

## **[Nuclear Help Index](#)**

### **Menu Items**

[Choices](#)

### **General Procedures**

[The purpose of the program](#)

## Choices Menu

This menu can be used to start a new section of the program or various function (F) keys can be pressed to do the same thing. The Function key choices are displayed on the main menu.

Types of Radiation F2

Half Life F3

Nuclear Reactions F4

Nuclear Fission F5

Nuclear Fusion F6

To exit the program select exit or press Alt-x.

### **Purpose of the Program**

Nuclear provides the introductory chemistry and physics student with a tutorial concerning nuclear chemistry. The topics discussed during the program include types of nuclear decay, the concept of half-life, writing and balancing nuclear reactions, the basics of nuclear fission and nuclear fusion. Graphics are used during the program along with a number of animated sequences designed to give the student a better understanding of the concepts being discussed.

## Types of Radiation

When the user press the F2 key this portion of the program will begin. A diagram illustrating the decay of a radioactive substance will be presented along with a detection screen. This sequences should provide an introduction to the concept of decay and the common particles produced during decay. To start an animated sequence press the F10 key. To repeat the same sequence press the F11 key. When completed with a sequence press the Home key. Follow the prompts.

## Half Life

Pressing the F3 key will start this sequence. Half life is discussed along with an animated sequence which shows the meaning of the concept. To start an animated sequence press the F10 key. To repeat the same sequence press the F11 key. When completed with a sequence press the Home key. Follow the prompts.

## Nuclear Reactions

When the F4 key is pressed a tutorial on the meaning and balancing of nuclear reactions will be presented. To balance the reactions use the space bar to increase the coefficient, use the number key to enter the atomic number and use the shift + number key for the mass number. To correct the atomic number press the ";" key, and to correct the mass number press the ":" key. A reaction may be skipped by selecting Skip Reaction from the menu.

## **Nuclear Fission**

When the F5 key is pressed a tutorial on nuclear fission will be presented. Some animated sequences will be seen which help in the understanding of what happens during nuclear fission. To start an animated sequence press the F10 key. To repeat the same sequence press the F11 key. When completed with a sequence press the Home key. Follow the prompts.

## Nuclear Fusion

When the F6 key is depressed a tutorial on nuclear fusion will be presented. Some animated sequences will be included. the fusion sequence is controlled by raising the temperature which can be done by pressing the space bar. To start an animated sequence press the F10 key. To repeat the same sequence press the F11 key. When completed with a sequence press the Home key. Follow the prompts..



**Exit**

To quit the program select this menu item or press Alt-x.

