The Physics Department has developed a set of kits for the purpose of performing the freshman and sophomore experiments at home. Built specifically with the hazards of home experimentation in mind, these kits are as accident-proof as is consistent with the precision desired of the experiment. The kits include specific instructions and a implicit goal of fostering a creative initiative in investigating aspects of theory not directly discussed. In some ways they resemble the home kits supplied by the Electrical Engineering Department.

These kits are part of a reorganization of the physics curriculum (biology has similar intentions) to include the relatively unstructured composition. They include everything the designer could think of as possible and necessary to be helpful in the construction of an experiment on the area involved, resulting in some seemingly bizarre assortment of elements.

For instance, one of the freshman kits is concerned with harmonic motion, to which end the included items such as wire, springs of various lengths, a record turntable, liquids of varying viscosity, and a wooden frame for suspending the necessary combination. The kit for the sophomore lab on lenses, light, and imaging includes a variety of lenses, microscopes, slides, razor blades, and tape. The lenses are encased in plastic to prevent breaking if dropped, and special holders are provided for the slides. One possible application of the kits is to allow students to participate in Science Olympiad, which places increasingly greater stress on the student's ability to learn and capacity for individual achievement. At the same time the proponents of this philosophy of learning deemphasize the usefulness of prescriptive instruction in terms of formal instruction, which places an emphasis on students working in the frame of MIT's pressured atmosphere. The idea has exceptional merit and appeal.