Oak Ridge Schools
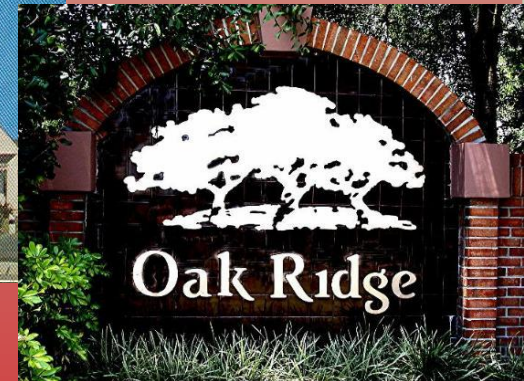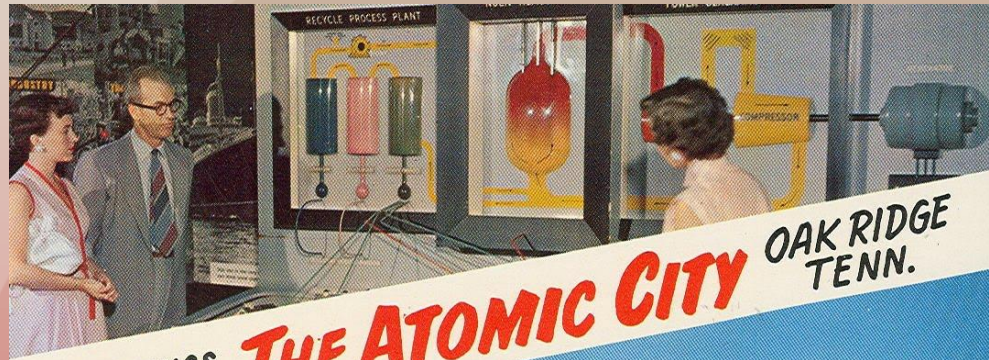# A Road Map to Excellence

2014 and beyond....

Dr. Bruce Borchers
Superintendent ORS

Oak Ridge "Keys" to Success

SEVEN KEYS

TO COLLEGE AND CAREER READINESS

Improving the college and career readiness of all Oak Ridge students will provide them with a better foundation of knowledge and skills, allowing them to be prepared for a more technologically sophisticated and internationally competitive working world.

KEY 1: All students' Reading proficiency at or above grade level by the end of the third grade

KEY 2: All students' Math proficiency at or above grade level by the end of the fourth grade

KEY 3: All students Math and English proficiency at or above grade level by the end of the sixth grade

KEY 4: All students meeting EXPLORE's "College Readiness" benchmarks by the end of the eighth grade

KEY 5: All students are fluent in financial literacy by high school graduation

KEY 6: All students scoring an ACT composite of 27 or higher

KEY 7: All students participate in a dual enrollment, AP Coursework, industry certification, or military preparation program by graduation

Keys to College and Career Readiness

Key 1:	All students' Reading proficiency at or above grade level by the end of 3rd grade						
Measures	Level 1 - Intervene	Level 2 - Concern	Level 3 - Midpoint	Level 4 - Progress	Level 5 - Vision	Baseline 2013-2014	Target 2014-2015
Proficiency on TCAP	0 - 60%	61 - 65%	66 - 70%	71 - 75%	76 - 100%	56.2%	TBD
Proficiency on Literacy Software	TBD	TBD	TBD	TBD	TBD	TBD	TBD

Key 2:	All students' Math proficiency at or above grade level by the end of 4th grade						
Measures	Level 1 - Intervene	Level 2 - Concern	Level 3 - Midpoint	Level 4 - Progress	Level 5 - Vision	Baseline 2013-2014	Target 2014-2015
Proficiency on TCAP	0 - 60%	61 - 65%	66 - 70%	71 - 75%	76 - 100%	57.8%	TBD

Key 3:	All students' Math and English proficiency at or above grade level by the end of 6th grade						
Measures	Level 1 - Intervene	Level 2 - Concern	Level 3 - Midpoint	Level 4 - Progress	Level 5 - Vision	Baseline 2013-2014	Target 2014-2015
Proficiency on TCAP	0 - 40%	40 - 49%	50 - 59%	60 - 69%	70 - 100%	48.9%	TBD
Proficiency on Math Placement Test	TBD	TBD	TBD	TBD	TBD	TBD	TBD

Key 4:	All students meet EXPLORE "College Readiness" benchmarks in 8th grade						
Measures	Level 1 - Intervene	Level 2 - Concern	Level 3 - Midpoint	Level 4 - Progress	Level 5 - Vision	Baseline 2013-2014	Target 2014-2015
EXPLORE All 4 Tests	0 - 25%	25 - 30%	31 - 36%	37 - 42%	43 - 100%	33.2%	TBD

Key 5:	All students scoring an ACT Composite of 27 or higher						
Measures	Level 1 - Intervene	Level 2 - Concern	Level 3 - Midpoint	Level 4 - Progress	Level 5 - Vision	Baseline 2013-2014	Target 2014-2015
ACT Composite	0 - 17%	18 - 22%	23 - 27%	28 - 32%	33 - 100%	25.2%	TBD

Key 6:	All students proficient in financial literacy by graduation						
Measures	Level 1 - Intervene	Level 2 - Concern	Level 3 - Midpoint	Level 4 - Progress	Level 5 - Vision	Baseline 2013-2014	Target 2014-2015
TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD

Key 7:	All students participate in a Dual Enrollment or AP course, or an Industry Certification by graduation						
Measures	Level 1 - Intervene	Level 2 - Concern	Level 3 - Midpoint	Level 4 - Progress	Level 5 - Vision	Baseline 2013-2014	Target 2014-2015
Total Participation	0 - 64%	65 - 74%	75 - 84%	85 - 94%	95 - 100%	69.0%	TBD

Devices to Leverage Digital Curriculum
"A meaningful instructional tool at the fingertips of every child"
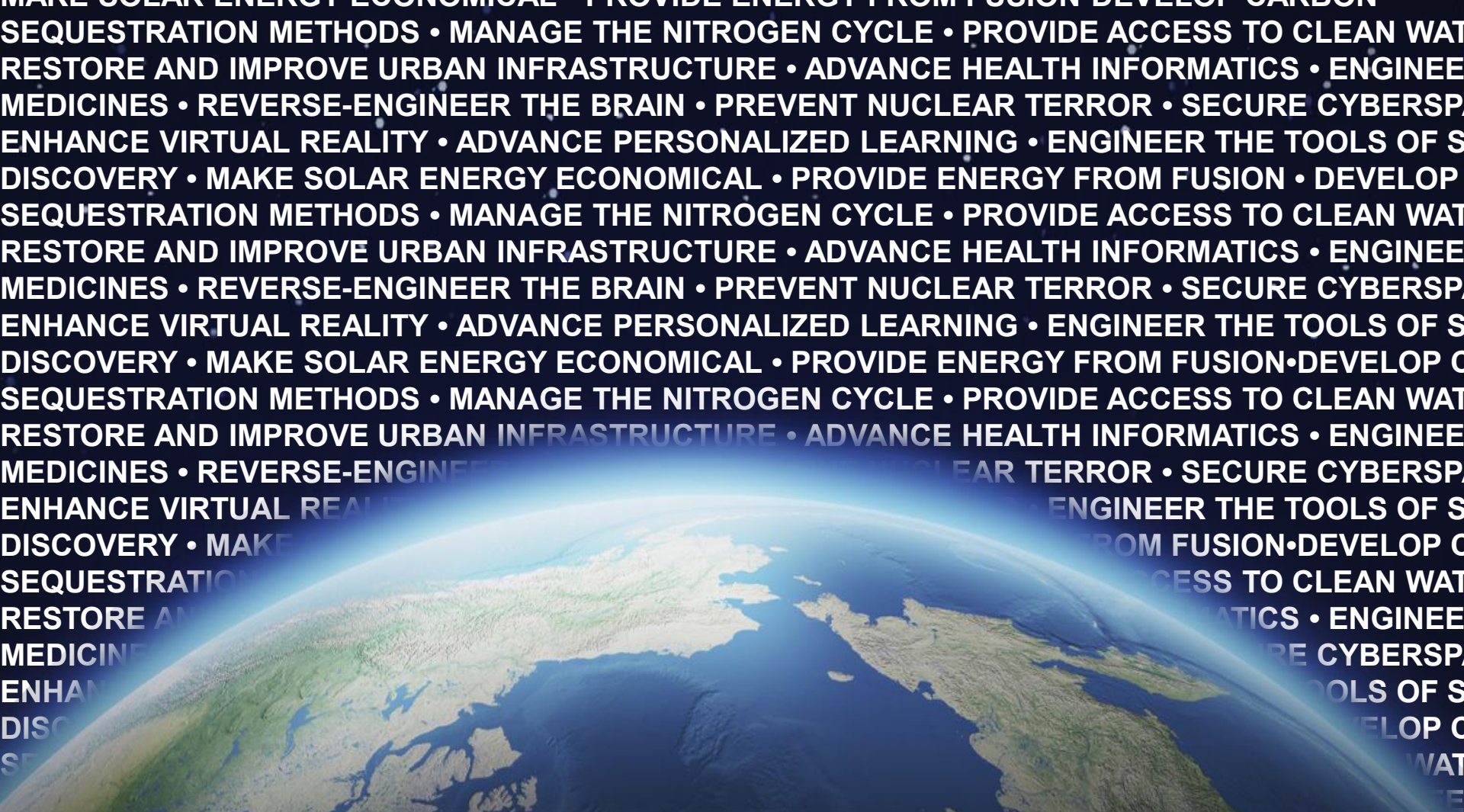
In reading, *Rethinking Education in the Age of Technology* by Allan Collins and Richard Halverson, I came across quotes that every educator MUST hear. They are reproduced from the work of Dave Thornburg and David Dwyer.

- From a principal's publication in 1815: "Students today depend on paper too much. They don't know how to write on a slate without getting chalk dust all over themselves. They can't clean a slate properly. What will they do when they run out of paper?"

- From the journal of the National Association of Teachers, 1907: "Students today depend too much on ink. They don't know how to use a knife to sharpen a pencil. Pen and ink will never replace the pencil."

- From *Rural American Teacher*, 1928: "Students today depend on store bought ink. They don't know how to make their own. When they run out of ink they will be unable to write words or ciphers until their next trip to the settlement. This is a sad commentary on modern education."

- From *Federal Teachers*, 1950: "Ballpoint pens will be the ruin of education in our country. Students use these devices then throw them away. The American values of thrift and frugality are being discarded. Businesses and banks will never allow such expensive luxuries."

MAKE SOLAR ENERGY ECONOMICAL • PROVIDE ENERGY FROM FUSION DEVELOP CARBON
SEQUESTRATION METHODS • MANAGE THE NITROGEN CYCLE • PROVIDE ACCESS TO CLEAN WAT
RESTORE AND IMPROVE URBAN INFRASTRUCTURE • ADVANCE HEALTH INFORMATICS • ENGINEE
MEDICINES • REVERSE-ENGINEER THE BRAIN • PREVENT NUCLEAR TERROR • SECURE CYBERSPA
ENHANCE VIRTUAL REALITY • ADVANCE PERSONALIZED LEARNING • ENGINEER THE TOOLS OF S
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OAK RIDGE SCHOOLS
THE PREMIER PRE K-12
STEM DISTRICT

Discovery
EDUCATION™

Workforce in STEM:
America is only graduating 1/5ᵗʰ of the STEM workforce needed

1 Million STEM Jobs will be opened by 2018. The United States is projected to only graduate 200,000 in the STEM workforce.

STEM Vision for Oak Ridge Schools
"Premier STEM District (**preK-12**) in the Nation"

The purpose of the STEM Initiative is to <u>enhance the teaching and learning environment</u> in the Oak Ridge Schools and <u>place Science, Technology, Engineering and Mathematics tools in the hands of teachers and students</u>. Preparing students for the 21st century and creating global citizens, collaborators and critical thinkers is at the foundation of this initiative.
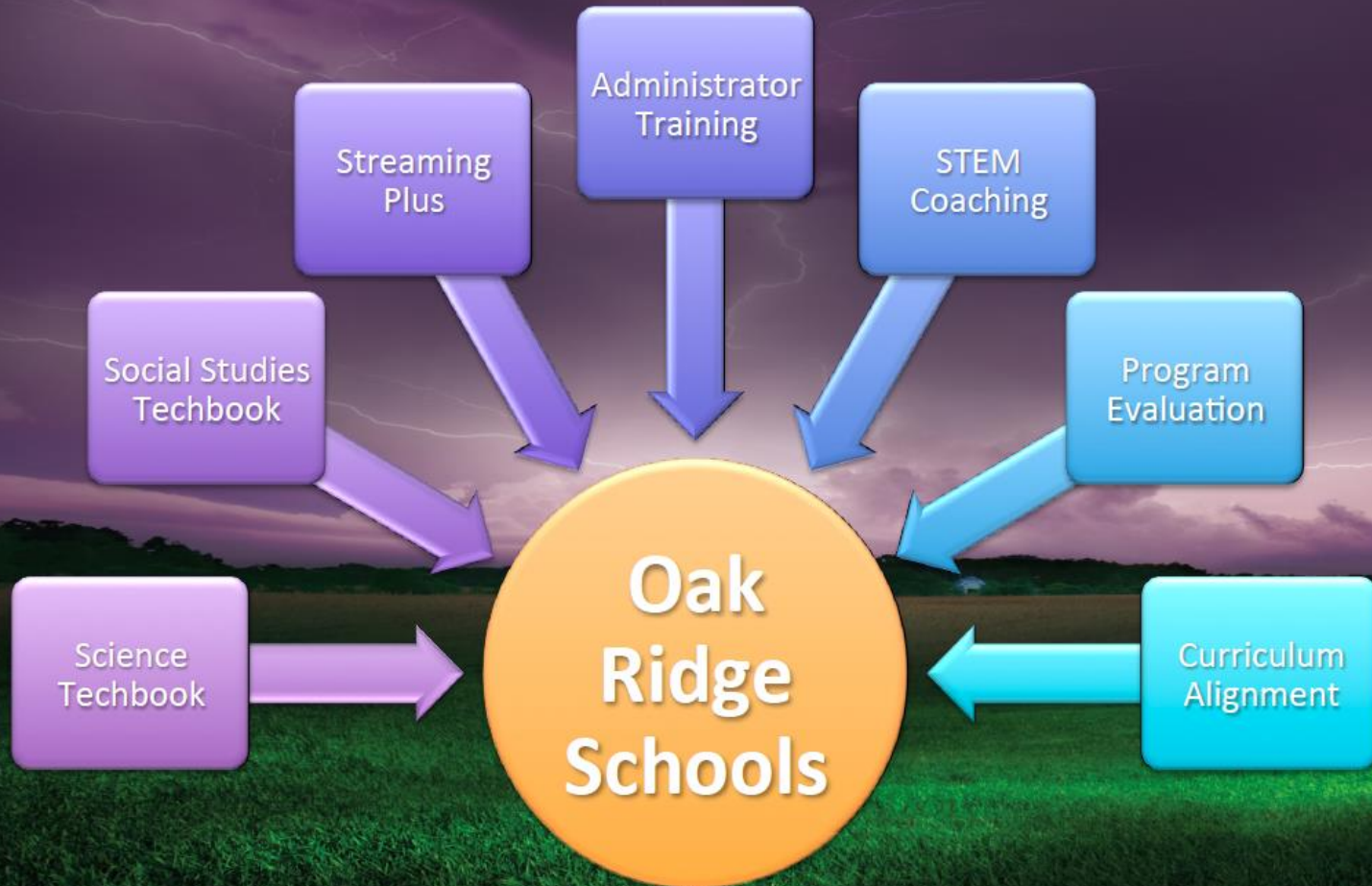
Professional Development Tracks

Science Techbook
- All K-4 Teachers
- All 5-8 Science Teachers
  - *5 Course Sequence through December 2014*

Social Studies Techbook
- All 5-8 Social Studies Teachers
- Any High School Social Studies Teachers interested
  - *5 Course Sequence through December 2014*

Steaming Plus
- All 5-8 Non-SS and Non-Science Teachers
- All K-4 Literacy coaches & Media Specialists
- All HS Teachers invited
  - *5 Course Sequence through December 2014*

Administrator Training
- All Principals and Assistant Principals K-12
- All District Leaders
  - *6 Course Sequence through December 2014*
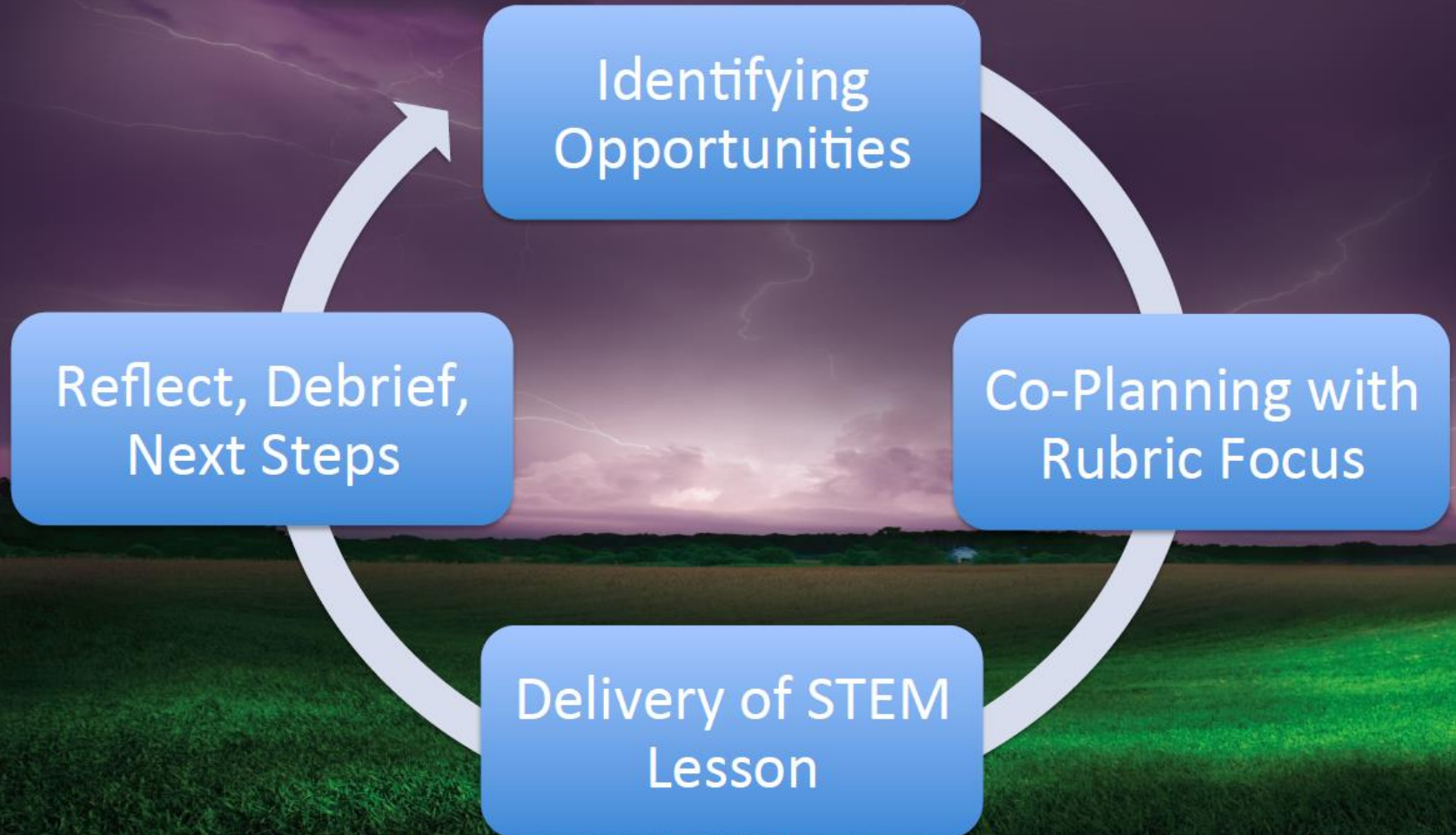
What is involved in the STEM Coaching Cadre?

Expectations
- Attend all 3 previous "Track" Course
- Take part in a Summer 2-Day STEM Academy
- Be open to peer coaching and willingness to learn
- Take part in all 3 years of the program

Commitment
- 3 Days of Techbook/Streaming Pre-training
- 5 days in year 1 for traditional PD on STEM instruction
- 4 days/year of Coaching
- Opening their room to others as a Model STEM Classroom

Going Beyond
- Develop a STEM Action-Plan for their school
- Involvement in a STEM Book-study
- Coaching/Mentoring their own peers in STEM

What makes a Great Candidate?

We are looking for teachers who:
- ✓ Help foster a collaborative culture
- ✓ Takes part and promotes professional learning
- ✓ Uses research to improve practice
- ✓ Open to taking risks
- ✓ Willingness to open up their classrooms to others
- ✓ Can self-reflect and learn from coaching

Where do I "Fit In"?

BUILDING LEADER EXPECTATIONS

No project can be successful without the instructional leadership of the principal.

- Create and support a culture of learning, experimentation and risk-taking
- Work with the teacher leader team to create a shared school vision around STEM.
- Attend continual professional learning each year to help support STEM in your school.
- Work with DE STEM Coaches to maximize teacher professional learning.
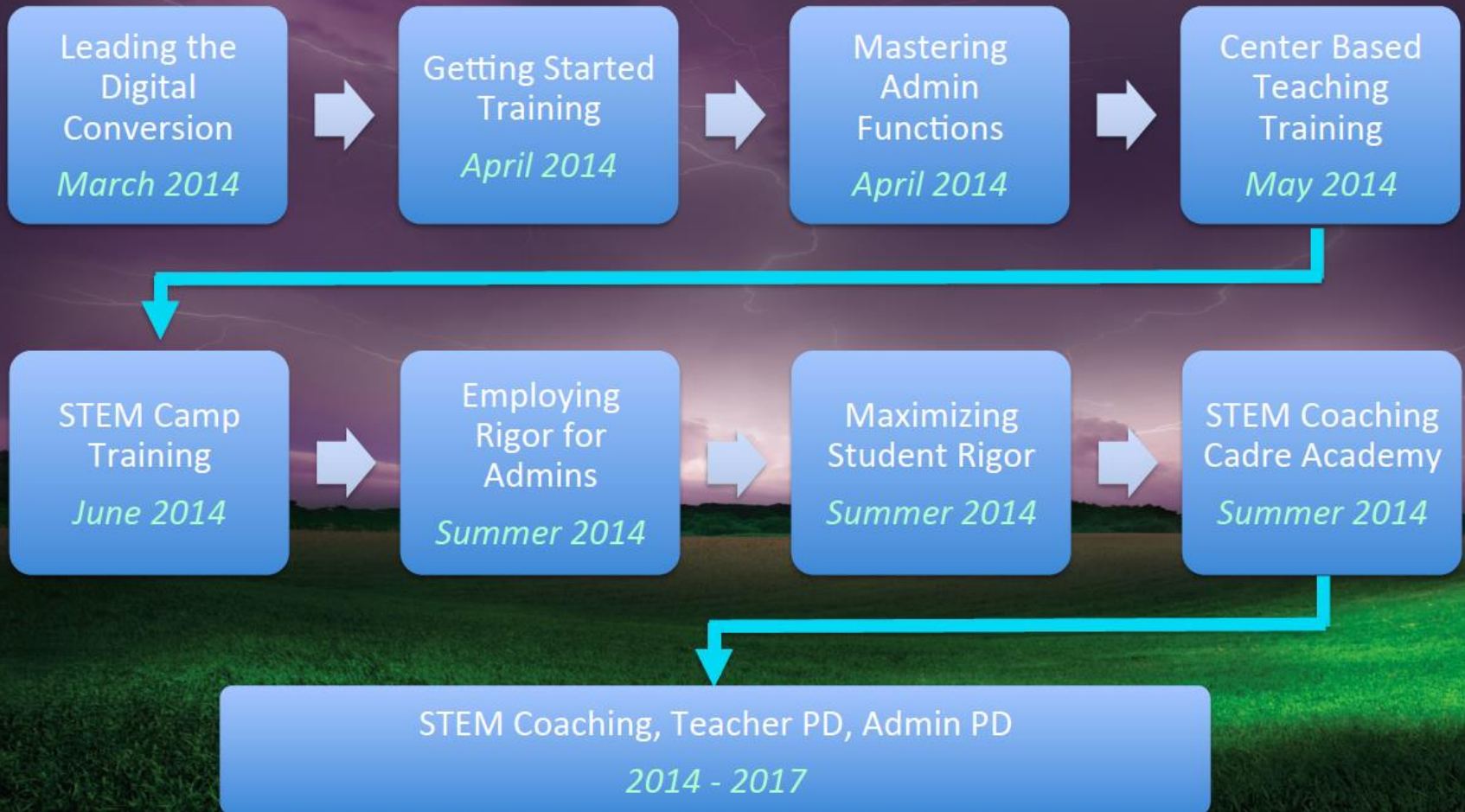
Post-Professional Development Report
Oak Ridge Schools, TN
April 4th - 16th, 2014

Professional Development Session Overview

Course: *Getting Started with Discovery Education Science Techbook*

Description: Let's get started! Participants will be immersed in the 5E's of Inquiry model of science instruction, the framework of the Science or Social Studies Techbook, to promote deeper levels of science understanding. Participants will be introduced to features of the Techbook and effective instructional strategies for using digital content in science so that they may immediately start planning and implementing the content into their classrooms.

Course: *Integrating Discovery Education Streaming PLUS*

Description: Transform teaching and learning with Discovery Education Streaming Plus, an innovative instructional resource designed to support the transition to Common Core State Standards. Participants will be immersed in Discovery Education's extensive streaming library of rich and engaging media that spans all curriculum areas. This course is designed to demonstrate how DE streaming supports multiple learning modalities with content that is easy to integrate, aligned to standards, and always current. Participants will learn how to search for content based on tags, including state standards, keywords, media types, grade levels, and more and seamlessly link lesson objectives to digital media. In addition, exemplar Common Core lessons will be discussed and explored for easy use and adaptation the classroom, and participants will have the opportunity to experience a piece of the model lesson taught by the DE specialist.

Professional Development Data Collected

Number of Participants: 237 participants returned surveys

Overall Satisfaction with PD session
Excellent: 158 participants – 66.7%
Good: 67 participants – 28.3%
Fair: 9 participants – 3.8%
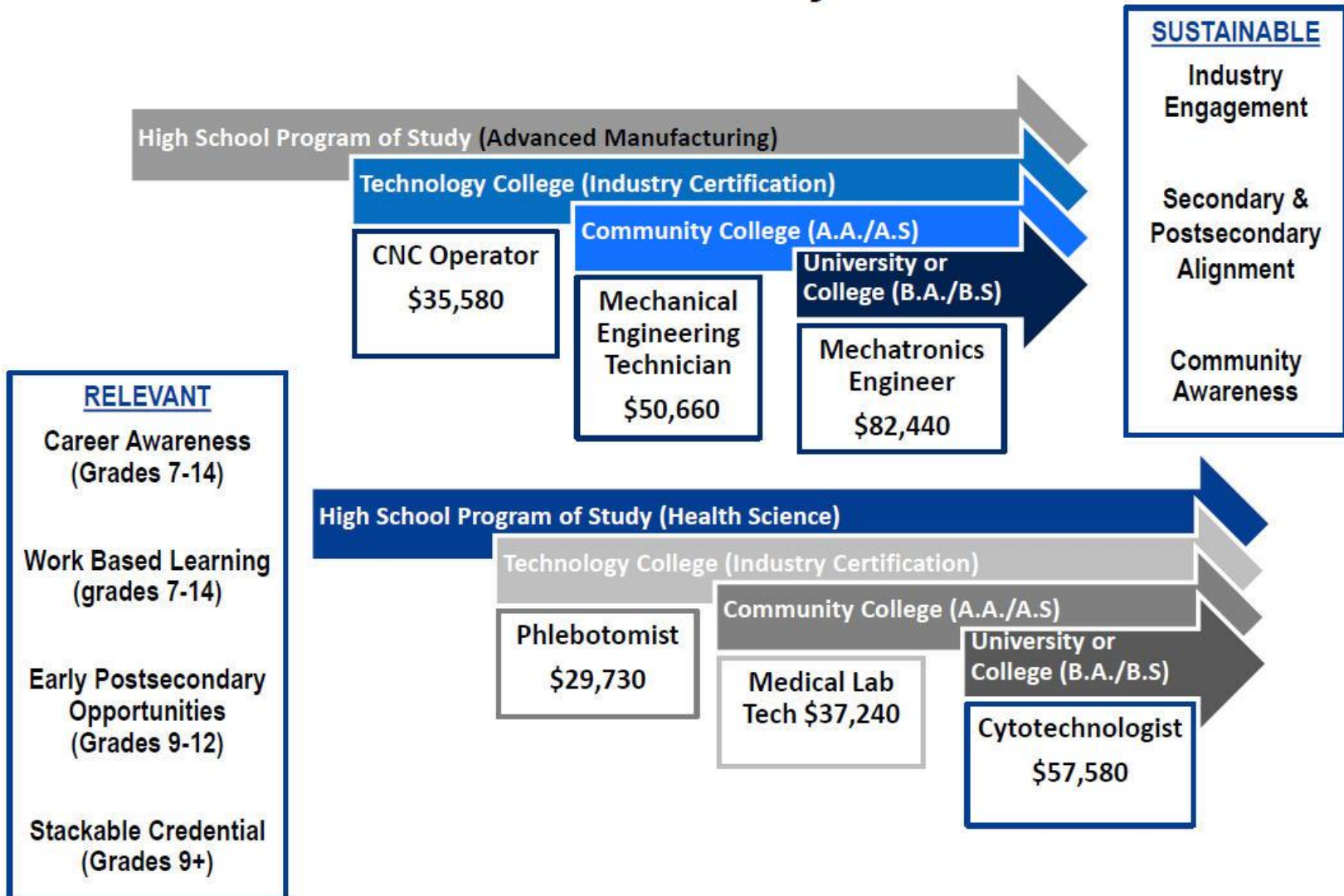**Poor**: 3 participants – 1.2%
Excellent or Good: 95%

Todays training met the stated goals and outcomes: 99.6% Agree

Pathways for Students…

"We do this so that our students can be successful in postsecondary education or training that leads to a sustaining career…"

What Does A Pathway Look Like?

Strategic Compensation/Differentiated Pay Requirements

Keys to College and Career Readiness
Teacher Leaders

STEM Leaders

A position of leadership, planning, project management, and marketing that serves as a cornerstone of the Oak Ridge Schools' evolution to a STEM-focused district.

Works with
- Teachers
- Principal
- Families
- Community
- Businesses

Keys to College and Career Readiness
Teacher Leaders

Professional Learning Communities Coach
PLCC

Facilitates the completion of the organizational components of the school-based Professional Learning Community

- Teachers
- Principals
- Students
- Families
- School
- Instructional Strategies

Keys to College and Career Readiness
Teacher Leaders

Data Analyst: School Embedded

Disaggregates and analyzes data in support of the data-driven decision-making and continuous improvement for the school and district

- Principal
- School
- Teachers
- PLCCs

What we know today does not make yesterday wrong, it makes tomorrow better.

Carol Commodore