

My STOY Journey

What a year it has been, but this is only the beginning.

2017 NM Teacher of the Year

Stephanie Gurule-Leyba

Teaching for 22 years

Biomedical Sciences

Capital High School, Santa Fe Public Schools





“You are not going to know until you try. You have to lead by example Mrs. Leyba.”

August 23, 2016



STOY Induction Dallas, TX

Met the other State Teachers
of the Year
Shared ideas and best
practices
My story and platform



Washington D.C.

- Teacher Celebration and Gala
- Visits to the U.S. Department of Education and the U.S. Capitol



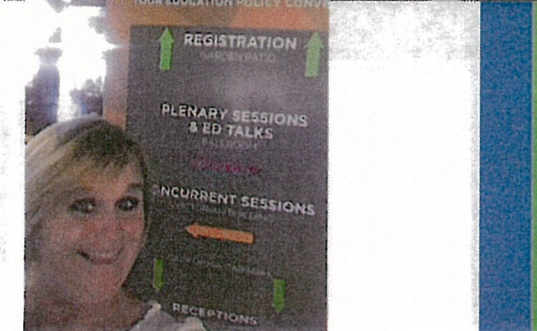
The White House





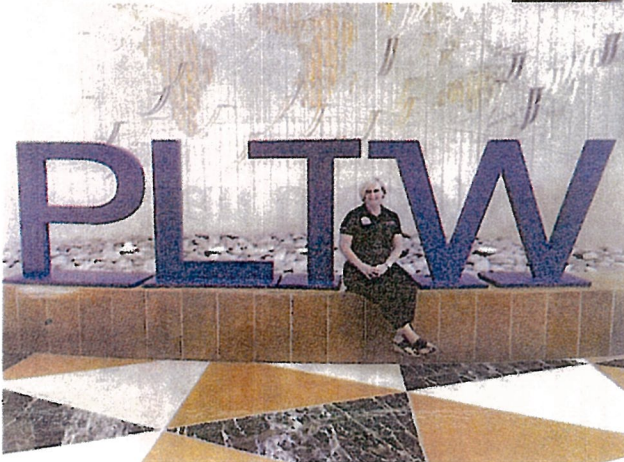
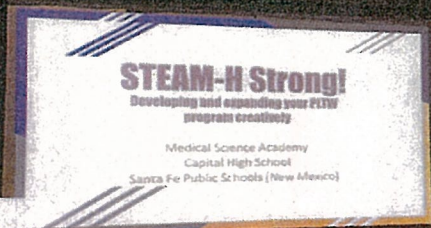
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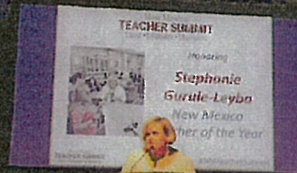
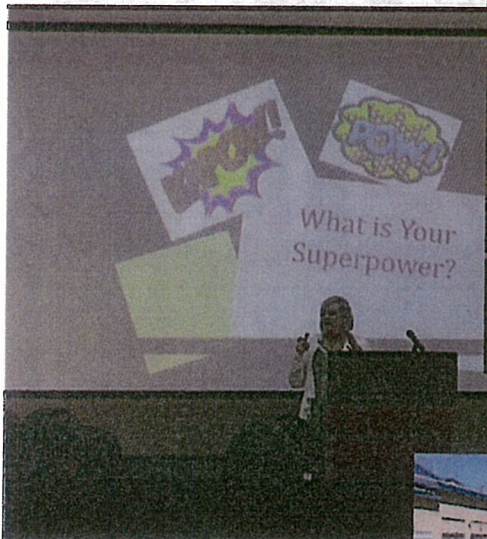
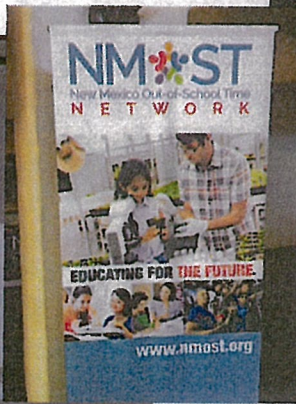


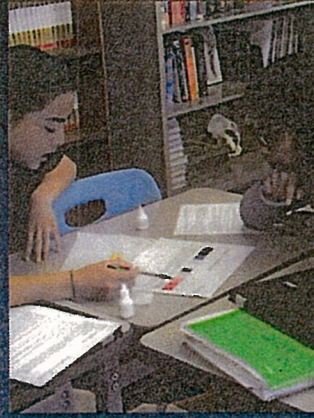


Orlando, FL



Statewide speaking engagements





STEAM-H Education & Career Pathways

Preparing Students for the 21st Century and Beyond

If there is a time to worry, it is now.

A recent study shows

- recent college graduates are not prepared in applying knowledge and skills in real world settings, critical thinking skills and written and oral communication skills.
- fewer than 3 in 10 employers say that recent college graduates are prepared for a career. This includes areas of ethical decision making and collaboration.

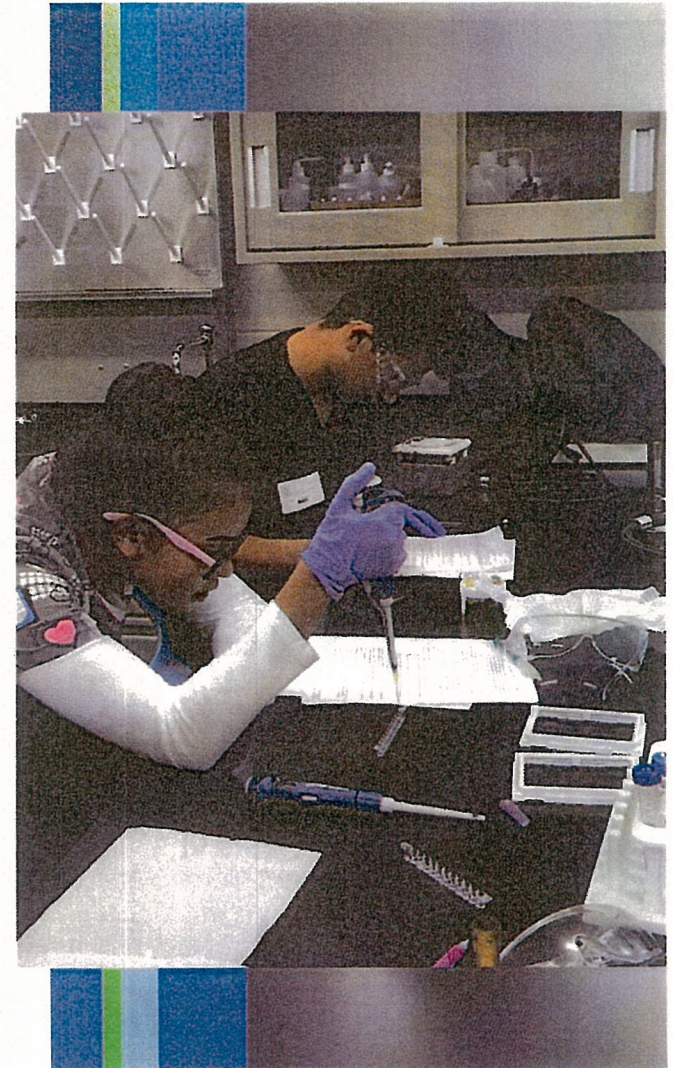
~Association of American College and Universities, 2015



“Healthcare is Recession Proof.”

~Kim Brummett

- STEM Occupations are at above average growth.
- Between 2014-2024 → projected growth of 28.2% .
 - 1. Computer Technology
 - 2. Engineering
 - Science Educators (top 5)
- Healthcare Occupations → fastest growing group
- Between 2014-2024 → projected growth of 26%.
 - Includes 3.1 million new jobs
 - Another 3.4 million to be replaced (retirement, attrition, etc.)



“

“To help students dream differently and develop a sense of career interests, we must illustrate how classroom concepts apply to real jobs.”

*~Vince Bertram
President & CEO PLTW*



History of the Capital High School Biomedical Program

2006-2008

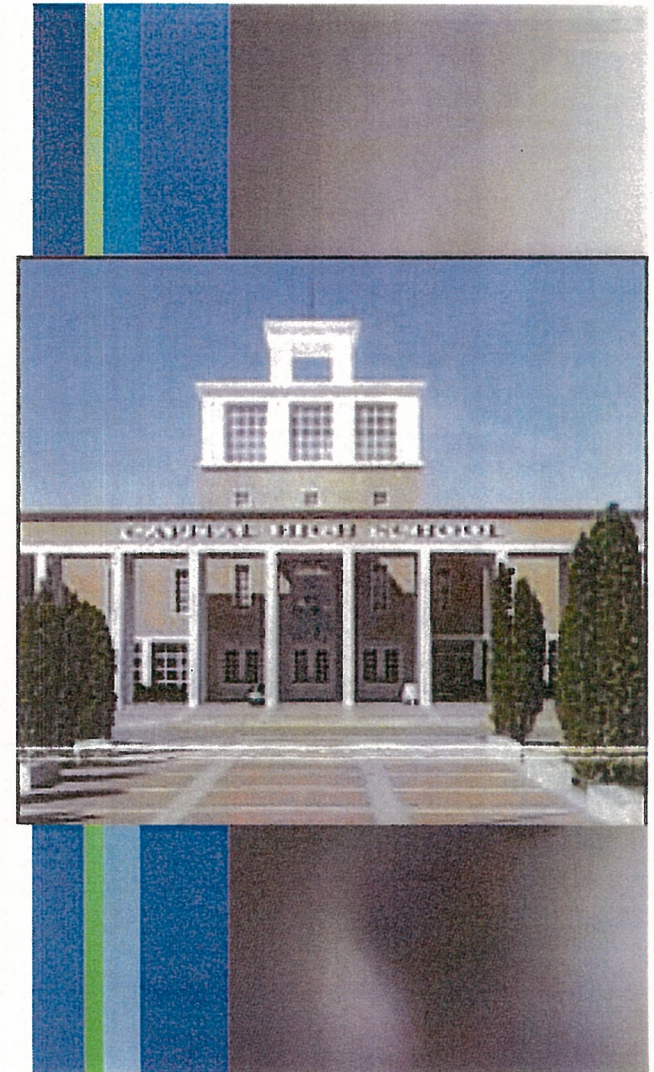
- Introduction to Health Care Careers, stand alone course
- Large increase in student numbers over the three years
- Staffing level increase
- Academy structure

2009-2011

- Beginning of implementation of the PLTW courses
- Synthesis of the current academy

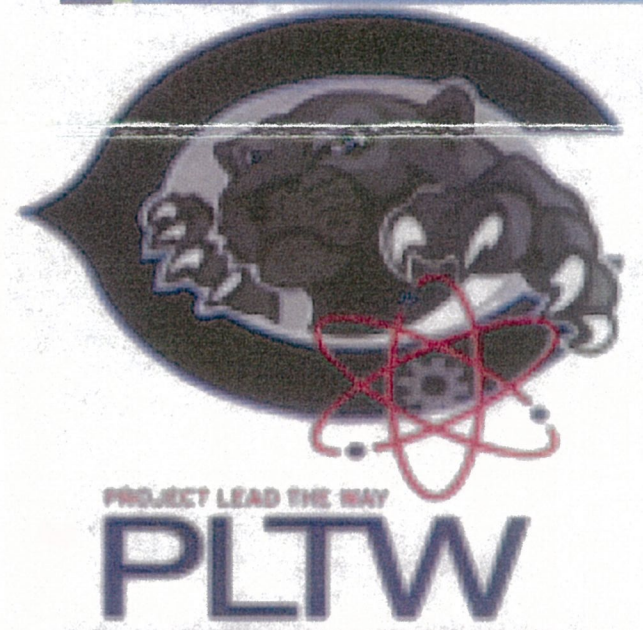
2011-2012

- Academy becomes the prerequisite for AME



■ Our Mission

Our mission is to identify students interested in health careers, offer real world applications, and get them excited in preparation for postsecondary experiences.



Current High School Programming

- **5 Course Pathway**
 - **4 Project Lead the Way (pltw.org)**
 - **Principles of the Biomedical Sciences**
 - **Human Body Systems**
 - **Medical Interventions**
 - **Biomedical Innovations**
 - **Applied Medical Experience**
 - **Site designed Senior Capstone Experience**
 - **Mentorship Program**
 - **Scholarship Program**



Dual Credit & Certification

- **On site dual credit opportunities**
 - **14-16 credit hours**
 - **Medical Terminology or CNA**
 - **Introduction to Healthcare Careers**
 - **BIOL 107 & 107L**
 - **BIOL 108 & 108L**
- **Partnership with SFCC & ENMU**
- **Certification opportunities**
 - **CNA**
 - **First Responder**
 - **BLS for Healthcare Providers**
- **LPN Program starting in 2018-2019**
 - **Cohort of 8 juniors**
 - **5 semesters of coursework (including one summer)**



hosa

future
health
professionals

- Leadership
- Teamwork
- Community service
- Academic competition
- Scholarships & college recruiting





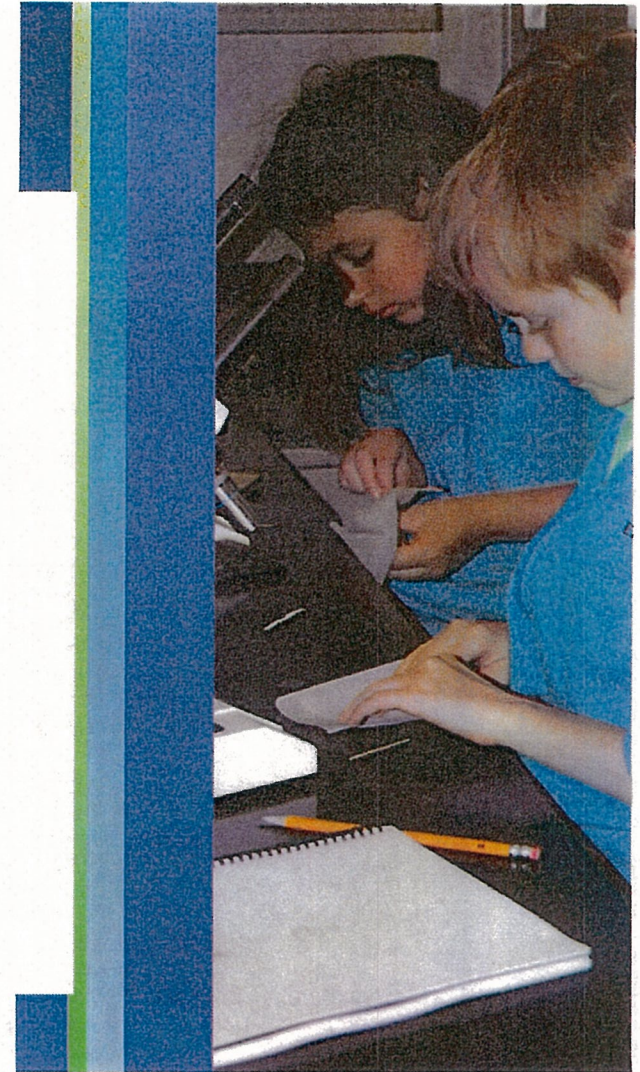
Starting STEAM-H Education & Career Exploration Early

Why start STEAM education early?

SCIENCE

Grade (2017 N)	2015 Proficiency (%)	2016 Proficiency (%)	2017 Proficiency (%)	2015 to 2017 Difference (%)
Grade 4 (25,731)	42.3	42.8	40.0	-2.3
Grade 7 (24,245)	39.7	44.6	44.3	4.6
Grade 11 (22,136)	35.9	39.1	34.9	-1.0

- SBA Science includes four performance levels: 1, 2, 3, and 4.
 - Level 1: Beginning Step
 - Level 2: Nearing Proficiency
 - **Level 3: Proficient**
 - **Level 4: Advanced Proficient**



■ **Did you know.....**

By the time students reach 4th grade, one-third of students have lost an interest in Science and Mathematics.

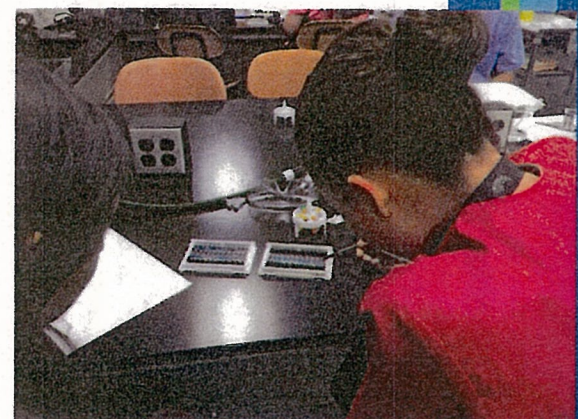
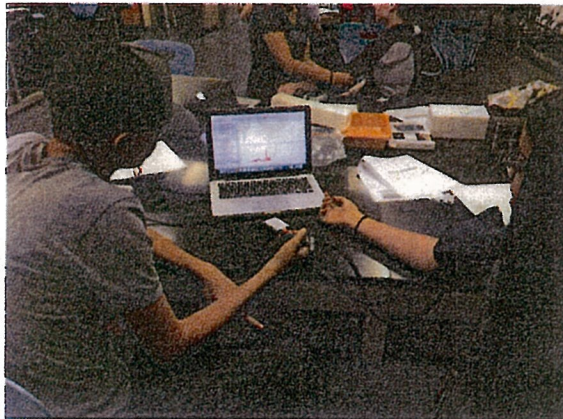
By 8th grade, almost 50% have lost interest or deemed it to be irrelevant to their education or future plans.

Tony Murphy, U.S. News, August 29, 2011



STEAM proficient students are able to

- Answer questions,
- Investigate global issues,
- Develop solutions for challenges and real world problems.



■ Scrub Club Mission

Our mission is to expose students to STEAM-H and give them the opportunity to explore areas in healthcare and medicine.



What is Scrub Club?

- Summer enrichment program that focuses on STEAM using Healthcare and Medical concepts as a foundation.
- Serves 4th through 8th grade students in the Santa Fe Public Schools.
- Comprised of three levels. Students are in the program for 1-3 years.



Scrub Club History

2012 - enrollment of 55 students

- 5th and 6th grade students
- 5 teen mentors
- 1 teacher

2017 - enrollment of 230 students

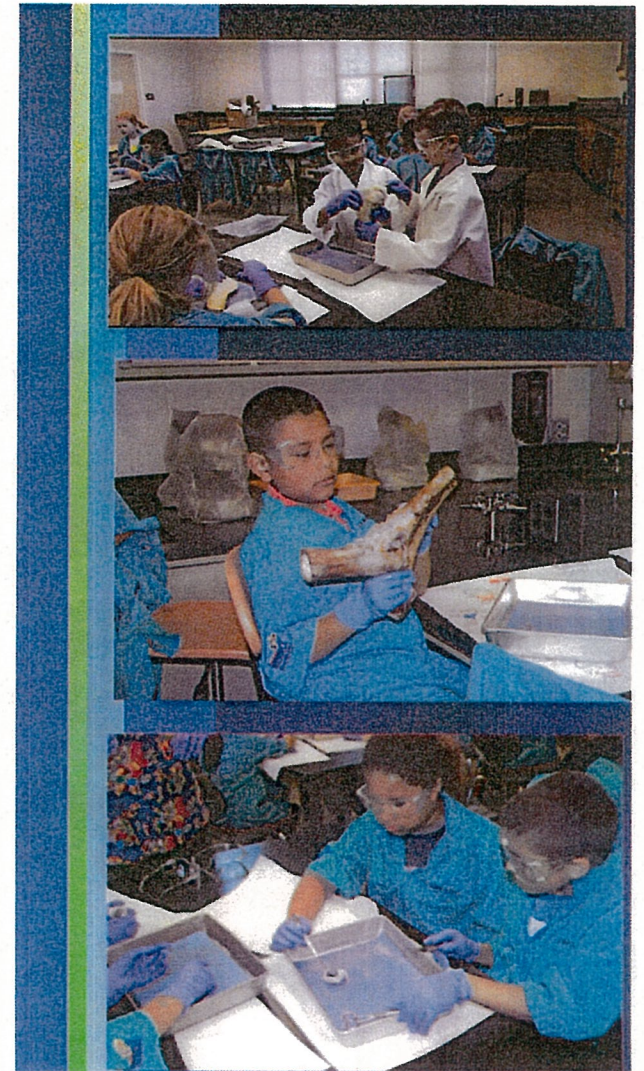
- 4th through 8th grade
- 26 teen mentors
- 3 teachers



3 Levels = Successful Relationships

LEVEL 1

- Explores the Human Body focusing on three areas:
 - body systems
 - body needs (nutrition)
 - positive relationships.
- Level 1 is for students entering 4th through 6th grades.



3 Levels = Successful Relationships

LEVEL 2

- Explores crime scene investigations focusing on four areas:
 - Physical science
 - Life science
 - Earth science and archaeology
 - Anthropology
- Level 2 focuses on students that participated in level 1.



3 Levels = Successful Relationships

LEVEL 3

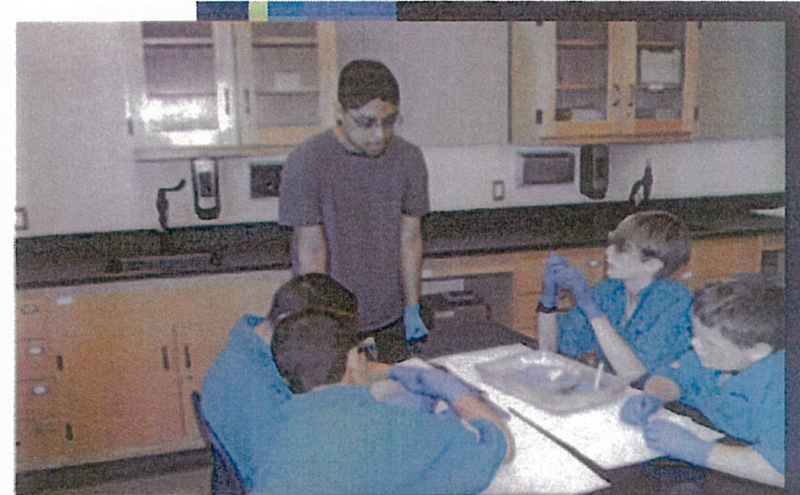
- Explores College-Career Readiness focusing on four areas:
 - Career lab preparation
 - Emergency preparedness
 - Teamwork
 - Leadership skills
- Level 3 focuses on students that participated in level 2.



Teen Mentors- the secret ingredient

We can't do it alone

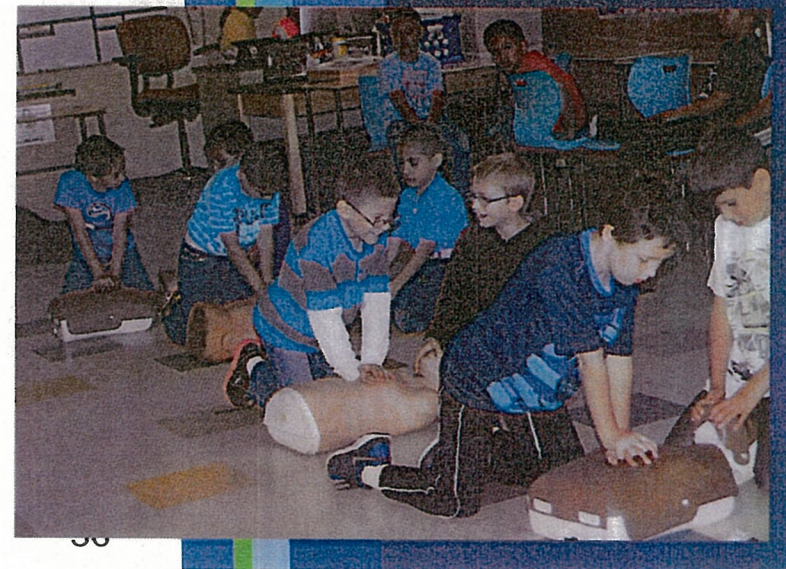
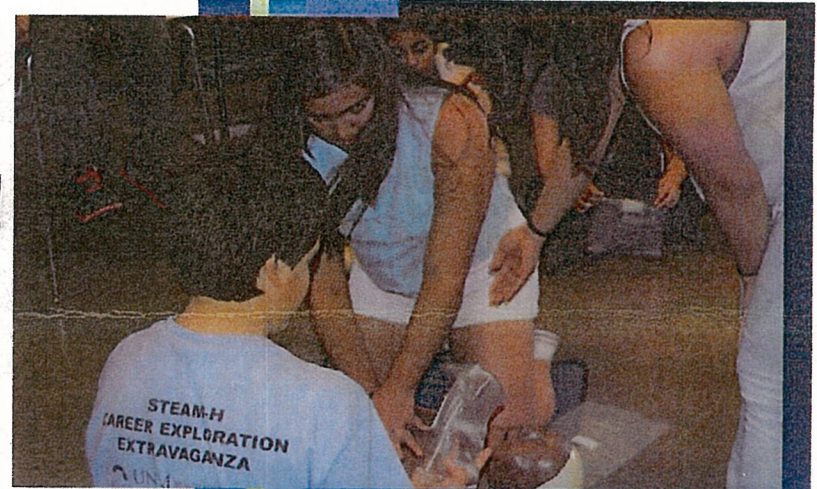
- Students work in collaboration with mentors during class.
- Part of the Medical Science Academy.
- Must be in good standing



We earn certifications too!

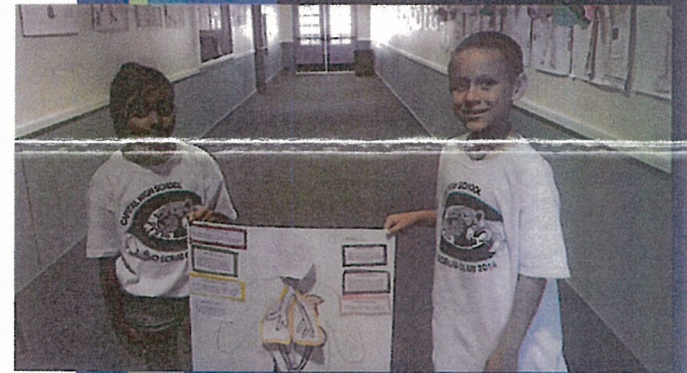
CPR with AED & First Aid

- Full day training with a certified instructor.
- Full commitment from student and parent.
- Teen mentors assist with the training.
- Students certification fee covered by program.



“Something can be hard to learn and I don’t mind, as long as I understand why I am learning it.”

-2014 Scrub Club 4th grade student



Thank You!

Questions?

You can find me at

- Email: sgurule@sfps.k12.nm.us or sguruleleyba@gmail.com
- 505-660-9378 (cell) & 505-467-1043
- Twitter: @sguruleleyba
- Instagram: 2017nmtoy & chsscrubclub



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(http://ascdedge.ascd.org/)

MENU

4

October 10, 2017 by Inservice Guest Blogger (http://inservice.ascd.org/author/admin/)

Using Creativity to Build Relationships and Foster Student Success

When we teach a specific subject or a specific grade, it is important to remember that we are teachers first. Students are our priority and we use different subjects as our foundation. We teach them about passion, life, and the truth of the real world. We nurture their curiosity and help them develop creativity, problem solving and critical thinking skills. We teach them to be leaders and to communicate. We make sure that we are building positive relationships with our students because we know that will speak volumes for the rest of their school year. Of course it is our goal to prepare our students for college and career but we also have to make sure that we are preparing them for life. We need to change our students' mindset; college readiness is not just about doing well in class and earning good grades. It is important that students' learning is focused around a skills-based curriculum.

As a biomedical science teacher, I enjoy introducing my students to real world skills that I know that they will use as they continue moving forward. Science, Technology, Engineering, Arts, Math, and Healthcare (STEAM-H) education is active and focuses on a student-centered learning approach. STEAM-H is unique because the fields often build on each other. New knowledge leads to curiosity that then leads to research, discussion and innovations. Students engage in questioning, problem solving, collaboration, and hands-on activities while they address real life issues. Adding the art and design prepares our students with the skills necessary to continue into the 21st century and beyond.

Let me take you back to the beginning. In 2011 my daughter Briana (who happened to be in the 4th grade at the time), without me knowing, was making some real world and educational observations of her own. After months of sitting in the back of my classroom and doing what I believed at the time to be her homework, my daughter walked into the lab and said something that would forever change my outlook on what I taught and who I taught. "Mommy, it would be so cool to have a summer program that teaches us younger kids what you teach your high school kids! We would also get to learn more Science and Math and understand why we need it's stuff. It would be so much fun!" Her idea planted a seed and I started to think, *why couldn't I start them earlier? Why can't younger students be introduced to career readiness and career skills?* By the time students reach fourth grade, a third of boys and girls have lost an interest in science. By eighth grade, almost 50 percent have lost interest or deemed it irrelevant to their education or future plans. At this point in the K-12 system, the STEM pipeline has narrowed to half. That means millions of students have tuned out or lack the confidence to believe they can do science (Murphy, 2011

(Murphy,%20Tony,%20%22STEM%20Education--It's%20Elementary,%22%20(2011-1)%20Web,%20Jan,%202012.%20https://www.usnews.com/news/articles/2011/08/29/stem-education--its-elementary/).

Scrub Club started as a pilot program in June 2012 with 55 up-and-coming 5th and 6th grade students. Scrub Club, a three-level program, introduced students to the world of healthcare using human body systems and crime scene investigations as the foundation and immerses the students in STEAM-H activities using real-life issues and problems. For example, in Level 1, students learn about the heart, they dissect the heart, learn CPR and have open Socratic discussions about health ailments involving the heart that have affected them on a personal level. In Level 2, Crime Scene Investigations, students are introduced to forensic anthropology as they come across a mock scene known as "The Deadly Picnic". After learning about how bones can be used to help solve crimes students are put to the test as they study, measure and analyze a variety of bones such as the humerus, pelvis and skull to identify a missing person. Students then immerse themselves in the field of facial reconstruction to learn how a skull can be used to "rebuild the identity" of a person. Level 3 is an accumulation of everything that the students have learned in the first two levels of the program. Students learn more about college and career readiness as they focus on applicable skills. From DNA extraction, micro pipetting, and guest speakers, students continue to learn more about the skills needed in real world jobs in healthcare. Level 3 students immerse themselves in the world as a healthcare professional as they complete a forensic autopsy, perform vital signs on each other, and complete a certification course in CPR with AED and

Fire

Over 1000 students in the Santa Fe Public Schools have participated in Scrub Club. Scrub Club is not your typical summer enrichment program as teen mentors and educators are the key to the program's success. Although there are three highly qualified teachers on hand, these teen mentors, all who are a product of our high school medical pathway, are actually the teachers in these classrooms. It is exciting to watch these teens display their passion for something they really enjoy doing and passing their knowledge on to the younger generation. Although many of the teen mentors are continuing their studies to pursue their dreams in healthcare, a few of them have decided that they want to continue in education themselves. Some have decided to pursue a minor in education and maybe, just maybe, we have started another generation of teachers.

Scrub Club has taught my students, teen mentors, parents, and myself that we need to have a growth mindset. Success is about becoming smarter and stepping outside of our comfort zone and taking chances. It has taught us that learning can be rigorous as long as it is relevant and fun! Scrub Club has also taught us that building relationships is so important to student success. We have been blessed to be able to spend multiple summers with students and watch them grow as they move from one level to the next in the program. We have been able to watch our teen mentors grow and continue to share their passion. Today, we are enjoying our Scrub Club students as they begin to enter their high school years. From the original 55 students who helped me build this program, all of them are in high school and 42 are currently in our medical pathway. As for my daughter, now 16 years old, she is starting her senior year of high school (she will be graduating a year early) and is now a teen mentor in Scrub Club herself.

Stephanie Gurule-Leyba is in her 21st year of teaching at Santa Fe's Capital High School, where she teaches medical sciences in the school's Medical Sciences Academy, where she also serves as department Co-Chair. This Spring, Stephanie was named 2017 New Mexico Teacher of the Year by the state's Public Education Department. To learn more about this program, you can visit the COSSO website (<http://www.cosso.org/hoy.html>).

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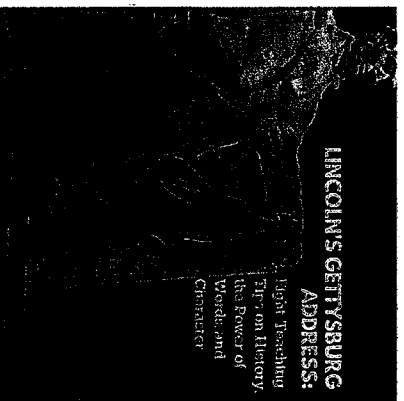
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Scrub Club 2017



Scrub Club is a STEAM-Healthcare/Medical (Science, Technology, Engineering, Art and Math) Summer Enrichment Program. It is a three-week program full of fun, hands-on activities. Students will learn the basics of microscope work, dissection, research, collection and analysis of data using computer technology. *Scrub Club* is hosted by the Medical Science Academy at Capital High School held on the *Capital High School* campus. Free breakfast and lunch will be provided to all students throughout the program. Please see below for registration dates and times. Registration fee is \$35.00 per student.



Registration Dates

Returning Students: March 7, 9, March 14, 15
5:00—7:00 p.m. in Room 103 (near entrance)

New Students: March 28, 29 & April 11, 13
5:00—7:00 P.M. in Room 103 (near entrance)



Level 1 emphasizes and explores **Healthcare** focusing on three areas: **body systems, body needs (nutrition), and positive relationships.**

Level 1 is for students entering 4th through 6th grades for the 2017-2018 school year.

Only 100 students will be admitted on a first come first serve basis.



Level 2 emphasizes on and explores **Crime Scene Investigations** focusing on four areas: **critical-thinking, physical science, Life Science, Earth Science and Archaeology, & Anthropology.** **Level 2** focuses on students that participated in S.C. Level 1 (during the summer 2016).

Remaining seats available will be opened to new 6th and 7th grade only.



Level 3 emphasizes and explores **Lab Skill-Up and College-Career Readiness** focusing on four areas: **Career Lab Preparation, Emergency Preparedness, Teamwork, Competitive Skills and Leadership Skills.** **Level 3** focuses on students that participated in S.C. Level 2 (during summer 2016).

Remaining seats available will be opened to new 8th grade only.



SCRUB CLUB TEEN COUNSELORS

Your student's group will be assigned two teen counselors throughout their three-week learning experience. Teen mentors are trained as counselors and will be guiding students throughout their summer experience. A coordinator (licensed teacher) facilitates the counselors as they guide the students through the curriculum.



DATES & TIMES

PROGRAM DATES: May 30th -- June 16th

SESSION A—LEVELS 1 ONLY

DROP OFF/SIGN IN: 7:55—8:05 A.M.

PICK UP/SIGN OUT: 12:25—12:30 P.M.

SESSION B—LEVELS 2 & 3 ONLY

DROP OFF/SIGN IN: 12:00—12:10 P.M.

PICK UP/SIGN OUT: 4:00—4:15 P.M.

**PARENT ORIENTATION: May 22nd
5:30 p.m. at Capital High , place TBA**



FOR MORE INFORMATION

Stephanie Gurulé-Leyba
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goo.gl/1Edz



May 30—June 16, 2017
Serving 4th –8th grade students
enrolled in the
Santa Fe Public Schools

SCRUB CLUB LEVEL 1

LEARNING PLAN June 5-9, 2017



	STUDENT DISCUSSION	OBJECTIVE	LEARNING PLAN (1)	LEARNING PLAN (2)
MONDAY, 6/5	How many different organs/parts can you think of in the circulatory system?	I can learn the requirements of a career as an EMT.	<ol style="list-style-type: none"> 1. Guest Speakers: Miguel Romero & Turquoise Trail Paramedics/Fire Department 2. Introduction to careers Introduction to CPR (Infants & adults). 	<ol style="list-style-type: none"> 1. Introduction of the circulatory system (6-1) and how it works. 2. Investigation of blood and microscope observations (6-2) 3. 6-3 Red Blood Cells and why they are important
TUESDAY, 6/6	How many structures of the heart can you remember?	I can explain the function(s) of the circulatory system.	<ol style="list-style-type: none"> 1. Lab: Heart dissection—the internal and external features of a sheep heart 2. Investigation of blood and microscope observations (6-2) (IF NEEDED) 	<ol style="list-style-type: none"> 1. Introduce the concept of the “Heart Cycle” (6-7) 2. Mapping the heart cycle distinguishing oxygenated & deoxygenated blood
WEDNESDAY, 6/7	8-2 Vocabulary: The Respiratory System (crossword puzzle)	I can identify the anatomy of the respiratory system using diagrams and a life-like skeleton.	<ol style="list-style-type: none"> 1. Review yesterday’s activities 2. Introduction of Unit 8: Respiratory System 3. 8-1 The Anatomy of the Respiratory System 4. Modeling Activity: Respiratory System Anatomy 	<ol style="list-style-type: none"> 5. Introduce Nervous system & Lesson 5-1 Electricity from the brain 6. Lesson 5-2: The Structure of the Brain
THURSDAY, 6/8	4-4 Vocabulary: The Neuron (crossword puzzle)	<p>Students will describe what a neuron is and its parts.</p> <p>Students will explain the function of a neuron.</p>	<ol style="list-style-type: none"> 1. Lesson 5-4 Anatomy of the Neuron 2. 5-7 The Spinal Cord 3. 5-10 The Four Senses 	<ol style="list-style-type: none"> 4. Labeling of eye diagram 5. Introduce Lab: Cow eye dissection 6. Activity: Ear Accordion (Hearing)
FRIDAY, 6/9	<p>How many teeth does an adult person have?</p> <p>Does a child have the same number of teeth?</p>	Students will learn how to properly care for their teeth.	<ol style="list-style-type: none"> 1. Guest Speaker: Andrea Gonzalez, Dental Assistant— Discussion/hands-on re: proper dental hygiene. 	<ol style="list-style-type: none"> 1. Continue with Expo project 2. Continue with writing of individual stories for poster 3. Begin work on “My Story” Journal

SCRUB CLUB LEVEL 2

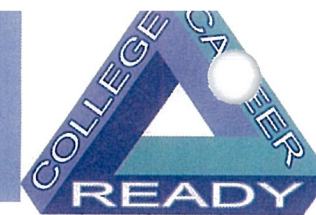
LEARNING PLAN June 5-9, 2017



	STUDENT DISCUSSION	OBJECTIVE	LEARNING PLAN (1)	LEARNING PLAN (2)
MONDAY, 6/5	How do bones help identify a person?	<p>Students will learn how analyzing a crime scene can assist with solving a crime.</p> <p>Students will learn how bones assist with identification of a person.</p>	<ol style="list-style-type: none"> Lesson 4-7: Your Bones Have A Message A Lesson on Forensic Anthropology Lab 4-7: Missing Persons A Lab on Forensic Anthropology 	<ol style="list-style-type: none"> Project: Fictitious Crime Scene-The Deadly Picnic Crime Scene Sketching and photography Observing and analyzing
TUESDAY, 6/6	How can fibers from clothing help with solving a crime?	Students will collect and analyze fiber evidence and unknown powder evidence left at a scene in order to identify its source.	<ol style="list-style-type: none"> Lesson 2-7: Fibers don't fib! — A lesson on fiber analysis Lab: Picking up the pieces—a lab on fiber analysis 	<ol style="list-style-type: none"> Lab: White Powders—A lab on Standardized tests used to identify unknown substances Finalize and analyze data & discussion
WEDNESDAY, 6/7	As a CSI, you are called to a crime scene. What is the first thing you would do?	Students will gain a better understanding of what a crime scene investigator does in their place of work.	<ol style="list-style-type: none"> Crime Scene Investigation Guest Presentation** New Mexico State Police hands-on activities Follow-up and closure of activities and presentation <p>**Guest presentation subject to change due to availability</p>	<ol style="list-style-type: none"> Review yesterday's activities Lesson 2-5: Fingerprint Patterns—A lesson on identification of fingerprints Identify the number of students in class that have loops, whorls, and arches
THURSDAY, 6/8	What is DNA?	Students gain an understanding how DNA serves a purpose in CSI by using a DNA extraction and isolation technique of their own DNA and understand how blood typing serves a purpose and how blood is linked to DNA and genetics.	<ol style="list-style-type: none"> Introduction to DNA: What is it? DNA-The Double Helix DNA coloring & identification 	<ol style="list-style-type: none"> Review yesterday's activities Lab: DNA Extraction— Isolating and extracting DNA from cheek cells. Lesson 3-8: What Type Are You? A lesson inheritance of blood types How are blood inheritance patterns tracked through families?
FRIDAY, 6/9	What are my favorite things that I have learned in the past two weeks of Scrub Club?	Students will gain an understanding how blood can be used to identify suspects involved in a crime.	<ol style="list-style-type: none"> A lesson on genetic pedigree maps Lab 3-8: Could the Criminal Live in this House? A Lab on Inheritance of Blood Types Lesson 3-9: Give it a Test –A Lesson on Testing for the Presence of Blood — 	<ol style="list-style-type: none"> Continue work on Expo project. "My Story" Journal: Individual project

SCRUB CLUB LEVEL 3

LEARNING PLAN June 5-9, 2017



	DISCUSSION	OBJECTIVE	LEARNING PLAN (1)	LEARNING PLAN (2)
MONDAY, 6/5	How many organs/parts of the urinary system can you identify?	<p>I can learn and apply basic laparoscopic techniques to solve medical diagnoses.</p> <p>I can learn the requirements of a career as an EMT.</p>	<ol style="list-style-type: none"> 1. Guest Speakers: Miguel Romero & Turquoise Trail Paramedics/Fire Department 2. Introduction to careers 3. "Patient Packaging" 	<ol style="list-style-type: none"> 1. Kidney Donation 2. Class discussion of the steps necessary to remove a kidney. 3. Introduction to laparoscopic techniques 4. Activity: laparoscopic surgery on a macroscopic scale.
TUESDAY, 6/6	What does the terms "urinalysis" and "laparoscopic" mean?	I can determine if pieces of evidence contain saliva and if it contains cells that hold DNA that could be used to identify individuals involved in a crime.	<ol style="list-style-type: none"> 1. Introduction to urinalysis and the purpose of its use. 2. Lab: urinalysis will be used to diagnose a medical problem 3. Discussion: Review of Enzymes 4. Discussion: DNA -The Double Helix 	<ol style="list-style-type: none"> 5. Activity: Origami DNA model 6. Lab: DNA studies—Tiny Dots and practice gels activity.
WEDNESDAY, 6/7	What do you know about the area of Physical Therapy and Athletic Training?	Students will learn about the job description and college preparation to plan and prepare for a career in Physical Therapy and Athletic Training.	<ol style="list-style-type: none"> 1. **Guest Speaker: Tom Fagan, Physical Therapist (P.T.) 2. Career and college readiness in the area of Physical Therapy and Athletic Training <p>**Subject to change</p>	<ol style="list-style-type: none"> 1. Lab: DNA Extraction from isolated cheek cells. 2. Discussion: The Nervous System 3. Specialized areas of the brain 4. Activity: Brain Mapping
THURSDAY, 6/8	How can saliva be used in a crime scene?	I can determine if pieces of evidence contain saliva and if it contains cells that hold DNA that could be used to identify individuals involved in a crime	<ol style="list-style-type: none"> 1. Lab: Caught By a Kiss—using evidence contained in saliva to solve a crime. 2. Finalize and analyze data & discussion of results. 	<ol style="list-style-type: none"> 3. Lab: Brain Dissection—flagging the parts of the brain following student diagram.
FRIDAY, 6/9	<p>A jogger has stepped in a pothole and sprained his ankle. What organ systems have suffered damage?</p> <p>WEEKLY WRAP UP QUESTION: What are three favorite things you learned this week?</p>	Students will understand how gel electrophoresis can help analyze DNA.	<ol style="list-style-type: none"> 1. Guest Speaker: Andrea Gonzalez, Dental Assistant—Discussion/hands-on re: proper dental hygiene 	<ol style="list-style-type: none"> 2. Scrub Club Expo Group Poster Collage 3. Begin assignments and writing of stories for poster 4. "My Story" Journal: an individual project



Medical Science Academy at Capital High School

Principles of the Biomedical Sciences (PBS)—9th/10th grade

Students explore the concepts of human medicine and are introduced to research processes and to bioinformatics. Hands-on projects enable students to investigate human body systems and various health conditions, including heart disease, diabetes, sickle cell disease, hypercholesterolemia, and infectious diseases. Over the length of the course, students work together to determine the factors that led to the death of fictional person. After pinpointing those factors, the students investigate lifestyle choices and medical treatments that might have prolonged the person's life.

Human Body Systems (HBS)—10th/11th grade

Students examine the processes, structures, and interactions of the human body systems to learn how they work together to maintain homeostasis and good health. Using real-world cases, students take the role of biomedical professionals and work together to solve medical mysteries. Hands-on projects include designing experiments, investigating the structures and functions of body systems, and using data acquisition software to monitor body functions such as muscle movement, reflex and voluntary actions, and respiratory operation. College credit can be awarded through Eastern New Mexico University. (dual credit)

Medical Interventions (MI)—10th/11th grade

Students projects investigate various medical interventions that extend and improve quality of life, including gene therapy, pharmacology, surgery, prosthetics, rehabilitation, and supportive care. The course explores the design and development of various medical interventions, including vascular stents, cochlear implants, and prosthetic limbs. In addition, students review the history of organ transplants and gene therapy and stay updated on cutting-edge developments via current scientific literature. Using 3D imaging, data acquisition software, and current scientific research, students design a product that can be used as a medical intervention.

Biomedical Innovations (BI)—11th/12th grade

Students apply their knowledge and skills to answer questions or solve problems related to the biomedical sciences. Students design innovative solutions for the health challenges of the 21st century as they work through progressively challenging open-ended problems, addressing topics such as clinical medicine, physiology, biomedical engineering, and public health. They have the opportunity to work on an independent project and may work with an online mentor. Throughout the course, students are expected to present their work to an adult audience that may include representatives from the local business and healthcare community.



Medical Academy Mission:

To identify students interested in a medical career, get them excited, offer the best training possible, prepare them for post-secondary experiences, and keep our students local.

Applied Medical Experience (AME): Senior Capstone Experience (12th grade only)

The capstone experience is a flexible design, which can prepare students to have a better understanding of the health care system in America, be better prepared to meet changes in the health care system in American society, and have a fundamental understanding of the process of setting and accomplishing goals through the use of appropriate sources. College-level credit can be awarded through Eastern New Mexico University.

Students are matched up with a community mentor in the field that the student is interested in. Students work side-by-side with their assigned mentor to become more knowledgeable in their area of interest. (dual credit)

