partnership for Learning and others to:

- Deepen awareness of the importance of math and science for all students;
- Build political will and leadership; and
- Network and communicate about proven innovations.



Ongoing Discussions

- **Center Vision, Mission and Strategies**
- **Setting Direction for the Key Strategies**
- **Engaging Needed Expertise in Program Design**
- **Communication Strategies and Community Outreach**
- **Securing Operating Funds to Launch the Initiative**
- **Building Leadership: Governance, Board of Directors, Executive Director**
- **Monitoring outcomes and impact**

Outreach Strategy

- Advisor Liaisons
- Executive Advisors
- National Advisors
- Statewide Advisors
- Regional Advisors

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Outreach Strategy

Advisor Liaisons

- Representative of key stakeholder groups and regional communities
- Diverse knowledge and expertise
- Design outreach strategies that will engage key stakeholders within each advisory groups
- Ensure that key stakeholders are engaged, input is collected, and that the input is incorporated into program design

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Outreach Strategy

National Advisors

- Highly credible and respected of leaders
- Provide critique of emerging program design
- Offer insights to address most pressing challenges
- Forget connections with existing programs and resources with demonstrated effectiveness

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Outreach Strategy

Executive Advisors

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- Offer counsel, design contributions, partnership opportunities, and financial resources

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Outreach Strategy

Statewide Advisors

- Leaders from education, business, technology, policy and communication
- Inform the design, scope, and scale of the STEM initiative
- Build and enhance prior and current work within the context of the Initiative

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Outreach Strategy

Regional Advisors

- Engage regional leaders from business and education
- Provide information about local and regional contexts
- Inform differentiation strategies necessary for effective statewide implementation

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Outreach Strategy

Regional Support Teams

- ESD Superintendent or Assistant Superintendent
- Local/Regional Business or Industry Leader
- Local/Regional Community Leader
- Math Specialist
- Science Specialist
- Technology Specialist

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Questions, Comments, Suggestions...

Website

For updates and to submit comments

www.partnership4learning.org/stem

Real, live person

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