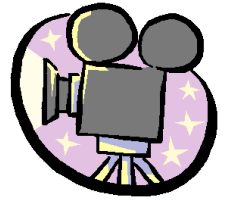




SCIENCE IN THE CINEMA



A Model for Using Film and Videoconferencing

Science in the Cinema in its original form is a free film and lecture series intended for a broad range of individuals who enjoy the cinema and have an interest in science and medicine. Selected films touch on a variety of medical and scientific topics. Following each film, a New Jersey Science Superstar* discusses the science depicted in the film and takes questions from the audience. These discussions also include the ethical implications raised by the film. Science in the Cinema programs, in this form, was only available to live audiences.

Through the collaborative efforts of NJEDge.net and the Internet 2 community, the NJ Association of Biomedical Research, the Verizon Access NJ Portal, and Passaic Valley Regional High School, the Science in the Cinema program has become a model videoconferencing program that allows students to interact directly with scientists and researchers in their respective fields of expertise. These projects also challenge the students by engaging them in discussions on the ethical and moral issues that the advancement of science and technology places on the world community. Recent projects have included research experts in the fields of medicine, genetics, anthropology, cellular biology, and toxicology.

In the first Science in the Cinema Videoconferencing project students in the Anatomy and Physiology classes at Passaic Valley H. S. and Sparta H. S. used the movie *Lorenzo's Oil* as a catalyst for research and discussion on the treatment of diseases and the ethics in human experiments and gene therapy. Dr. Tischfield, a professor in the Department of Genetics at Rutgers who is conducting research in cellular biology, was the guest expert brought in via videoconferencing to talk with the students from both schools.

Another Science in the Cinema program at Passaic Valley was the Human Genome Project. In that project, students viewed *Jurassic Park* and Nova's *The Real Jurassic Park* to obtain background information for research and discussion. Later in the project the students videoconferenced with Dr. Patrick Bender and Dr. Joseph Lorenz, from the Coriell Institute of Medical Research at Robert Wood Johnson School of Medicine in Camden, NJ. Dr. Lorenz is a molecular anthropologist and Dr. Bender is conducting research in cloning. The students gained valuable information and incite into the complex questions being raised by these advancements in science.

A Science in the Cinema project currently underway this year involves the movie *Erin Brockovich* and the environmental and health issues raised by the disposal of pollutants in the environment. In this project students will examine the effects of the chemicals that are discussed in the movie, what they are intended to be used for and how the waste is generated. They will also discuss corporate responsibility and the role that EPA./OSHA play in today's world to prevent these situations from occurring today. That project will be followed by a cross curricular project using the movie *Civil Action*. While students in our science classes investigate the scientific aspects of the movie, students in our American Law classes will approach the subject from a legal standpoint. Experts from the scientific and legal communities will videoconference with the students to provide further information and insight into these complex issues.

Another project planned for later in the year will use *Inherit the Wind* and the IMAX movie, *Volcanoes* to research and discuss the topic of evolution. We are also experimenting with expanding the collaboration aspects of these programs with applications such as, Blackboard, Moogoo, Click to Meet, and Marratech.

*New Jersey Science Superstars are generally NJ higher ed. faculty with an expertise in a related field.