

Knowledge is Opportunity

“The more you know, the more opportunities are available”

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What is STEM?

- ***Philosophy of Prioritization***
- Hands-on Learning
- Problem Solving
- Project-Based Learning
- Mindset about teaching and learning

What will we prioritize at Lanier?

- Student-centered learning with a focus on practical application
- Increased rigor
- Higher DOK level lessons
- Standards-based instruction
- A collection of courses
- Cross-curriculum lessons

What does “it” look like in practice?

- Differentiated instruction
- Performance-based assessments
- Student-centered learning with a focus on practical application
- Higher DOK levels
- Teachers being facilitators

How do we get buy-in from teachers and stakeholders?

- Clear vision
- Shared vision
- A model for integrated learning
- Provision of quality resources
- Teacher Training

How do we measure quality?

- Classroom walkthroughs
- Providing feedback
- Student achievement
- Partner with Cognia

Shift the focus

Instead of struggling to define STEM as an absolute:

- *Refocus the meaning of STEM in the local context*
- *Define a clear vision*
- *Recruit the right team*
- *Establish a mission*
- *Develop a plan*
- *Create STEM windows*
- *Invite innovation*

What does our organizational behavior reveal about our beliefs?

- Getting to know your students is important, because when students trust you, they are more inclined to perform.
- High teacher attendance contributes to improved student academic performance
- Supportive administrative team
- Inconsistency in enforcing classroom behaviors such as not providing consequences for negative behaviors
- All students do not learn the same way

What are our beliefs at Lanier?

- At Sidney Lanier High School, we pride ourselves on the philosophical belief that all children have the potential to learn and should be provided with the highest quality of education in the learning environment that is most appropriate for them.
- Empower all students to achieve excellence in all things.

Connecting Beliefs to Behaviors

Cognia's Mission

To provide a consistent, internationally applicable definition for quality STEM schools and programs

To build a network of STEM practitioners to support and improve instruction

What does STEM “look Like: Big 5 Ideas

- Active Learning
 - Academic discourse
 - Hands-On Learning
 - Student-Directed Learning
 - Multiple Levels of Literacy
- Inquiry or Design Learning
 - Design-Based
 - Scaffolded approach
 - Inquiry-Based

- Authentic Intellectual Based Learning
 - Finding context that is applicable to students
 - Students should be engaged in activities that are important to them
 - Questions
 - Testable
 - Students learn that there can be more than one answer
- Project-Based Learning
 - Problem-based
 - Providing solutions to the problem
 - Applied to learn over time
 - Redesign
 - Student-created product
 - Authentic assessment of student product
- Discipline Integration
 - Cross-curriculum lessons
- Teacher Facilitation
 - Formative assessment is being conducted based on student performance and guided and independent practice.

School Visit Wishlist

- What kind of school (s) would you like to visit?
 - A school that reflects the same demographic and socioeconomic status
- What kinds of things do you want to see?
 - How do they overcome pre-existing issues to move towards successful STEM implementation?
 - How do you create both student and teacher buy-in?
 - Vertical Lesson Plans
 - How do you incorporate STEM in classes that are not involved?
- What STEM implementation questions do you have for school leaders?
- What would you hope to take away from visits?
 - Being able to take some of their best practices back to Lanier High School.

School Training Wishlist

- What topic or topics would you like to address?
- What timeframe/dates are best for your team?
 - April 13-17, 2022
- What follow-up support do you need/anticipate?
 - Targeted Training that supports STEM implementation in a similar school environment

- Discipline-Specific STEM implementation Training (i.e. Science, Art, Music, Math, English, etc.)
- What do you hope to see in place by the end of this school year?
 - Cross Curriculum STEM lessons between teachers in the building.