STEMformation
District Wide Planning
Phase I

CAPTIVATING STUDENTS. EMPOWERING TEACHERS. TRANSFORMING CLASSROOMS.
Mission:
SCS inspires our next generation of science, technology, engineering, and mathematics (STEM) leaders in Memphis by developing equitable pathways to STEM careers focused on soft skills identified by industry.

Goal #1: Increase student interest, participation, & achievement in STEM
STRATEGIES:
• Establish Regional STEM Innovation Hubs
• Launch STEM Platform Schools
• Ensure all students have access to rigorous STEM courses
• Identify, develop, & share STEM curriculum tools

Goal #2: Expand student access to effective STEM teachers & leaders
STRATEGIES:
• Increase effective STEM teachers & leaders
• Replicate proven STEM teacher training programs
• Use STEM Schools as learning labs
• Boost STEM Teacher supply
• Enhance STEM Teacher capacity & reach
• Increase quality STEM professional development
• Support school leaders

Goal #3: Reduce the state’s STEM talent and skills gap
STRATEGIES:
• Increase accelerated STEM learning opportunities
• Increase partnerships between business and education
• Increase STEM postsecondary degree production

Goal #4: Build community awareness and support for STEM
STRATEGIES:
• Build communication tools, develop messages, and identify delivery channels
• Conduct media outreach
• Identify and showcase STEM public events
• Increase STEM stakeholder engagement
Vision:

SCS will ensure an all-inclusive culture that empowers teachers to be innovative practitioners in order to provide students with authentic learning experiences grounded in real world problem solving and critical thinking from early childhood to post-secondary experiences.
What are Memphis industries asking in a candidate profile?

Soft Skills

• Problem solving
• Critical thinking
• Dependability (come to work)
• People management
• Coordinating with others
• Communication
• Service orientation
• Negotiation

STEM Power players in Memphis

• FedEx - 30,000 employees | $45 billion/year
• ServiceMaster – 2,000 employees | $2.9 billion
• AutoZone - largest retail operation headquartered in Memphis
• First Horizon - National Corporation - 6,000 employees | $40 billion
• St. Jude Research Hospital
• Methodist Le Bonheur Health Care - 13,000 employees
• Baptist Memorial Health Care
• Smith and Nephew - Medical Equipment Manufacturing - $2.4 billion
Our need remains

More than **40,000 (36%)** SCS students have an annual household income (family of 4+) of **less than $10,000**.

Memphis ranks **86th out of the 100** largest metro areas for the gap between supply and demand for educated workers.

We are closing the achievement gap, but not quickly enough to ensure success for all of our students.
“You can’t be; What you don’t see!” - Dr. Moss
**Partnership Outcomes:**

As a result of our partnership, Shelby County Schools will have:

<table>
<thead>
<tr>
<th>20 STEMFormation Schools</th>
<th>Serving as the district’s models of transformation. Connects to pathways</th>
</tr>
</thead>
<tbody>
<tr>
<td>24+ ADMINISTRATORS</td>
<td>Receiving 40+ hours of customized professional development focused on leading the transformation</td>
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<tr>
<td>400+ TEACHERS</td>
<td>Receiving STEM professional development, how to engage students in STEM focused lessons (interdisciplinary)</td>
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<tr>
<td>500+ LEARNING LABS</td>
<td>Student-Centered, STEM Learning Lab Classrooms (building lessons that reinforce critical thinking and problem solving)</td>
</tr>
<tr>
<td>420+ STEAM LEADERS</td>
<td>Receiving professional development &amp; redelivering STEM learning modules to scale transformation at each school &amp; across district</td>
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*Visit here to learn more Partner Success Stories: [DiscoveryEducation.com/learn/success]*
Expanding the STEM Landscape
Shelby County Schools

- East High T-STEM
- Maxine Smith STEAM Academy*
- Whitehaven Elementary STEM Academy*
- Havenview Middle
- Platform School @ Southwind High
Beginning in the 2013-14 school year, CTE transitioned to 16 Career Clusters (previously, it had been seven Program Areas).
Connection to Current Curriculum

The Science curriculum embodies the TN Academic Science Standards, phenomena, and 3-Dimensional learning (Science and Engineering Practices, Crosscutting Concepts, and Disciplinary Core Ideas). These entities create the culture for students to explore investigations, text, and media in order to expose our students to 21st century skills and learning. STEMformation engages students in real world applications while measuring their growth as a result of the implementation. In order for our students to be aware and be exposed to STEM related learning opportunities, we must provide resources and professional learning experiences for such to occur.
Measuring Success

- End of Year Assessment Results
- Observation of Change in Teacher Practices
- Attendance and Discipline Data
- Meeting the Demands of the New Science Standards
The need for STEM teaching and learning is great and can yield large dividends for our students and the community.

"...endless possibilities that kids can achieve with STEM education."

"Discovery Ed appears to have a unique way of integrating STEM into the classroom."

"STEM is a culture of problem solving for all students and not a class."

Questions

Ask A Question

- Where?
- What if?
- Could it?
- When?
- Why?
- Could it?
- What?
- Would it?
- How?