BRINGING YOUNG MINORITY WOMEN TO THE THRESHOLD OF SCIENCE

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The participants in this project are 24 minority female students from the 9th and 10th grades and 6 high school science teachers selected from the public and independents schools in the greater Washington, DC area. The project is based upon two ideas about students and teachers. Female students with potential ability in the sciences can be motivated to prepare for the fields of computer science, engineering or other sciences by using computer-based hypermedia technology in cooperative teams to develop a computer-assisted instruction program in a science discipline and by exposure to role models in the field. High school science teachers can become more sensitive to motivating young women to prepare for the fields of computer science, engineering or other sciences by participating in a computer science project that encourages the teachers to be facilitators, mentors and researchers with a group of young women.

The objectives for the student participants are 1) to bring young minority women to a university setting to raise their sights toward higher education and to learn about the opportunities available for them, 2) to upgrade the skills and confidence level o young minority women to use computers as a professional tool, 3) to allow young minority women to interact with female scientists and university professors as role models for potential future careers in science and engineering, and 4) to develop a peer network of young minority women from their local area who have similar interests in studying math, science and engineering.

The objectives for the teacher participants are 1) to upgrade the computer skills of the science teachers so that they can use computers as a tool to enhance their roles as teachers, 2) to provide the opportunity to develop a mentor/facilitator relationship with students with potential in math and science, and 3) to provide the opportunity to establish a collegial relationship with university faculty.

The three major components of the project are (1) six Saturday Seminars held once a month in the spring and fall which include acquisition of computer skills and a presentation by a science speaker; (2) use of computer labs each Saturday, and (3) a 10-day residential program in the summer to form working

teams to use HyperCard to develop computer-assisted instruction programs in science. During 1990 six teams were formed consisting of four 9th and 10th grade students and one science teacher. During 1991 another six teams will be formed, and one student participant from the previous will be added to each new team as a student leader/mentor to the new students.

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