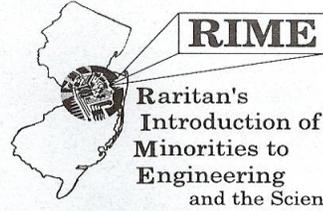


New Brunswick  
Public Schools



Franklin Township  
Public Schools

**R**aritan's



**I**ntroduction

OF



**M**inorities

TO



**E**ngineering

AND THE SCIENCES

Exxon Biomedical  
Sciences

 Bristol-Myers Squibb Company

## THE HISTORY

In 1978, A number of companies having a business presence in the vicinity of Central Jersey teamed up to partner with area schools to provide students with unique educational enrichment opportunities. These companies formed a 501 c(3) organization known as Raritan's Introduction of Minorities to Engineering (R.I.M.E.). The focus of R.I.M.E. in this in this corporate/school system partnership is simply to encourage students, who have cultural backgrounds which are under represented in technology, to pursue math and science related careers. DuPont's Photopolymer and Electronic Materials site in Parlin, NJ enlisted the help of other companies including Public Service Electric & Gas, Johnson and Johnson, IBM, Exxon Biomedical Sciences Inc., AC Delco, Colgate-Palmolive and Bristol Myers-Squibb to help motivate minority students to

pursue careers in Math, Science and Engineering. This partnership was the vision of the Assistant Superintendent of Curriculum and Instruction, New Brunswick Public Schools, Dr Penelope



*A student looks on nervously as his toothpick bridge is being load tested by a corporate member*

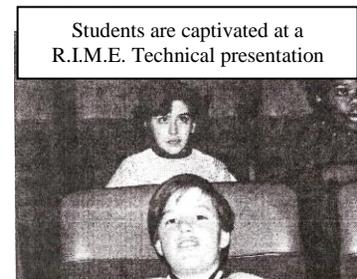
Latimer. Although the corporate make-up has changed throughout the years, the cross-corporate R.I.M.E. team has directed this pre-college effort towards feeding the technical pipeline with culturally diverse candidates. With more and more companies attempting to expand domestically and abroad, it is increasingly important for them to attract a diverse workforce. This new workforce must be capable of not only addressing the technical issues needed to be competitive but also possess people and cultural skills needed to succeed amidst cultural nuances encountered in global businesses. Past and present history shows us that African, Latin and Asian Americans have too often been left out of the mainstream of corporate America. This diversity void is the result of a host of social-economic factors that have been prevalent in day to day life. For corporate competitiveness to be maintained in the future, inclusion of culturally and technically diverse talent is a requirement.

The R.I.M.E. team of companies and the leadership staff in the New Brunswick School system was forward thinking and community focused in organizing R.I.M.E. The organization provides field trips, technical and motivational presentations to New Brunswick Public Schools. The

program has grown to include Franklin Township Public Schools and now impacts 11 schools and close to 200 elementary and high school students each year. The results of these activities have been amazing. The late Dr. Doris Bryant, a former New Brunswick Public Schools supervisor claimed "I cannot think of any supplemental academic program that benefits our students more than RIME" Although R.I.M.E. focuses on recruiting students with cultural backgrounds under-represented in technology, all students can and do participate.

## THE PROGRAM

The programs conducted by R.I.M.E. give students a chance to interface with technical professionals that they often can culturally identify with. This identification makes it easy to pass on career and academic information that they can take to heart. It can also spark in them a desire to achieve whatever they set their minds to.



Students are captivated at a R.I.M.E. Technical presentation

The students are given hands on exposure and

according to Jacques Schmidt, a career counselor at Franklin H.S..." R.I.M.E. offers us a unique opportunity to mix students of different backgrounds in an arena that is mutually beneficial...social and professional interaction, creative thinking and balancing of time between education, work and community is demonstrated by corporate professionals that our students can identify with"

R.I.M.E.'s resources are derived from corporate contributions and corporate volunteers. Over the last several years, high school student field trips have included The Ford Edison Assembly Plant, McGuire AFB Jet Maintenance Facility, Henderson Industries, Federal Express' Newark Regional Shipping Hub, Delaware State College, NJ Institute of Technologies, Princeton University, Stevens Institute of Technology, and Rutgers University. The middle schools have participated in workshops at the NJ State Aquarium in Camden, The Intrepid Air and Space Museum in New York, Liberty Science Center, The Franklin Institute, PSE&G's Corporate Training Center. Also, R.I.M.E. students have received a number of technical presentations including Civil Engineering, Entrepreneurship and Computer

Applications, Technology in the Justice System. Many high school students have attended the Exxon sponsored Health Science Symposiums in Tennessee, Georgia, California and Florida. R.I.M.E. has also sponsored three elementary level students to attend a special two-week science camp in Keystone, Colorado. Also, participating teachers and guidance counselors are sponsored to attend selected National Action Council for Minorities in Engineering (NACME) conferences that are held each year around the country. These field trips as well as the wide array of technical exposure to careers and role models over the years has proven to have a great impact on the success of our graduates. Many of our former R.I.M.E. students are now employed by various corporations across the country.

Among the highlights of the elementary program is a technical "game show" style competition hosted by PSE&G. The



students are exposed to the design of a multi-media computer application that

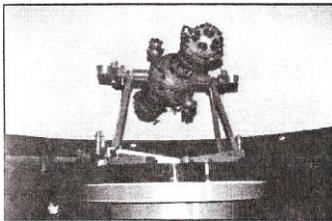
simulates a TV production. The teachers were also exposed to high-tech interactive method of engaging the students to learn and retain complex information. In the not to distant future, this technology application developed and demonstrated by PSE&G's Electrical Engineer, Mel Hinton and DuPont Chemical Engineer, Brian Hoffman can be brought into the classrooms as a fun learning exercise.

In addition, R.I.M.E. hosts a toothpick and school glue bridge building competition where students get to create a model bridge structure that is tested with R.I.M.E. student peers present. This competition continues to amaze onlookers with bridges that withstand vertical loads of over 100 pounds.

R.I.M.E. also includes the parents of student participants in the program in various activities. In selected years, a Parents' Night is hosted to indoctrinate the parents and new faculty to R.I.M.E.'s enrichment activities. Noel Brandon, a DuPont engineer and R.I.M.E. chairperson says "... the parents role to continually motivate their children is vital to academic success." At Parents' Night we bring in speakers to drive home the critical role of parents in the educational process. Dr. Marcus Buntin, an astronaut candidate from NASA, Dr.

Francine Essein a renowned scientist from Rutgers University and Dr. George Campbell, President of NACME can be included in the list of past keynote speakers. Also, parents are encouraged to volunteer as chaperons at RIME sponsored field trips in order to get a better sense of the RIME experience.

## THE GOAL



Many of the students participating in R.I.M.E. are deemed statistically at risk because

of their social-economic status. R.I.M.E., however, has helped in lowering the risk and generating positive results. Data accumulated through 1995 show that approximately 8 out of every 10 students that enter the program in 7<sup>th</sup> grade and continue through the 12<sup>th</sup> grade will enroll in a major *for R.I.M.E. students* college or university. By the time they reach grade 12, many of the R.I.M.E. students will rank in the top 10% of their high school class. After entering college 7 out of every 10 of these students will graduate. These statistics have outpaced national

averages and R.I.M.E. is quite proud of these consistent results.

Our students have primarily gone on to area universities such as Rutgers, Princeton and NJIT but many have also enrolled and graduated from a number of other prestigious out of state schools.

## THE SCHOLARSHIPS

R.I.M.E. awards scholarships of varying amounts ranging from \$250 to \$1500 to graduating seniors who pursue a technical major at a college of their choice. These scholarships are awarded in memorium to Loucious Norwood from DuPont and Dr. Doris Bryant from New Brunswick Public Schools who were the early organizational pillars and founding members of R.I.M.E.

## THE HOPE

In this rapidly changing world, R.I.M.E. continues to look for better ways of serving the needs of the community by partnering in the educational process. As the world grows into a smaller place because of advancements in electronic communications and people transportation and as rapid societal and political changes occur, it is imperative

that we not overlook the talent that lies within the children that our society has given very little chance to succeed. In order for the future to be a better place for us all, we all must have an opportunity to make it a better place!

## PURPOSE AND OBJECTIVES OF R.I.M.E.

The purpose of R.I.M.E. is to design, implement and support adjunct programs that will increase the number of minorities entering the engineering, math, science and related technical professions.

The objectives are:

1. To identify, prepare and motivate pre-college students to gain acceptance in, and to complete college engineering, math and science programs successfully.
2. To encourage and promote the development of coordinated parental, educational and industrial support for pre-college programs that will motivate and guide potential engineering, math and science students.

3. To identify and obtain appropriate community, educational and industrial resources to implement programs developed by R.I.M.E.

### **PROGRAM GUIDELINES**

1. The school system has responsibility to provide an appropriate meeting place counselors and teachers to assist in R.I.M.E. presentations.
2. Implement schedule for the fifth and sixth (each year that the R.I.M.E. Board elects to offer the R.I.M.E. program to these grade levels), seventh and eighth grade and high school activities and coordinate all necessary resources.
3. Selection of students:
  - A. Primary preference should be given to minority students on the basis of demonstrated achievement and interest.
  - B. Students must pass comprehensive exams in basic skills. Scores in reading and mathematics

must be comparable to the student's grade level. Exam results must be verified by the respective school system's R.I.M.E. Coordinator.

Students that do not meet the above requirements may be admitted based on the recommendation of a faculty member who is familiar with the student's potential ability.

### **ROLE OF R.I.M.E. BOARD MEMBERS CORPORATE SPONSORS**

1. Provide meaningful periodic presentations and/or field trips designed to interest and motivate students to pursue a technical career.
2. Provide and/or serve as role models to describe specific engineering, scientific and other technical disciplines.
3. Serve as role models to encourage citizenship, social responsibility and awareness, a "can-do" spirit, self-respect, self-esteem, leadership skill development and a good work ethic.
4. Provide financial support for R.I.M.E.

programs.

5. Cultivate the parents' interest in supporting the purpose and objectives of R.I.M.E.

### **RIME. CONTACT INFO**

Students and parents should contact the guidance office for additional information.

### **ROLE OF SCHOOL SYSTEM PERSONNEL**

1. Actively support the purpose and objectives of R.I.M.E.
  2. Provide a coordinator to act as liaison between the R.I.M.E. Board and the school system.
  3. Encourage student, parental and faculty involvement, monitor program activities, and assist in tailoring programs to complement school curricula.
  4. Select students who will participate in R.I.M.E., based on given selection criteria and monitor academic performance.
  5. Provide supervision during all R.I.M.E. presentations and field trips.
  6. Track students through college

graduation.

## **STUDENT RESPONSIBILITIES**

1. Regular attendance at R.I.M.E. presentations and functions are required.
2. Appropriate behavior, to include self-discipline, is mandatory at all R.I.M.E. sponsored activities. Appropriate attire is mandatory at all R.I.M.E. functions.
3. Cooperation and active participation are essential for continued membership in R.I.M.E. Participation in school science/academic fairs and special projects are mandatory to be eligible for field trips and scholarships. Enrolling in SAT preparation courses and taking of PSAT and SAT examinations are required for R.I.M.E. participation.
4. Remain in good academic standing (B average or better through eighth grade and B + average or better through grade twelve). High school schedule must include college preparatory science and mathematics courses in all four years of study. Advanced placement courses will be encouraged.

## **ROLE OF THE PARENTS**

1. Support of the student's efforts in R.I.M.E. sponsored activities is necessary.
2. Establish specific study hours at home for R.I.M.E. students.
3. Give permission to students to participate in the R.I.M.E. program and motivate students to excel academically.
4. Attend R.I.M.E. sponsored activities for parents and volunteer to chaperon as necessary.



*A teacher experiences a bucket truck ride at PSE&G's training center in Edison, NJ*