



# Hands On

*"Active Engagement Leads to Understanding"*

## Science Centers

The movement to "Hands-On Science Centers" began less than forty years ago with the Exploratorium in San Francisco, California of the United States. Hands-On science centers are more than just places to teach non-scientists about science, they are places where scientific ideas are displayed, experienced and interacted with. In such places the communication of ideas is dynamic, where one is encouraged to touch exhibits, to interact with exhibits that aid in demonstrating various science concepts. Traditional hands-on science center exhibits tended to be dominated by physics related interactives, or deal with technology applications. An emerging trend in science centers is to add exhibtry in the natural sciences.

## Science Shows

Science shows developed early in the Hands-On science center movement. Originally they were put in place to provide visitors with a little "gee whiz" entertainment while sitting and relaxing for a portion of one's visit. Science shows soon evolved to become an important part of Hands-On science center's repertoire of attractions. Such performances provide an opportunity to show the public scientific phenomena that do not translate easily into exhibits. A current trend in science shows is to add audience participation game show themes, where the audience is involved in the presentation of educational and scientific information. Currently, CESLA is having "Conner Creative Productions, Inc. " design and script a science show dealing with the difficult subject of AIDS/HIV.

## Children's Science Centers

Typically, hands-on science centers have been themed for visitors eight years and up. The thinking has been that children younger than seven or eight years old could not understand or grasp science concepts. However, the current trend is to either incorporate preschool level activities into "traditional" hands-on science centers, or construct separate "Children's Science Centers / Museums. These centers use play as a basis for interacting with the exhibits. Through play, children learn the educational foundations of cause and effect, linear thinking, creativity, manipulation skills, etc. CESLA plans to build the first Children's Science Center in sub-Saharan Africa next to the UNIZUL Science Centre in KwaZulu-Natal, South Africa, utilizing toys as the basis for the exhibits, in association with educational programming. In this way, children intuitively discover that learning can be fun, thus setting the stage for life-long curiosity.

### **FLASH VIDEO**

The flash video on the web page is a series of photographs of hands-on exhibits from various science centers around the world.

### **HANDS-ON Education**

Where active engagement with interactive exhibits will lead to both a greater understanding of the ideas on which they are based and to a more positive attitude towards science and technology.