St Vrain Valley Schools
i3 Final Performance Report

Appendices to the Executive Summary

December 2015
# Appendices Table of Contents

<table>
<thead>
<tr>
<th>Appendix A</th>
<th>EPI Student Outcomes Report</th>
<th>See Exec Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appendix B</td>
<td>STEM by Design Model</td>
<td>Page 3</td>
</tr>
<tr>
<td>Appendix B.1</td>
<td>STEM Conversation Starter</td>
<td>Page 4</td>
</tr>
<tr>
<td>Appendix C</td>
<td>Summer Sample Planning</td>
<td>Pages 5-7</td>
</tr>
<tr>
<td>Appendix D</td>
<td>PTECH Draft Application</td>
<td>Pages 8-25</td>
</tr>
<tr>
<td>Appendix E</td>
<td>Video and News Links</td>
<td>Page 26</td>
</tr>
<tr>
<td>Appendix F</td>
<td>Next State of Learning PowerPoint</td>
<td>Pages 27-34</td>
</tr>
<tr>
<td>Appendix G</td>
<td>Next State of Learning Press Release</td>
<td>Pages 35-36</td>
</tr>
<tr>
<td>Appendix H</td>
<td>District Design Challenge</td>
<td>Page 37</td>
</tr>
</tbody>
</table>
STEM BY DESIGN
SEEING STEM IN OUR STUDENTS AND OUR SCHOOLS

INTEGRATION
DISSOLVING BOUNDARIES BETWEEN CONTENT AREAS
Instruction: Science, Technology, Engineering, & Math concepts and standards in core classes, application of knowledge
Planning: Colorado Academic Standards, Tier 1 Instruction, Teaching Learning Cycle, SIOP strategies, alignment
Technology: Instruction and creation through a variety of tools
Assessment: Data-driven instruction, performance assessment, formative assessment

PROBLEM SOLVING
SEEING CHALLENGES AS OPPORTUNITIES
Design Thinking: Empathy, Define, Ideate, Prototype, Test / Feedback
Inquiry: Driven by essential question or problem

21ST CENTURY SKILLS
GOING BEYOND THE MEASURABLE
Skills: Creativity, Critical Thinking, Collaboration, Communication, Character
Traits: Building resilience, learning from failure, giving and receiving valuable feedback, backing up claims with evidence, presenting and communicating findings, and applying knowledge to unique problems

PERSONALIZED LEARNING
HAVING A SAY IN WHAT AND HOW WE LEARN
Student Agency: Academic, Personal, Professional, Entrepreneurial, and Civic Competencies
Student Voice: Following curiosity, student-driven inquiry, student leadership & ownership, teacher as facilitator
College & Career Readiness: College in Colorado, Individual Career and Academic Plan (ICAP)

CONNECTION
BUILDING RELATIONSHIPS WITH PEOPLE, PLACES, AND PROFESSIONS
Academic: Connecting learning with real-world applications
College & Career Awareness: Mentors, STEM Career Connections
Community: Both local and global, Outreach and Partnerships, Family Connections and Involvement
### ESSENTIAL LEARNING/ENDURING UNDERSTANDING/CENTRAL IDEA:

What is it and how is it known?

### INTEGRATION:

How does the lesson dissolve boundaries between content areas?

- Interdisciplinary instruction with application of knowledge
- Backwards planning
- Technology
- Assessment

To Think About:

### PROBLEM SOLVING:

How does the lesson present problems/design challenges as learning opportunities?

- Design thinking process
- Inquiry driven by essential question / problem

To Think About:

### 21st CENTURY SKILLS:

How are students going beyond the measurable?

- Creativity, Collaboration, Critical thinking, Communication, Character

To Think About:

### PERSONALIZED LEARNING:

How are students having a say in what and how they learn?

- Student agency
- Student voice
- College & career readiness

To Think About:

### CONNECTION:

How does the lesson help in building relationships with people, places, and professions?

- Academic / real world connections
- College & career awareness
- Community

To Think About:

### WHAT ELSE:

To Think About:
# Summer Curriculum: Solar System

**Unit Objectives:**
Students will understand the composition and importance of the Solar System and its exploration.

**Curriculum Resources:**
- Seeds of Science- Planets & moon
- EiE Adventures- Liftoff: Engineering Rockets & Rovers

### 12 Day Overview

<table>
<thead>
<tr>
<th>Day 1</th>
<th>Day 2</th>
<th>Day 3</th>
<th>Day 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Background: Understanding Rotation &amp; Orbit</td>
<td>Background: Components of the Solar System</td>
<td>Background: Planet Characteristics</td>
<td>Background: Planet Characteristics</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Day 5</td>
<td>Day 6</td>
<td>Day 7</td>
<td>Day 8</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Day 9</td>
<td>Day 10</td>
<td>Day 11</td>
<td>Day 12</td>
</tr>
<tr>
<td>EiE Adventures: Adventure 3- Designing a Rover</td>
<td>EiE Adventures: Adventure 4- Creating Rockets</td>
<td>EiE Adventures: Adventure 5- Improving Rocket &amp; Group Consultation</td>
<td>EiE Adventures: Adventure 6- Rocket Presentations &amp; Showcase</td>
</tr>
</tbody>
</table>

### Daily Lesson Outline

**Day 1**

**Objective**
Students will be able to explain and show the difference between the words rotation and orbit.

**Materials**

**Literacy Connections**  
**STEM Investigation Lesson**

<p>| Seeds of Science: Planets &amp; Moons- 1.8 Book: <em>Spinning Through Space</em> Vocabulary: rotate, Solar System, planet, spin, orbit | Seeds of Science: Planets &amp; Moons- 1.10 Vocabulary: rotate, spin, orbit, sphere |</p>
<table>
<thead>
<tr>
<th>Day 2</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective</td>
<td></td>
</tr>
<tr>
<td>Students will understand the structure and size of the Solar System.</td>
<td></td>
</tr>
<tr>
<td>Materials</td>
<td></td>
</tr>
<tr>
<td><strong>Literacy Connections</strong></td>
<td><strong>STEM Investigation Lesson</strong></td>
</tr>
<tr>
<td>Seeds of Science: Planets &amp; Moons- 2.8 Book: <em>How Big is Big? How Far is Far?</em></td>
<td>Seeds of Science: Planets &amp; Moons- 2.6 &amp; 2.7 Workbook: pgs. 47-49</td>
</tr>
<tr>
<td>Vocabulary:</td>
<td>Vocabulary:</td>
</tr>
<tr>
<td>Independent Work: Workbook: Citing Evidence pgs. 52-54</td>
<td></td>
</tr>
<tr>
<td><strong>Additional Resources, Math/Technology Connections, or Additional Design Challenges</strong></td>
<td></td>
</tr>
<tr>
<td>Scale Models of the Solar System: <em>Scale of Planetary Distance for Outside RAFT Planet Beads Activity If the Moon was just a Pixel Online Scale Solar System Scope</em></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Day 3</td>
<td></td>
</tr>
</tbody>
</table>
### Objective

Students will understand that objects in the solar system are classified by their characteristics that scientists have observed and studied.

### Materials

<table>
<thead>
<tr>
<th>Literacy Connections</th>
<th>STEM Investigation Lesson</th>
</tr>
</thead>
</table>
| Seeds of Science: Planets & Moons- 3.2 & 3.3 Book: *What About Pluto?*  
Synthesize information from *What About Pluto?* to create a list of what makes a planet a planet. As well as how we classify solar system components. Workbook: pg. 68-69  
Vocabulary:  
Independent Work:  
Workbook: Written Reflection pg. 62 | Seeds of Science: Planets & Moons- 3.5 Exploring Gravity/Atmosphere- Mini Design Challenge  
Connection to EiE Adventures Design Challenge: Choices for Destination- Moon, Mars, Titan, Pluto  
Vocabulary: |

### Additional Resources, Math/Technology Connections, or Additional Design Challenges

- [NASA Solar System 101 for Kids](#)  
- [Gravity Interactive](#)  
- [Design a Parachute Interactive](#)

---

### Day 4

### Objective

Students will understand that objects in the solar system are classified by their characteristics that scientists have observed and studied.

### Materials

### Literacy Connections | STEM Investigation Lesson
---|---
Seeds of Science: Planets & Moons- 3.8 Book: *Planetary Scientist* | Seeds of Science: Planets & Moons- 3.6 & 3.7 Gravity/Atmosphere/Surface Features
September ______, 2015

Colorado Department of Education
Office of Postsecondary Readiness
Attn.: Ms. Misti Ruthven
201 East Colfax Ave.
Denver, CO 80203

P-TECH Application

The St. Vrain Valley School District (SVVSD), Front Range Community College (FRCC), and IBM Corporation (IBM) are pleased to jointly submit this application for a Pathways to Technology Early High School (P-TECH). Below is the narrative portion of our application. We have copied the sections presented in the original application and provided our responses to each section below. (Please note, the numbering is the same as that on the original application – it skips #3). The P-TECH program and site(s) require separate approvals from the Higher Learning Commission (HLC) to allow FRCC to enter into a consortia agreement with SVVSD. A request for HLC approval has been submitted.

I. Proposal Narrative and Operational Model

Provide a comprehensive description of the proposed project. The Operational Model for the P-TECH school should include but not limited to curricula, instructional practices, faculty roles, student support structures, class schedules, experiential learning opportunities, and the AAS that the students may attain through the P-TECH school.

1. Abstract: The abstract should provide a brief summary of the planned program. It will provide the names of the K-12, higher education and business partners, and indicate the lead implementation partner. It should also include the AAS degrees (and any certificates, if applicable) that students may attain through the school.

Response:

SVVSD, in partnership with FRCC and IBM, is pleased to submit this application for a P-TECH program. SVVSD will serve as the lead implementation partner and is submitting this application on behalf of FRCC and IBM.

SVVSD and its partners are excited about the potential P-TECH holds for the future. The program will offer an Associates of Applied Science (AAS) degree in Computer Science, with concentrations in four (4) different areas: (1) Programming, (2) Web Development, (3) Database Management, and (4) Information Systems. The initial emphasis will be in Programming.
The intent for the program is to also offer opportunities for students to achieve professional certifications on the way to earning the AAS, including computer programming, hardware and software support, and computer networking.

The P-TECH program will initially be housed our program at Skyline High School (SHS). For reasons discussed in detail below, SHS is an ideal location for a P-TECH school. SVVSD also has an Innovation Center that supports SHS and creates real world opportunities for students and is currently funded through a Race-to-the-Top District grant. It has state-of-the-art equipment and dedicated instructors who are teaching classes in information technology, robotics, electronics, engineering and design. The plan is to expand the Innovation Center so it can permanently house the P-TECH program. A bond initiative will be introduced by SVVSD in 2016 to request funding for a new building and additional resources to support the Innovation Center and P-TECH program.

2. Commitment to Partner Responsibilities. This section should demonstrate the commitment by all partners to fulfill the items described in the Partner Responsibilities section of this application.

Response:

SVVSD, FRCC, and IBM are committed to making P-TECH a success.

SVVSD recently hired Brandon Shaffer as a full time P-TECH Executive Director. He will work with Kahle Charles, SVVSD’s Executive Director of Curriculum, and IBM to align course offerings to meet FRCC’s requirements per the Colorado Community College Common Course requirements for course content and competencies. He will also coordinate with Heidi Ringer, the principal at Skyline High School, to ensure the smooth implementation of P-TECH as classes begin in the fall of 2016. Additionally, Brandon will serve as a liaison to FRCC, working with Linda Curran, FRCC-Boulder County Campus (FRCC-BCC) Vice President, Matt Jamison, FRCC-BCC Dean of Instruction, and Martin Goldberg, FRCC-BCC P-TECH Coordinator, to resolve logistical details related to curriculum, supports for students, professional development for high school and college faculty, scheduling, and communication. Finally, Brandon will work with the IBM team, including Ray Johnson, Corporate Citizenship manager for Colorado, and the IBM P-TECH Liaison (to be hired) to ensure mentorships, internships, and job placement opportunities materialize as contemplated in the P-TECH Cooperative Agreement.

SVVSD, FRCC, and IBM have each demonstrated their commitment to fulfill their obligations by engaging in constructive dialogue around the details of the P-TECH Cooperative Agreement. Under that agreement, both have outlined significant partnership provision that will bring P-TECH to fruition.

Specifically, SVVSD has committed to:
• Fully implement the Colorado Graduation Guidelines, assuring that all students accepted to the P-TECH program have a consistent, innovative program and college and career culture; and assure that all P-TECH faculty have the opportunity to collaborate and focus on Colorado P-TECH instructional and support services;

• Form a strong partnership including a procedure for communication, documented in the P-TECH application, with FRCC and IBM. This will include negotiating in good faith a Memorandum of Understanding regarding a detailed list including but not limited to: responsibilities and processes governing classroom equipment, instructional supplies, student support services, and financial considerations;

• Encourage the enrollment of a student body that is socio-economically and racially diverse and that includes first-generation college students, English language learners, and students with disabilities;

• Identify school leaders who: (a) have demonstrated the ability to drive exceptional student outcomes, (b) are dedicated to working with under-served students and their families, (c) can provide the leadership essential for program success, and (d) can integrate high school, college, and work-based learning experiences;

• Identify secondary instructors, in consultation with FRCC, who have proper and relevant credentials;

• Work with FRCC and IBM to develop a seamless scope and sequence of courses that enable all students to earn an associate of applied science degree within six years (at their own pace) and that includes workplace learning;

• Establish a college-going culture for all students that begins on the first day of 9th grade and continues throughout completion of the program, engaging students in instruction on key “college knowledge,” academic and personal behaviors such as time management, collaboration, problem solving, leadership, study skills, communication, and tenacity. (Credit-bearing college course work, and tutoring will be introduced as soon as appropriate.);

• Introduce the career and industry focus for all students beginning on the first day of 9th grade and continuing throughout completion of the program by infusing workplace skills and industry content into academic courses and offering time in the school schedule and calendar for the full range of workplace learning, e.g. mentoring, workplace visits, job shadowing, internships, apprenticeships, etc.;

• Offer multiple pathways for students with varying levels of academic achievement in 8th grade to participate and complete the full program successfully;

• Prepare students for college-level coursework, so remedial coursework at the post-secondary level is not necessary;
• Collaborate with FRCC faculty and staff to practice and develop intensive student support services that should include innovative approaches for early diagnosis and interventions for students who require additional academic assistance;

• Provide relevant and ongoing professional development for the SVVSD P-TECH Executive Director, Assistant Principal, and all participating teachers, including support and frequent exchanges during the school year;

• Maximize available funding streams such as federal School Improvement Grants and secondary level Perkins program funding, to support the needs of participating students (please note: students participating in the P-TECH Program will NOT be eligible for Federal financial aid, including Pell grants); and

• Grant high school diplomas, as appropriate.

FRCC has committed to:

• Form a strong partnership, documented in the P-TECH application, with SVVSD and IBM. This will include negotiating in good faith a Memorandum of Understanding regarding a detailed list including but not limited to: responsibilities and processes governing classroom equipment, instructional supplies, student support services, and financial considerations;

• Identify appropriate college courses to include in the program’s scope and sequence, ensuring that all students can earn an industry-recognized associate of applied science degree in Computer Science within six years of beginning the Colorado P-TECH program;

• Identify appropriate coursework and experiences to introduce students to college course-work as soon as appropriate;

• Work with SVVSD to determine which courses will be taught by college faculty, and which may be taught by high school teachers with appropriate post-secondary credentials (and ensuring the appropriate college-level rigor);

• Collaborate with high school faculty to ensure that high-school course content will prepare students for college work;

• Collaborate with high school faculty and staff to develop, communicate, and implement intensive student support services that would include innovative approaches for early diagnosis and interventions for students who require additional academic assistance. (Please note: Funds for this program cannot be spent on college remedial coursework; therefore, all high school coursework should prepare students to seamlessly enter college level courses.);
● Collaborate with IBM and program advisory councils to align college coursework with relevant technical skills and workplace competencies, as defined by industry;

● Collaborate with high school faculty and IBM to provide professional development to teachers and professors, as appropriate;

● Identify and employ post-secondary instructors who have proper and relevant credentials as required by FRCC’s accrediting body, the Higher Learning Commission (HLC);

● Maintain student advisory resources and credit transfer policies that protect the pathway to degree completion for participating students;

● Ensure that students earn their postsecondary degree at no cost, meaning that FRCC works with students to apply for and approve the use of College Opportunity Fund (COF) for their college courses at FRCC, as well as, working with SVVSD to apply for Perkins Grants and other funding opportunities that may be available;

● Maximize available funding streams as appropriate, to support the needs of participating students. (Please note: students participating in the P-TECH Program will NOT be eligible for Federal financial aid, including Pell grants);

● Provide dedicated staff to work on the initiative, including a College Liaison who has the authority to coordinate with the school on FRCC’s behalf; and

● Award post-secondary certificates and associate of applied science degrees, maintaining FRCC’s requirements and processes.

Similarly, IBM has committed to:

● Form a strong partnership, documented in the P-TECH Application, with SVVSD and FRCC;

● Collaborate with SVVSD and FRCC to create an up-to-date skills map for the industry/sector that identifies essential job requirements;

● Collaborate with SVVSD and FRCC to identify the post-secondary two year degree that will ensure students meet industry expectations and validate the proposed scope and sequence;

● Commit to place every student who successfully completes the program first in line for a job;

● Identify a mentor for every participating student (a sample commitment would be for mentors to participate in at least two face-to-face opportunities with their mentee per year and communicate with their mentee online every week with an approximate time commitment of 30 minutes per week); Provide workplace visits, speakers, skills-based, paid internships and apprenticeships for participating students;
Collaborate with K-12 and higher education staff to align technical skills and workplace competencies with curriculum, course offerings, and other resources; and

Provide dedicated staff to work on the initiative, including an IBM Liaison who has the authority to coordinate with the school on the IBM’s behalf.

4. **Plan for selecting students to enroll in the P-TECH school**, including how the plan will encourage enrollment of students who are socio-economically and racially diverse, the first to attend college in their family, English language learners, and students with disabilities.

Response:

The SVVSD P-TECH program has a goal of recruiting fifty (50) students per year through an open enrollment process.

As described above, SVVSD’s P-TECH program will initially be integrated into Skyline High School, the Innovation Center, and the associated feeder schools. We selected these schools because (1) they serve a socio-economically and racially diverse population of students, (2) they already support SVVSD’s Science Technology Engineering and Math (“STEM”) Academy, and (3) they already utilize Individual College Academic Plan (ICAP) counselors.

We selected SHS and the Innovation Center as the sites to house the P-TECH school because of their diverse population. During the 2014-15 school year, 55% of SHS’s students were Hispanic and 44.93% came from low-income families. Additionally, 43% of the population was classified as either “non-English proficient” or “limited English proficient”; and 10.42% of the students had significant disabilities. Our intention is to heavily promote the P-TECH program with this population beginning in the 8th grade. Promotion will take a number of different forms, including, but not limited to, sending information home with students, attending back-to-school nights with P-TECH booths, educating middle school math and science teachers about P-TECH, and attending Parent Teacher Organization (PTO) meetings with information. Additionally, we plan to host dedicated P-TECH enrollment events to which we will invite parents, students, teachers, and counselors to inform all parties of the design and intent of the program. A copy of the application students will fill out to apply for the P-TECH school is included with this application as **Exhibit A**.

SHS and the Innovation Center currently support SVVSD’s STEM Academy. Established in 2009, the STEM Academy integrates a STEM curriculum into SHS, the Innovation Center, and the associated feeder schools, thereby helping students develop a deep understanding of science, technology, engineering, and math, as well as, the engineering design process. SVVSD intends to continue its leadership role in high school STEM and will further integrate age and grade appropriate coursework in all schools to enhance students’ academic performance through integrated instructional strategies. Through the P-TECH program, we will expand STEM coursework options focusing on middle and elementary schools serving at-risk and
underserved populations. Doing so will ensure we have a healthy pipeline of students who understand the P-TECH opportunity and are interested in applying.

Finally, essential to the success of P-TECH will be the all-important relationship between educators and students inside the classroom. A relationship with each student aids our goals of accelerating student achievement, deepening student learning, and increasing equity through personalized student support. SVVSD has already integrated Individual Career and Academic Plan Counselors (ICAP) into SHS, the Innovation Center, and the associated feeder schools. These counselors horizontally integrate the individualized needs of each student with teachers, clinical staff, and para-professionals within the school. As the students progress to a new grade and/or new school, the counselors also vertically integrate the students’ needs with new teachers so there is greater continuity in the student’s education. This same support will exist as students progress through the P-TECH school. As students move from high school to college level courses, an ICAP Counselor will help with the transition.

5. Program Design: The program narrative will describe the program plan in detail. In addition, the narrative should discuss the use of student time/extended time through a description of any extended day and extended year programming planned for the program. The narrative will indicate the focus of the program of study, including attainment of a high school diploma, Associate in Applied Science degree and workforce preparation; plan for development of the detailed course of study; and how the program leverages the unique assets of each partner (K-12, higher education and business).

Response:

As described previously, SVVSD and its partners will focus on four areas within the Computer Science discipline: (1) Programming, (2) Web Development, (3) Database Management, and (4) Information Systems. The first pathway we will open will be in the field of programming, with students earning their AAS in Computer Information Systems. The other areas of concentration will be close behind as we continue to explore curriculum opportunities.

During the coming months, Kahle Charles, SVVSD’s Executive Director of Curriculum, and Matt Jamison, FRCC-BCC’s Dean of Instruction, and appropriate members of their teams, along with representatives from IBM, will work collaboratively to identify a Scope and Sequence for a 4-year, 5-year, and 6-year pathway. This will serve as the initial map for students to graduate within a six-year (6-year) timeframe, and will be revisited every year to ensure that the Scope and Sequence is meeting the needs of students. To maximize resources, Kahle Charles and Matt Jamison will also work collaboratively to identify which course offerings can be taught by existing staff at SVVSD, and which will be taught by FRCC professors. Classes will be taught in classrooms already identified for P-TECH at SHS, the Innovation Center, and FRCC.

Attached to this application is a copy of the 2014-15 course offerings at FRCC in the Computer Information Systems (CIS) – Associate of Applied Science Degree (Exhibit B). Also attached is the Transfer Pathway Advising Guide between FRCC and the University of Colorado showing
the various Computer Science courses that are transferrable if a student chooses to pursue a four-year degree (Exhibit C). The FRCC syllabus and the Transfer Pathway Advising Guide are two tools being used to customize our Computer Science curriculum.

Several of the core classes required for CIS will be identified as dual enrollment classes in which students will receive credit toward their high school diploma, while, simultaneously receiving credit toward their AAS degree. Beginning in the 9th grade, we will realign the computer science curriculum already being taught at SHS to meet the standards and objectives of the same courses offered at FRCC. Our intent is to synchronize as much of the curriculum as possible so students do not fall behind or jeopardize their ability to attain their high school diplomas within the standard four-year time frame. The curriculum will be organized so students can achieve both the high school diploma and AAS degree after four years of instruction; however, the option to extend into the 13th and 14th grades will be available if necessary.

The current plan is for the P-TECH school to follow a traditional school calendar; however, we will also offer remedial and accelerated classes during the summer, and we will utilize online courses to supplement curriculum and internships. As the curriculum alignment comes into focus, we will have a better understanding of what additional opportunities may be available to students outside of the traditional school calendar.

The CIS program is specifically designed to complement the employment needs of IBM, which has a large presence in Boulder County, employing approximately 2,800 people. IBM will work with FRCC and SVVSD to ensure that the 4, 5, and 6-year Scope and Sequence includes a rigorous Workplace Learning track, which includes mentoring, worksite visits, hands-on projects and skills-based, paid internships, to ensure that students graduate with the college- and career-readiness skills that the workforce requires. IBM’s efforts will be based upon the effective practices and experiences from the four (4) other P-TECH schools that it has lead since 2011. By fostering skills like problem-solving, critical thinking, communication and leadership, the partnership will help ensure that students graduate with the skills necessary to fill jobs in the IT sector and succeed in college.

SVVSD will integrate its career services office, as well as, its internship and mentorship programs into P-TECH. Also attached to this application is a copy of SVVSD’s Internship Program Handbook (Exhibit D). The guide was revised in the summer of 2015 anticipating the need for structure around our internship/mentorship program. Ultimately, our goal is to place each student enrolled in P-TECH into an appropriate mentorship, internship, or job related to his or her field of study. SVVSD will seek to establish these opportunities year-round.

6. Business and Higher Education Partnerships: The narrative will describe the program activities, business partner activities and links to the specialized curriculum that will develop the in-demand technical skills sought by business and industry in their region. The narrative will also describe the higher education coursework, support services and degree attainment pathway and its alignment with curriculum goals and regional employment needs.
Response:

IBM is a founder and international thought leader in P-TECH. The following narrative describes our anticipated program activities, including our anticipated higher education coursework and support services, and degree attainment pathway and its alignment with curriculum and regional employment needs. Also described below is IBM’s involvement in P-TECH as an international leader and industry partner.

**Program activities, higher education coursework and support services, and degree attainment pathway and its alignment with curriculum and regional employment needs**

Program activities for the SVVSD P-TECH school will be dictated by the Skills Map provided by IBM and the curriculum requirements set forth by FRCC’s Computer Information Systems (CIS) – Associate of Applied Science Degree (see Exhibit B). The CIS course offerings are diverse and challenging. For example, the CIS degree requires everything from English Composition to Advanced Java Programming. This track will offer students unique experiences and opportunities.

Support services available to P-TECH students will include Individual Career and Academic Plan (ICAP) Counselors, the Relationships with Educators Accelerate Learning (REAL) program, and professional development for SVVSD teachers and FRCC professors. The details of each of these support services are set forth in Section 8 below. In addition, FRCC faculty will work closely with high school faculty to ensure students have a supported and seamless academic transition; this will include regular meetings to share information, along with formal professional development opportunities.

The degree attainment pathway will be defined by the roadmap created by Kahle Charles, SVVSD’s Executive Director of Curriculum, and Matt Jamison, FRCC’s Dean of Instruction, and professors and teachers in these specialty areas. Our goal is to provide multiple pathways to complete the P-TECH program, beginning with a 4, 5, and 6-year Scope and Sequence of integrated high school and college coursework. We cannot emphasize strongly enough our commitment to the Colorado Department of Education’s Graduation Guidelines, ensuring students both complete their four-year high school diploma and attain their AAS in CIS.

The AAS degree will be aligned with current industry needs in the areas of programming, web development, database management, and information systems. Through this degree, students will be able to connect to multiple burgeoning and exciting fields, such as robotics, artificial intelligence, and cyber security. IBM is a key player in all of these areas and currently employs approximately 2,800 people in Boulder County.

The Longmont Area Economic Council commissioned a 2014 study, Advance Longmont Economic Development Strategy, which surveyed growth industries for the Longmont community. A key finding of the study is, “The primary Strong & Advancing industries in Longmont are Software/IT (1.9 LQ; 26% growth), Research (3.5 LQ; 1% growth), and Consumer
Product Manufacturing (1.8 LQ; 3% growth). These industries are also highly concentrated in the Longmont Region comprised of Boulder and Weld Counties.\(^1\) The report continues, “Longmont has adequate assets and industry presence to immediately begin pursuit of the target [industries] ….\(^2\) And, it lists the following as chief among the targets: aerospace and defense, data storage, computers and electronics, engineering and design services.\(^3\)

Additionally, Forbes Magazine rated Boulder No. 3 on the list of “The 10 Best Cities for STEM Jobs.”\(^4\) Forbes based its ranking on the fact that there are 140 STEM employers in Boulder for every 1,000 jobs, and it highlighted major industry employers in the region such as IBM, Oracle, and Ball Aerospace & Technologies.

STEM education and computer science is a tremendous growth area in the Longmont region and, as the need for computer programmers, data managers, cyber security experts, etc., grows, the opportunities available to students in SVVSD will be limitless.

**Business partner activities**

IBM has a long history of corporate citizenship and innovation in education. IBM’s efforts have focused on improving educational opportunities for the most disadvantaged students; since 2011, IBM has extended its work through the creation and development of the P-TECH grades 9 – 14 school model. President Barack Obama has hailed IBM for its key role in creating this new education model that is building technical skills to fill good jobs in the United States.

IBM’s more than four years of experience working with education partners on the ground in 9 – 14 schools in Brooklyn, Chicago and Connecticut, as well as its thought leadership across the current network of 40 P-TECH schools (growing to more than 60 in 2016 in the US and Australia), has given it a unique perspective on both the promise and challenges of implementing this groundbreaking school model. IBM serves as the lead industry partner at four schools, participating in all aspects of their development, and playing a lead role in ensuring that students graduate with the skills necessary to be first in line for jobs at IBM – a commitment it continues in Colorado. The early results from these schools have been significant, and point to the power of the model, and IBM’s abilities to work with educators to drive results. (Please see attached.) IBM’s experience will help jumpstart the work necessary to create a 9 – 14 school in collaboration with the SVVSD and FRCC. IBM has a significant presence in St. Vrain that is imperative to enabling this 9 – 14 school/college partnership.

During the planning phase, IBM will work with SVVSD and FRCC partners to begin the design and development of the school, including aligning the curriculum and refining the program. As a


\(^2\) Ibid, page 71.

\(^3\) Ibid, page 72.

first step, IBM will update the Skills Map created for its 9-14 P-TECH schools to ensure that it contains the most up-to-date entry-level skills. IBM will then work with SVVSD and FRCC to map those skills to the academic and workplace curriculum to ensure that when students graduate they are both college and career ready. Because skills constantly change, IBM will review the skills map on an annual basis. In addition, IBM will support student recruitment efforts and share the responsibility of helping parents understand how to support their children’s success.

IBM will lead the Workplace Learning track, a key aspect of the Scope and Sequence. Workplace Learning is designed to provide a seamless supported pathway to the world of work and career over the course of the students’ six years in the program. The Workplace Learning sequence of coursework, mentoring, work site visits, internships, and apprenticeships is intertwined with requirements for the AAS degrees at FRCC. As students move through the sequence, they steadily shift the balance of their time and focus from school to work, just as they simultaneously shift their balance from high school core requirements to college degree completion.

Mentoring will provide students with meaningful academic, workplace learning and emotional support. Starting in 2016-2017, each student will be paired with a mentor from IBM who will serve as caring role models for students, working with them on a range of workplace learning activities integrated into student learning. Communication will be school-based and take place both online – with mentors and students engaging in asynchronous communication through IBM’s free MentorPlace program – as well as in person.

IBM will work with teachers to develop weekly online activities that align with the school’s workplace learning curriculum. In the first year, workplace learning will focus primarily on key workplace competencies, such as leadership, teamwork, problem-solving, communication and critical thinking.

For students to understand the world of work, they must have opportunities to see actual workplace sites. The IBM St. Vrain location provides the ideal opportunity for young students to see where they could potentially work. IBM has provided worksite visits for students at its current P-TECH schools, offering a rich agenda that includes speakers, tours, job shadowing – all of which will be customized to the needs of our students.

IBM speakers will include those employees who are in jobs that students may graduate into, as well as high-level executives who will encourage and inspire students to apply themselves. IBM will also work with school leadership to identify industry leaders outside of IBM who can serve as speakers.

Beginning the summer after Year 3, as students gain technical and workplace skills, students will engage in skills-based, paid internships at IBM, and potentially other companies, that provide them the opportunity to practice their skills by working on real world problems in actual
workplace settings. This will prove critical to ensuring that students have the experience necessary to attain an entry-level job in the IT field and be first in line for jobs at IBM.

7. Program Management and Staffing Plan: Reviewers will evaluate the program’s planned staffing, considering both the responsibility for program leadership and accountability reporting.

Response:

SVVSD, FRCC, and IBM have each designated lead administrators for the P-TECH program. The following are the names and brief bios of each administrator:

SVVSD

Patty Quinones – Executive Director of Innovation. Patty directs the $16.6 million Race To The Top grant, funding STEM education throughout the SHS feeder system. Her vision, providing an education that prepares students for career success, includes integrating STEM curriculum in core subjects throughout K-12, advancing professional development for teachers, and opening the Innovation Center of St. Vrain Valley Schools. Patty served as the principal for Skyline High School for five years. In that position she oversaw the creation of the Science Technology Engineering and Math (STEM) and Visual and Performing Arts (VPA) Academies, which currently enroll 500 students. She secured grants to purchase technology, created partnerships with businesses and educational organizations, implemented a summer mini STEM academy and created the department of Computer Science. These efforts drive Patty’s singular goal, providing real world education and experiences for students. Patty has presented at national and regional conferences (ASEE, NSTA, CASE, CoCo STEM Forums) and co-authored the paper: Best Practices in High School and Higher Education.

Heidi Ringer – Principal of Skyline High School. Heidi holds a B.A. in Mathematics from the University of Colorado at Boulder and an M.A. in Administrative Leadership and Policy Studies from the University of Colorado at Denver. Heidi taught mathematics at Skyline High School for 10 years and was the mathematics co-department chair for five of those years. She was the recipient of the Presidential Award in Mathematics and Science Teaching in 2006. After accepting the job as an assistant principal in 2007, she coordinated the implementation of the STEM and VPA Academies, which began in the fall of 2009. Heidi was named Principal of Skyline High school in January of 2013.

Brandon Shaffer – Executive Director of P-TECH. Hired in September 2015, Brandon has a very diverse background with a strong emphasis on public policy. He did his undergraduate work at Stanford University and graduated with a B.A. in Political Science, conferred with honors through the Cubberley School of Education. Upon graduation, he was commissioned into the United States Navy where he served on active duty for four years. Following his stint in the Navy, he attended the University of Colorado Law School, graduating with a J.D. in 2001. Brandon was elected to the Colorado State Senate in 2004. While serving in the Senate, his
primary focus was on education policy and he carried several significant pieces of legislation to help fund full-day kindergarten, make college more affordable, and support teachers and para-professionals in our schools. Brandon served as the President of the Senate from 2009-2012.

IBM

Ray Johnson – Corporate Citizenship & Corporate Affairs Manager, CO, NE, NM, ND, SD, WY & Phoenix. As IBM Corporate Citizenship and Corporate Affairs Manager for IBM, Ray oversees the company’s K-12 education reform efforts, and community and government relations programs for a seven-state region. A leading advocate of K-12 business and education partnerships, Ray has been involved with numerous initiatives in his territory, including the push for standards and assessments in the mid-1990’s. Under his leadership, IBM has also implemented programs such as e-mentoring, an online program that matched over 300 IBM employees with 4th and 5th grade students to help with math skills. He also helped develop a reading improvement program in Boulder County, and a “Stay in School Program” for middle school students in Denver Public Schools. Ray has also increased access to computers & technology for thousands of students ranging from kindergarten day care centers to high schools across his region.

Ray joined IBM in 1978 and has held a variety of positions in internal communications, media relations, community relations and government affairs. He has served on the board of many non-profit organizations throughout his career, including the Colorado Center for Tax Policy, Colorado Association of Commerce and Industry, Provider’s Resource Clearing House, Teaming for Results, Friends of Food for Thought, Curtis Park Community Center and March of Dimes. Ray also serves on the executive board of the Colorado Association of Commerce and Industry, and chairs its Education Foundation. He also chairs the Colorado Business and Education Alliance. He received a bachelor’s degree in communications from the University of Northern Colorado, and lives in Westminster, Colo.

IBM P-TECH Liaison – TBD. IBM also has a significant staff at our corporate headquarters in Armonk, New York that will ensure the success of the program. Stanley Litow, vice president, Corporate Citizenship & Corporate Affairs, and president of the IBM International Foundation, leads our community efforts and created the 9-14 model. Mr. Litow leads a team that includes Maura Banta, Director, Global Education Initiatives; and Grace Suh, Manager, IBM Education programs. This team is all centrally located and will play active roles in the planning and implementation of the program.

FRCC

Martin Goldberg, P-TECH Instructional Coordinator. Marty Goldberg joined FRCC on September 1, 2015 to lead the college’s team through the startup and implementation of the P-TECH program. He first joined FRCC as an Adjunct Instructor of Business in the Spring 2011, and has regularly taught business, accounting and computer information systems classes on the College’s Larimer, Boulder County and Brighton campuses, as well as online. Marty is also
serving on President Andy Dorsey’s Strategic Planning Advisory Team, helping to craft the College’s next strategic plan.

Marty comes to Front Range Community College with over 30 years of experience leading small technology companies in research, engineering, operations and executive leadership positions, first in his native Washington, DC area, and more recently in Northern Colorado. A successful collaborative research effort with Colorado State University faculty is what prompted the move west. For the past eight years Marty has been a technology startup consultant and strategist for clients nationwide, and has contributed his services to several early-stage companies through the Rocky Mountain Innosphere’s SAGE mentoring program in Fort Collins.

Marty earned a Bachelor of Science in Management from Shenandoah University and a Master of Science in Strategic Management from Colorado State University. He is a member of the Project Management Institute (PMI) and a Senior Member of the Institute of Electrical and Electronic Engineers (IEEE). He is Project Management Professional (PMP) certified, and holds Colorado post-secondary teaching credentials in business, accounting, marketing, and computer information systems. He is co-inventor on several patents in the field of computer vision systems.
Staffing, Lead Implementation Partner, and Accountability Reporting

Staffing. SVVSD currently has sixteen (16) teachers at SHS and the Innovation Center who have master’s degrees and will be available to teach college-level courses in the P-TECH program. FRCC has an additional twenty (20) professors who are already teaching the Computer Information Systems – Associate of Applied Science Degree. As indicated previously, the mapping of courses and the designation of who will teach those courses, is an on-going process currently being addressed by Kahle Charles, SVVSD’s Executive Director of Curriculum, Matt Jamison, FRCC’s Dean of Instruction, and Heidi Ringer, Principal of SHS.

Lead Implementation Partner. SVVSD will be the Lead Implementation Partner. Brandon Shaffer, Executive Director of P-TECH, will be the prime leader with regard to P-TECH. Among other things, he will ensure curriculum and course assignments are finalized in a timely manner; lead efforts to inform parents of the P-TECH opportunity and recruit students for the program; help coordinate internships and mentorships with IBM; and serve as the lead liaison between the different partners facilitating open and constructive communication.

Accountability Reporting. As the Lead Implementation Partner, SVVSD will take responsibility for accountability reporting. Brandon Shaffer will oversee the collection and distribution of data showing the progress of students in P-TECH. This information will be reported to the Colorado Department of Education and Colorado Department of Higher Education as required under House Bill 15-1270.

8. Support Structures: The narrative will describe the plan to provide support for students, including the development of the career plan and academic guidance to encourage completion of the program. In addition, the narrative should contain a discussion of the professional development plans to prepare instructors in the program to teach in the integrated and complex STEM-CTE curriculum that is proposed in this application.

Response:

SVVSD was fortunate to receive the federal Investing in Innovation (I3) Grant in 2010. It also received the federal Race to the Top - District Grant (RTTT) in 2012. Both of these grants have uniquely situated SVVSD to deploy a P-TECH school by funding specialized counselors, individualized learning plans for students, and professional development of teachers.

Individual Career and Academic Plan (ICAP) Counselors. Students in the SHS and Innovation Center feeder system receive ICAP counselors who follow students from elementary school (5th grade) through high school. These counselors assist students, teachers, and parents in implementing personalized learning plans. The counselors monitor each student’s progress toward graduation. They also collect data that informs the student, teacher, and parents of needed adjustments to keep students on track. The plans are integrated horizontally with a student’s teachers, clinical staff, and para-professionals within each school.
transitions to other grades and schools, the plans are also integrated vertically with new teachers to facilitate greater continuity in the transition. ICAP counselors will stay with students through the completion of the P-TECH program.

**Relationships with Educators Accelerate Learning (REAL) Program.** SVVSD has also adopted the REAL Program. This is a framework for personalizing student support to improve academic performance and family engagement. This initiative supports the development of a mentor-relationship between at-risk students and teachers. The plan supports the hypothesis that teachers who maintain strong work connections with at-risk students provide students with the tools necessary to be successful learners. The REAL plan focuses on building connections to the student’s family to increase family engagement in the educational process.

**Professional Development.** Professional development is also an area of ongoing focus for SVVSD. Patty Quinones, Executive Director of Innovation, has developed a Professional Development Plan that helps foster great teachers and leaders who are able to integrate STEM into their coursework, and monitor student progress toward reaching successful graduation. SVVSD has hired STEM Coordinators at each of the SHS feeder schools to help implement the Professional Development Plan. Among other things, STEM Coordinators mentor teachers and train them in new and innovative educational approaches. They also work side-by-side with classroom teachers facilitating engineering design thinking projects and other STEM-focused challenges. This plan will be updated to extend to FRCC professors as well; ensuring instruction at all levels is rigorous and appropriate for P-TECH students.

In order for students to experience a seamless transition from high school to college coursework, professional development also will focus on collaborative opportunities between high school and college faculty. For example, college faculty will learn from high school teachers about success strategies for teaching adolescent youth, while high school teachers will learn from FRCC on how to prepare students to succeed in college classes. Once they begin college coursework, SVVSD and FRCC will create ongoing opportunities to meet regularly about individual students and their progress to ensure successful outcomes.

Thus, by embedding the P-TECH school into SHS and the Innovation Center, we will take advantage of existing infrastructure and support. While the I3 and RTTT grants expire in June 2018, SVVSD is committed to dedicating the necessary resources to keep these supports in place permanently. The model proposed for the P-TECH school will keep staffing and overhead costs to a minimum. And, we will be able to seamlessly integrate P-TECH into the existing feeder schools for SHS and Innovation Center. The major difference between P-TECH students and other students at SHS is that P-TECH students will have access to different elective courses that will allow them to complete the P-TECH program, and they will have a unique relationship with IBM through mentorships, internships and potential jobs.
9. Governance: Describe the program’s planned governance and leadership structure. This section will be evaluated based upon the commitment of the partners to the program and the clarity of the leadership structure.

Response:

P-TECH Steering Committee

P-TECH will be governed by a Steering Committee made up of key decision-makers from each partner. During the planning phase through initial launch, the Steering Committee will meet on a weekly or biweekly basis, and then on a monthly basis – or more often as needed. The Steering Committee will review key aspects of the program and make decisions on its direction.

Key members of the Steering Committee and other appropriate staff members will form planning teams, who will take action on decisions of the Steering Committee and other needs of the program. For example, there may be a Planning Committee on the Workplace Learning track, which will help execute various activities on mentoring, worksite visits, and speakers.

Executive Director of P-TECH

Brandon Shaffer, Executive Director of P-TECH, will serve as the overall project manager; however, he will work in close collaboration with the FRCC P-TECH Coordinator and IBM P-TECH Liaison. Within SVVSD, Brandon will coordinate the activities of Heidi Ringer, Principal of SHS, Patty Quinones, Executive Director of Innovation, Kahle Charles, Executive Director of Curriculum, and Rodrigo Anadon, Internship Coordinator. Outside SVVSD, Brandon will interface FRCC and IBM, constantly monitoring communications and ensuring a constructive dialogue between all P-TECH partners. Brandon will also keep track of performance metrics,
graduation rates, demographics of enrolled students, and funding streams to support the program. Ultimately, Brandon will manage all operations of the program and ensure compliance with all statutory, regulatory, and performance requirements.

Executive Director of Innovation

Patty Quinones, Executive Director of Innovation, will ensure experiential education remains a significant component of the P-TECH program. She will infuse entrepreneurial opportunities into the curriculum through experience-based projects working with local businesses. Courses such as computer programming and robotics, currently being taught at the Innovation Center, will integrate seamlessly into the CIS AAS degree. Additionally, Patty will continue to manage the ICAP Counselors to support students in the SHS feeder system. With the help of John Steckel, Becky Peters, Thom Ingram, Jeffery Lund, and Axel Reitzig, Patty will ensure the Innovation Center plays a significant role in the P-TECH school’s success.

Principal of Skyline High School

Heidi Ringer, Principal of Skyline High School, will serve several roles within the P-TECH community. She will identify appropriate classrooms in which to teach P-TECH courses and manage the Skyline faculty to support course offerings. She will assign teachers to teach the dual-credit courses in the pathways. She will also assure proper procedures around safety, background checks, and liability issues are addressed. Additionally, she will be in charge of disciplinary responsibilities concerning students if the need arises.

FRCC P-TECH Coordinator

Martin Goldberg, P-TECH Coordinator, will be FRCC’s lead on P-TECH. The primary responsibility of this position will be to keep open lines of communication between the different P-TECH partners. However, this position will also play a key role in managing logistics within FRCC. Among other things, he/she will ensure professors are trained and available to teach P-TECH courses; assist in data collection and reporting; provide feedback on curriculum and standards; and troubleshoot logistical issues as they arise. Also, enclosed as Exhibit E of this application, is a letter of support from FRCC underlining their commitment to the P-TECH program.

IBM P-TECH Liaison

This person will be IBM’s P-TECH point person at the program. Similar to FRCC’s P-TECH Coordinator, this person will play a key role in the ongoing development of the school, with special focus on the Workplace Learning track. A primary responsibility of this position will be to maintain constructive communications between the P-TECH partners. The P-TECH liaison will also identify and implement mentorship, worksite visits, speakers, and internship opportunities for students. In addition, a letter of support from IBM emphasizing their support of the P-TECH school is enclosed with this application as Exhibit F.
SVVSD i3 Final Performance Report

APPENDIX E:

LINKS TO PROMOTIONAL VIDEOS AND LOCAL MEDIA COVERAGE

General Videos
- Innovation Center Informational Video
- Discovery Education Spotlight video, featuring technology integration in model districts nationwide, sponsored by USDoE (features SVVSD Superintendent Don Haddad and Executive Director of Innovation Patty Quinones). Segment shown in Discovery Education’s “American Education Report: Back to School”, shown on PBS stations nationwide.

2015 Innovation Academy:
- Innovation Academy for a Smarter Planet is an SVVSD-IBM partnership created to empower students to design for a smarter future alongside existing IBM engineers and utilizing the design thinking process. This year’s academy hosted 250 students in grades K-5 in June 2015 at IBM’s facility in Boulder and at Skyline High School in Longmont. The videos below highlight the student projects, process, and learning throughout the two weeks of the academy.
  - Final Video for Session 1 (K-2 grades)
    - Smarter Buildings Video (Group 1)
    - Smarter Buildings Video (Group 2)
    - Smarter Transportation Video
    - Smarter Water Video
    - Smarter Food Video
  - Final Video for Session 2 (3-5 grades) - produced by Innovation Center students!
    - Smarter Media Video
    - Smarter Energy Video
    - Smarter Communications Video
    - Smarter Commerce Video
    - Smarter Cities Video
  - IBM Short Video
  - IA blog (includes pictures and stories about student experiences - maintained by Innovation Center students)
  - Story in Local Newspaper

Other notable events:
- SVVSD RTTT Computer Science Teacher Symposium - press release through CU Boulder’s News Center
- eSpark use in classrooms – story on our district STEM website, stem.svvsd.org.
- Trail Ridge recognized as an Apple Distinguished School – local media coverage
- Next State of Learning website, highlighting innovation in our classrooms
NEXT STATE OF LEARNING
A DOCUMENTARY SERIES BY CCSSO
What is the future of education? How can it be re-imagined for a changing world, and do so amid all the tensions of what school has been – and what it must become? Four states are starting to show us how.
In this documentary series, we will showcase programs in these states as working examples of innovation in the education space -- thoughtfully told through the experience of the students, teachers and policy makers.
NEXT STATE OF LEARNING
COLORADO
WHEN IT COMES TO STATE POLICY, COLORADO’S FOCUS HAS BEEN ON LISTENING CLOSELY TO LOCAL COMMUNITIES, TAKING NOTE OF THE MOST PROMISING NEW PRACTICES THAT ARE EMERGING, AND THEN FINDING WAYS TO USE NEW LEGISLATION TO AMPLIFY THAT WORK.

This template is well illustrated by the St. Vrain School District, a network of 53 schools spread over 411 square miles and 13 different communities – and serving more than 32,000 students, making it the seventh largest in the state.

Several years ago, St. Vrain decided that a great way to re-engage its students and families in the work of the schools was by strengthening its capacity to teach science, technology, engineering and math, or STEM. The idea was to do so at every level of the system – from preschool to high school. And the results, eight years later, have been noteworthy.

At the SPARK Preschool, students are tackling design challenges, working on community-based projects, and tinkering in the full-blown community maker space that is housed in their school. At the district’s elementary and middle schools, young people are equally immersed in STEM subjects, and always in active, hands-on ways. And at Skyline High School -- which serves one of the district’s more impoverished communities, and which recently had a graduation rate of little more than 50% -- educators have created a STEM Academy, launched a music department and dance studio, and built a fabrication lab and a tech space for their students.
Today, Skyline’s graduation rate tops 80%.

In response to these positive changes at the K-12 level, Colorado legislators have responded by rethinking what it takes to be a high school graduate, and redefining what those competencies need to look like. One recent success was the passage of HB1270 -- legislation that will help Colorado students graduate in six years with a high school diploma and an associate’s degree funded by the state. The bill allows a workforce development program known as P-TECH, for Pathways in Technology Early College High School, to come to Colorado.

Our short-form documentary about Colorado will track this story: the district-wide innovations St. Vrain has achieved in its STEM programming; the students whose life aspirations have changed as a result of their studies; the educators whose work and vision has made those changes possible; and the new legislation that will continue supporting Colorado students beyond their graduation day.
This series will showcase the innovations and personalize the students, educators and policy makers that helped bring them to life -- providing an inspirational road map for the future of education nationally.
Press Release

Wednesday, December 09, 2015

CCSSO Launches Project Exploring Innovation in States

Contact:
Olympia Meola
olympia.meola@ccss.org
202-336-7071

Washington D.C. (December 9, 2015) -- States are leading efforts to create innovative opportunities in public school classrooms around the country, but what does that innovation look like?

The Council of Chief State School Officers (CCSSO) today launched the Next State of Learning project to showcase how states are transforming public education by scaling locally led innovations with a strong focus on student outcomes.

Next State of Learning highlights four states - Colorado, Maine, New Hampshire and Wisconsin - that are part of CCSSO's Innovation Lab Network (ILN). Through the ILN, a group of states is taking action to identify, test and implement student-centered approaches to learning that transform the traditional classroom.

"The work of the states in our Innovation Lab Network is more important than ever," said CCSSO Executive Director Chris Minnich.

"As Congress works to finalize the reauthorization of the Elementary and Secondary Education Act, states will have a stable federal policy that not only provides additional flexibility but also space for innovative models. Many of our states now have policies in place to encourage personalizing education for every child while at the same time maintaining a strong focus on outcomes for all kids."

The stories in Next State of Learning are glimpses into the innovative initiatives underway in several ILN states across the country.

Colorado's Department of Education has learned from, and scaled, successful initiatives stemming from local districts. The St. Vrain school district has worked to build a pipeline of innovation throughout their elementary, middle, and high schools, fueling innovative approaches to STEM education.

"I think there is a very important tension right now between having a way to hold the system accountable for not leaving anybody out and being able to personalize to kids and help ignite what is unique and awesome about each of them," says Gretchen Morgan, the Colorado Department of Education's Associate Commissioner of Innovation, Choice and Engagement.

Beginning in 2017-2018, in order to graduate from high school, students in Maine will start being assessed by their mastery of content, not just their time spent on a subject.

"This is deep, systems-level change," said Dan Joseph, of Reinventing Schools. "That takes a lot of time and energy on the part of everybody. You can't have distractions where folks are wondering why we're even doing something different."

In New Hampshire, four school districts began a pilot of how to assess students using a blend of locally developed performance tasks and standardized tests. The U.S. Department of Education approved this first-in-the-nation accountability pilot that offers a reduced level of standardized testing together with locally managed assessments. It is now expanding to other districts.

"We needed to look at something new and try to create something new when it came to how we assess student learning," said New Hampshire Deputy Commissioner of Education Paul Leather.

Wisconsin has cooperative educational service agencies that operate independently and help local districts coordinate services and receive professional development.

"What personalization has been done for teachers in an era where they rightly believe that some of their ability to chart their own
course has been constrained by testing, is allowed them to make more decisions about what needs to happen with their class and with their students they work with,” says Tony Evers, Wisconsin’s Superintendent of Public Instruction and CCSSO’s Board President. “And that’s really important.”

The Next State of Learning project will continue to explore work in other states, and can be followed on Twitter at @CCSSO and #CCSSOILN.


###

The Council of Chief State School Officers (CCSSO) is a nonpartisan, nationwide, nonprofit organization of public officials who head departments of elementary and secondary education in the states, the District of Columbia, the Department of Defense Education Activity, and five U.S. extra-state jurisdictions. CCSSO provides leadership, advocacy, and technical assistance on major educational issues. The Council seeks member consensus on major educational issues and expresses their views to civic and professional organizations, federal agencies, Congress, and the public.
2015 FOCUS
Apply Design Thinking to solve challenges that are being faced by staff, students and families while integrating the Learning Technology Plan in our schools.

Design Challenge participants will:
• Strengthen faculty skills in using the Design Thinking process in authentic workplace situations
• Generate replicable solutions that can be used in other schools across the district
• Encourage excitement in using entrepreneurial practices within the school system for other purposes

OUR VISION
New this year, schools will be invited to address a challenge that confronts their capacity to achieve academic excellence. By utilizing Design Thinking processes schools will develop solutions to problems they face everyday. Community partners will judge applicants and award prizes to the team with the highest rated solutions – Welcome to the Design Challenge!

TWO COMPETITIONS

EMERGING LEARNERS

SKILLFUL PRACTITIONER

NEW TO DESIGN THINKING

EXPERIENCED DESIGN THINKERS

PRIZES
$4,000 – 1ST
$1,000 – 2ND

PRIZES
$4,000 – 1ST
$1,000 – 2ND

SOLUTION TARGET
Schools will target one of the six essential components of learning technology to improve upon. Visit the Design Challenge website to view all six essential components.

REGISTER TO PARTICIPATE BY: NOVEMBER 6 • STVRA.IN/DESIGNAPP