

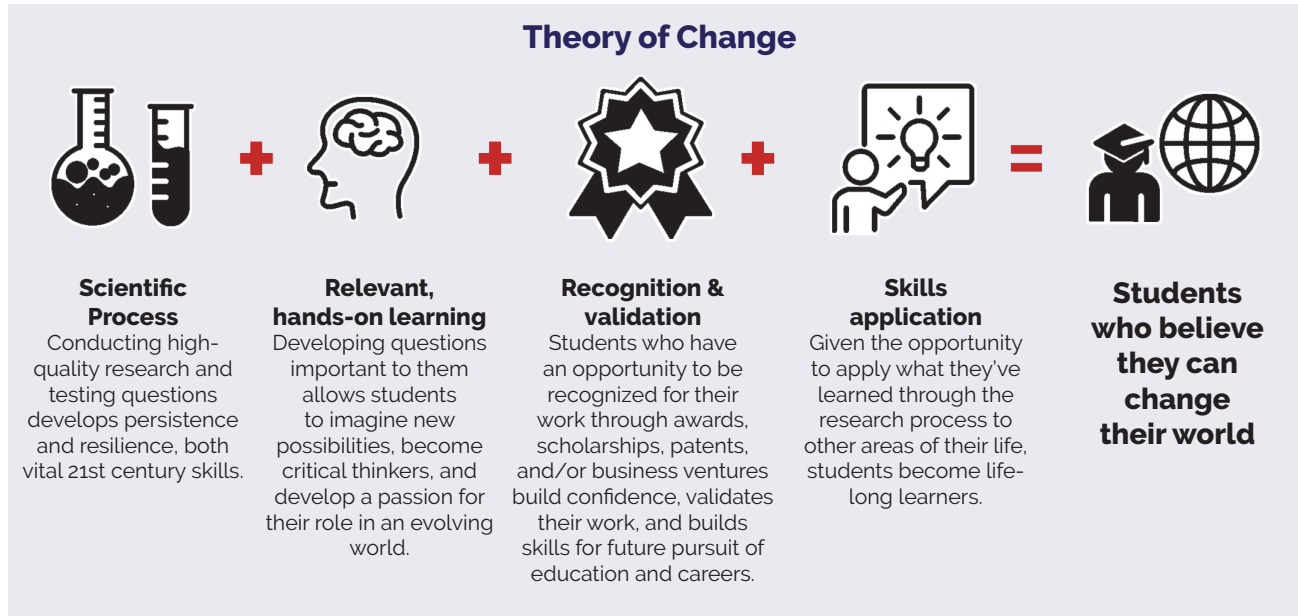
Science Coach Produces STEM Interest, STEM Persistence and STEM Proficiency



About Science Coach

In sports, there's a head coach and assistant coaches that mentor, guide, and challenge student athletes to excel on and off the field. Science Coach takes this traditional sports team approach and applies it to the STEM arena. Utilizing trained, equipped, and compensated teacher coaches, we offer a proven system that excites and empowers teams of 6th - 12th grade STEM students to complete high-level research projects for entry into science fairs or other competitions.

The Science Coach program offers a unique and year-long job-embedded professional development where maverick teachers get the scientific methodology training they need to help coach their students to create high-level research projects. Supported by an experienced head coach, ample project supplies, current data collection equipment, a robust Science Coach curriculum and a \$2,000 stipend, teachers and students take an immersive STEM learning experience that forever changes their lives.



By giving students a mix of choice and responsibility, cognitive concepts and practical activities - supported by a caring teacher coach - our system helps schools and teachers engage students in learning that is rigorous, relevant, and rewarding.

What Is Unique?

- We have created the first full-year independent research curriculum that teaches research methodology.
- Science Coach is the only year-long job-embedded professional development program that focuses on independent research for 6th-12th grade teachers.
- Invented by, created by, led by former or current educators.

Educate. Experiment. Achieve.

Our Vision: Empowering generations to change the world by:

- Asking why
- Discovering why
- Connecting why
- Communicating why

Mission: Coaching students to solve real-world problems by integrating the ART of imagination with the SCIENTIFIC process.

Purpose: We believe the scientific process is the best tool to excite and empower STEM students to change the world.

Our System

Science Coach is an easy-to-implement, comprehensive system for teachers and students that includes:



**Intensive,
Year-Long
Professional
Development**



**Coach
Stipend**



**Independent
Research
Curriculum**



**Curriculum
Support
Materials**



**Research-
Specific
Supplies**



**Data
Collection
Equipment**



**Online
Outcomes
Portal**

How We Define Success*

21st Century Skills

- Persistence: 70% of students who start the Science Coach program will complete a project. 60% of students will declare 1 or more failures having been experienced while doing their project.
- Resilience: 40% will enter and compete in more than one competition. 60% of students display increased self-confidence due to their Science Coach experience.
- Collaboration: 50% of the student presentation boards will cite assistance from 1 or more people.

Recognition

- 10% of students who participate in a fair, will move on to the next level science fair competition
- 3% of students will advance to the ISEF (Int'l Science & Engineering Fair)
- 60% of students will receive awards for their project
- 50% of coaches will have students compete in next level fairs and 10% of them will win awards at these competitions

Integration

- 70% of the students will be able to demonstrate how to use scientific processes to address a real-life situation.
- 60% will have used an interdisciplinary approach of 4 or more school subjects in their project creation
- 85% of students will receive a passing grade or higher in their STEM research class (Impact Genome: STEM Proficiency)
- 70% of the students will express an intention to declare or have declared a STEM-related postsecondary major

* Aligned with Impact Genome Project: STEM Education

Our Curriculum Modules*

1. Introduction to Research
2. Developing a Research Question
3. Conduct a Literature Review
4. Research Ethics & Integrity
5. Study Design I
6. Study Design II
7. Conducting Your Experiment
8. Data Analysis Using Descriptive Statistics
9. Data Analysis Using Statistical Analysis
10. Results & Conclusions
11. Writing a Scientific Paper
12. Presenting Results

* Aligned to applicable SEP's of NGSS

Science Coach creates diverse, life-long STEM learners

I would like to thank you for all of your support and guidance throughout my high school years as I certainly would not be in this current position (pre-med biology major and chemistry minor, American Psychiatric Association's Black Men in Psychiatry Early Pipeline Program, Global Education Awareness Undergraduate Research Program) without it. Your research courses have inspired me to be a life-long learner and to aspire for goals I would have never imagined. Once again, I am very grateful to have had to the opportunity to be your student.

*Rajon Scott, research student of
Science Coach Jennifer Hess, Wentzville R-4*



Science Coach
EDUCATE • EXPERIMENT • ACHIEVE

**Call Science Coach at 314-472-3302
or visit us at www.sciencecoach.org to get involved.**

Donations can be made on-line or by check payable to:
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