The New Biology

Biology was once a science of classification and description. Now biology is practiced in MIT's Devaney Laboratory. Here, at MIT, biology employs sophisticated methods of the physical sciences to answer the basic questions of nearly all biological problems. What is the method of genetic transfer common to all species? What is the structure of living matter? How do the environment and life alter the body's structure? How do the environment and life alter the body's structure? Do we have a common body pattern? Is there a universal DNA code?

Among other methods shown will be electron microscopy. This enables the biologist to see some of the large molecules that are too small to be seen with the naked eye. Dr. Hall, of MIT, has increased the resolution of the electron microscope to 5 to 10 atomic diameters. With this technique, some of the most complex molecules can be made.

Analysis of proteins and the nucleic acids that carry the instructions for cellular structure is also under study. Among other methods shown will be electrophoresis, the separation of chemical substances by electric currents, and the use of centrifuges to separate particles of different densities.

The metal fabrication section will demonstrate a deep-draking, separation, and physical metallurgy processes will be featured at this year's Open House. The City Planning exhibit shows what the city planners duties are. The philosophy of Course Seven is based on the theory that it is important to consider people and life in all its facets and to see them as the major factors in our urban environment. The nuclear engineering department will have the nuclear reactor on display and personnel will be available to answer questions. The reactor, which has been at critical strength since July 23, 1959, has run at various power levels including full power - one million watts--for various tests and research purposes. In the next few years, the reactor in New England, may be used in cancer research projects.

Physics Lab Demonstrations

The physics laboratory will demonstrate many phenomena of cosmic rays. Cosmic rays will be transformed into visible rays, and the various types of charged particles in the rays will be shown using a Geiger tube. Additionally, measurement of radioactivity from a source will be shown using a Geiger tube.

The tunnel in the center panel has made an impression on many visitors. Visitors will be invited to play shuffleboard with air-streamed hockey pucks. The intent here is not to overcome friction but to utilize its effects when useful.