

STEM & Civics Enrichment Program

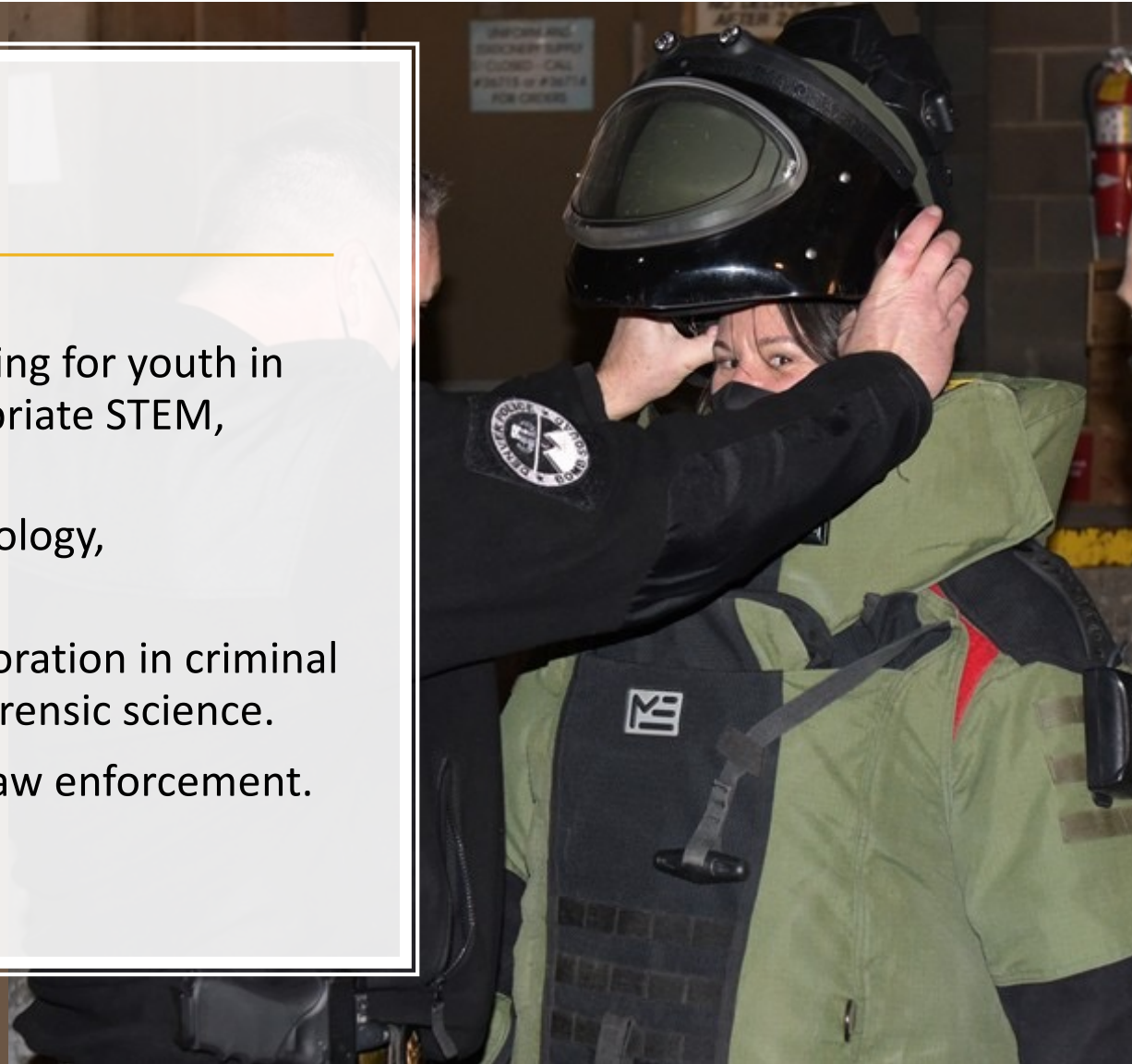
Exploring careers in criminal justice, law enforcement, and forensic science through hands-on learning designed to ignite an interest in science, technology, engineering, math, and civics.



DENVER POLICE
MUSEUM

Program Goals

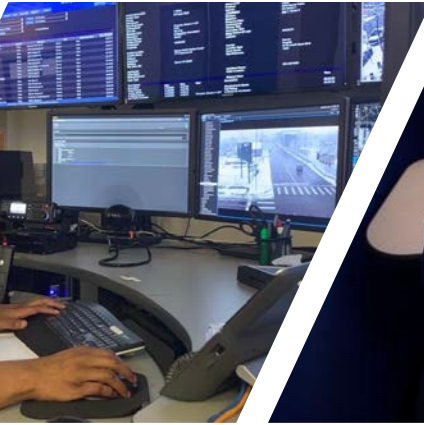
- Incorporate fun, hands-on learning for youth in grades 7-8 to deliver age-appropriate STEM, civics, and wellness activities.
- Spark curiosity in science, technology, engineering, math, and civics.
- Create pathways for career exploration in criminal justice, law enforcement, and forensic science.
- Build trust between youth and law enforcement.





Colorado Essential Skills

- Communicator
- Problem Solver
- Community Member
- Empowered Individual



Modules

1. METRO/SWAT Team
2. Police Tech
3. 911 and Police Communications
4. Law & Order
5. Forensic Science



Module #1: METRO/SWAT Team

Module: METRO/SWAT Team

Educational Outcomes

Science and Engineering Practices, including:

- Expose students to professional work environments
- Ask questions and define problems

Colorado Academic Standards for Comprehensive Health:

- Deepen students' understanding of ways to set and maintain healthy relationships and continue to investigate healthy eating/living habits, positive communication strategies, effective decision making, and ways to ensure personal and community safety.*

*Source: <https://www.cde.state.co.us/standardsandinstruction/2020cas-7-guide#sc>





Module: METRO/SWAT Team

Competencies

Competency	Performance Indicator	Meets Expectations
Gain career awareness	Complete a post-module quiz about possible careers in STEM and law enforcement.	I can explain the different types of skills needed for various jobs in law enforcement and STEM.
Strengthen physical, social, and emotional wellness	Solve a post-module problem that demonstrates understanding of healthy activities and nutrition.	I can explain the connection between exercise, nutrition, and emotional wellness.
Ask questions and define problems	Identify a problem and use critical thinking skills to develop a question.	I can develop a question to help define a problem.

Module: METRO/SWAT Team

On-site Activities

- Introduction to Metro/SWAT
- Break into 3 Groups (rotate through each set of activities)
 - A. SWAT Gear and Safety
 - Bearcat
 - Robot
 - Kevlar vest and protective gear
 - B. SWAT Tech and Equipment
 - K-9 Unit
 - Command center/Historic car
 - Drone
 - C. Physical Fitness/Nutrition
 - Nutrition and exercise equipment



Module: METRO/SWAT Team

In-classroom Activities (Pre)

- Information about nutrition, exercise, and emotional wellness.
 - Partner with school Nutritionist, Phys Ed, Counselor, etc?
- Discussion: What is a SWAT Team and what do they do?
- Formula for how to ask a question and define a problem
- Pre-program evaluation



Module: METRO/SWAT Team

In-classroom Activities (Post)

- Discussion:
 - Has your opinion or awareness of what the Metro/SWAT team does changed?
 - What was the most surprising thing you learned today?
- Post-program evaluation



Module: METRO/SWAT Team

Meaning

Essential Questions: *Students will keep considering...*

- EQ1.1 What skills are needed to become a scientist, engineer, computer programmer, nutritionist, or law enforcement officer?
- EQ1.2 How do members of the SWAT team stay safe and help keep my community safe?
- EQ1.3 What does effective teamwork look like?

Meaning

Acquisition

Domains/Understandings	Transfers/Learning Objectives	Knowledge and Skills
<p><i>Domains are key understandings and long-term takeaways that go beyond factual knowledge into broader and more conceptual comprehensions. Domains are areas of expertise that an employer in a specific field may seek.</i></p> <p><i>“I will be able to address real-world challenges because I understand...”</i></p>	<p><i>Objectives articulate what skills students need to be able to do. (The learning objectives will become targets of assessment.) Objectives are functions that directly relate to the workplace or in an applied academic setting.</i></p> <p><i>“In the workplace or academic setting, I will need to know and be able to...”</i></p>	<p><i>Knowledge and skills include the essential facts and basic concepts that a student should know and be able to recall in order to perform the competency. Knowledge and skill statements are foundational to the performance of a skill.</i></p> <p><i>“After I learn the information, I will be able to use my knowledge and skills to...”</i></p>
<p>D1: Problem-solving Process</p> <p>Many disciplines, including law enforcement, engineering, computer science, and forensic science, use an iterative problem-solving process.</p>	<p>LO1: Define a problem using analytical and critical thinking skills.</p>	<p>KS1.1: Ask questions to clarify and define a problem.</p> <p>KS1.2: Document a process, including questions, observations, and possible solutions in a notebook.</p>
<p>D2: Situational Awareness</p> <p>Situational awareness is a key skill that is required in many professional settings, including law enforcement, engineering, and others. Additionally, practicing situational awareness helps youth build confidence and increase personal safety.</p>	<p>LO2: Observe and analyze a situation to make decisions.</p>	<p>KS2: Apply the “OODA Loop” to Observe, Orient, Decide, and Act based on a specific situation.</p>
<p>D3: Communication</p> <p>Communication, both technical and professional, is essential to being successful in life, school, and career.</p>	<p>LO3: Communicate effectively for specific purposes and settings.</p>	<p>KS3: Communicate to meet the needs of the audience and be appropriate to the situation.</p>
<p>D4: Career Awareness</p> <p>It is important to prepare a flexible education plan that matches your interests, knowing that you can change or modify that plan as you discover more about career opportunities.</p>	<p>LO4: Identify a variety of careers related to law enforcement, science, technology, engineering, math, nutrition, health, and physical fitness.</p>	<p>KS4: Explore a variety of careers related to law enforcement, science, technology, engineering, math, nutrition, health, and physical fitness.</p>