A Model That Works

INCUBATOR SCIENTIST PROGRAM

“Nurturing tomorrow’s Scientist”

MISSION

The mission of the Incubator Scientists Program is to identify African American students expand knowledge and enhance opportunities for success in science, mathematics, engineering and technology.

HISTORY

The Incubator Scientists Program was conceived by Dr. Edward Haynie and piloted in the St. Louis Public School System in 1988, at William H. Beaumont High School, an inner city non-integrated school in St. Louis, Missouri. In 1990, funding from the National Science Foundation, the St. Louis Regional Science and Technology Career Access Center (RCAC) at the University of Missouri St. Louis financially supported the Incubator Scientists Program as one of its major components. The program was expanded to Sumner High School in 1992 and then later to International Studies High School at Soldan High School in 1993. The program begin it operation in 2003 to present at the Missouri Baptist University and funded by Monsanto Fund.

DESCRIPTION

The Incubator Scientists Program is a comprehensive, multi-faceted, pre-collegiate intervention science strategy. The program builds on the idea that high school students will show increased academic success in science-related subjects, if they are provided a structured curriculum in science that builds on investigation, inquiry, and discovery, and is supported by intensive supervision, instruction, and guidance. Key to the success of this strategy is an essential emphasis on a carefully used set of adult behaviors that interact with students.

The Incubator Scientists Program was primarily designed to nurture and motivate the inner-city youth while promoting student advancement toward accelerated coursework as they pursue careers in science, mathematics, and technology. It was also developed to : help students to select, plan, and carry out projects with the help of classroom teachers and volunteers mentors from colleges and universities, industries and businesses in the community; engage students in school district, state, and national competitions; provide intensive assistance to involved students in their college or university selections; assist students with financial plans in pursuit of a college education; and maintain an active involvement in the post-secondary academic lives of the program participants. All of these elements serve to enhance the participants' preparation for academic and career-related success in mathematics, science and technology

PHILOSOPHY

The program is based on the philosophy that every student can learn science, if given the opportunity. A guiding principle for increasing high school student's motivation for pursuing science careers is that of increased academics and hands-on experience. Individualized instruction and nurturing are emphasized throughout to accommodate students needs as he or she moves towards self-actualization.

This method empowerment allows students to use this opportunity and take responsibility for creating tangible results. The completion of science research papers and doing science fair projects represent concrete accomplishments and the realization of a goal. This kind of action sets the stage for self-advocacy – treating problems rationally, and using the investigative approach. Thus, experiencing success becomes a necessary precondition for sustaining student interest in doing science activities.

The Incubator Scientists Program is also guided by the belief that science instruction serves as a vehicle for the improvement of cognitive, affective and psychomotor learning.

The guiding belief for students is embodied in an African proverb "Care more than others think is wise, Risk more than others think is safe, Dream more than others think is practical and Expect more than others think is possible."

Program Motto: "If it is to be it is to be by me."

Logo: The bumblebee

Symbolic of the bumblebee the students of the Incubator Scientists Program adopted the colors of the bumblebee which are yellow and black.

Colors: Yellow and Black

Black represents power, knowledge and understanding history and culture.

Yellow represents excellence in achievement in science, mathematics, engineering and technology.

PROGRAM ACTIVITIES

COLLEGE PLANNING WORKSHOP

This workshop is designed to inform the students of the availability of scholarships financial assistance and how to prepare for the entrance examinations (ACT and SAT

INTRODUCTION TO SCIENCE RESEARCH

This component is an orientation seminar for selected students on how to conduct in-depth scientific research. Students in the ISP will do independent scientific research. They will have a mentor assigned that has expertise in their research area. They will prepare for local, state and national competition.

MENTORING COMPONENT

There will be an orientation seminar that will focus on encouraging mentors to be engaged in tutoring, coaching, advising, counseling, guiding, being role models and inspiring students to pursue college/university to major in SMET.

AMERICAN JUNIOR ACADEMY OF SCIENCE

The role of American Junior conference is to provide a method to engage students in a National Science Competition. That focuses on students presenting their science research projects. The American Junior Academy Science is the only national honor society exclusively for high school scientists

MEDICAL SCHOLARS PROGRAM

The ISP has been in partnership with Howard University in Washington, D.C. for the past ten years. This is a program that brings sophomores and juniors to Howard

University's' campus during the summer for one week experiences in medical science with all expenses paid to foster interest in careers in medical and other health related careers.

SCIENCE FAIR WORKSHOP FOR TEACHERS

This program will train and provide professional development to teachers in preparing students to conduct research-science projects. Services will be provided to elementary, middle, and high school teachers

Science Workshops and Seminars

The science workshops and seminars are designed to focus on (1) the relevance of science and the role it plays in everyday life, (2) how to develop science projects and (3) how to write a science project. They will be introduced to the available technology and the importance of its use