Establishing Student Engagement in the STEM Fields via the Science Olympiad
Science Olympiad Overview

- Science Olympiad is a nonprofit organization developed 28 years ago to improve the quality of science education in students.
- Interscholastic competitions for students in grades 6th -12th
- Provides recognition of outstanding achievement in science education by both students and teachers.
- Regional, state and national level competitions against teams from all 50 states.
Objectives

• To bring science to life, to show how science works, to emphasize problem solving aspects of science and the understanding of science concepts.

• To expose students to real-life challenges of working with a team, group planning and cooperation

• To make science education more exciting so students will enroll in science courses, programs, fairs, and clubs.

• To attract more students to careers in science, technology and science teaching.
RGV Regional Science Olympiad

Event Overview

- 6th Annual event hosted by Physical Science Department at South Texas College to encourage students to participate in math and science.

- Students from across the Rio Grande Valley are encouraged to participate.

- Two divisions in competition – opportunities for both high school and middle school children.

- Winning teams have opportunity to participate in state competition and potentially compete at national level. Last year, 2 valley teams competed at State on May 6-7!
RGV Regional Science Olympiad

2012 Event Logistics

• Saturday, February 25, 2012 from 8 a.m. to 4:00 p.m.

• Location: South Texas College’s Pecan Campus

• Will recruit 20 teams. More than 400 students.

• Teams recruited from previous years: Sharyland, Mission, Pharr, Mercedes, Donna, McAllen, Brownsville, San Antonio and Houston.
Faculty and Staff Volunteers from Physical Science Dept.

- Dr. E. Cortez
- Dr. J. Studer
- Mr. M. Knecht
- Dr. C. Castillo
- Dr. L. Avila
- Ms. L. Cantu
- Mr. D. Martinez
- Mr. Gassem
- Mr. M. Lopez
- Dr. Wahid
- Mrs. I. Garcia
- Dr. Mandal
- Mr. N. Punsalan
- Dr. R. Nandigam
- Mr. Alberto Alvarez
Volunteers from Math & Science Division

• Ms. Yinping Jiao
• Ms. M. Zamarron

Other Volunteers

• Mr. Edgar Camara (STC Alumni)
• Mr. Moses Castillo (Community)
• Over 90 students from STC
• Chemistry Club members
14 events for grades 6-8th

- Bottle Rocket
- Storm the Castle
- Anatomy
- Science Crime Bus.
- Rocks and Minerals
- Microbe Mission
- Optics
- Food Science
- Mousetrap Vehicle
- Write it Do it
- Experimental design
- Mission Possible
- Keep the Heat
- Towers
13 events for grades 9th-12th

- Helicopters
- Forensics
- Chemistry Lab
- Rocks and Minerals
- Exp. Design
- Optics
- Chem Clue

- Write it Do it
- Microbe Mission
- Robot Arm
- Gravity Vehicle
- Towers
- Anatomy & Phys
- Thermodynamics
Students add sand (weight) to see if their tower can withstand a certain amount of weight for the Towers Competition.
Students adjust their Mission Possible device before the competition.
Mr. Gassem adds water to a team’s Bottle Rocket rocket before “take off”.
Students getting ready to compete in the Chemical Lab competition.

Students competing in the Anatomy competition.
Students adjust their constructed vehicle so that it travels the specified distance for the Electric Vehicle Competition.

Students competing in the Mouse Trap Vehicle Competition.
Students competing in the Chemical Lab Competition.
Students perform a series of tests to solve the "crime" during the Forensics Science Competition.
Sumo Bots

Experimental Design
Chemistry Club members getting ready to sing Karaoke before the awards.

Audience eagerly awaiting the Awards- over 450 students
Division C Winners for 2011:

1st place- Med High (Mercedes) – advanced to state
2nd place- Med High (Mercedes)
3rd place- Westbury Christian (Houston)
4th place- Donna High School- advanced to state
Division B Winners for 2011:

1st place - Harmony Science (Beaumont)
2nd place - Westbury Christian (Team A)
2nd place - Westbury Christian (Team B)
3rd place - Oratory Academy (Pharr, TX)
4th place - Harmony Science Brownsville
Thank you for your time and the opportunity to talk about this exciting event.

For more information visit our website at:  
www.southtexascollege.edu/science_olympiad

or you can contact Dr. Ludivina Avila, Director for Regional Science Olympiad at STC  (956)872-3511.