

Instructions for the Genetic Molecules program

The genetic molecules program divides the study of **DNA**, **RNA** and **proteins** into seven stages:

- (1) Identify DNA bases
- (2) Make DNA nucleotides
- (3) Single strand of DNA
- (4) DNA synthesis
- (5) Make RNA nucleotides
- (6) Transcription
- (7) Translation

The program is run from an **Instruction window**, which is present at all times. When the program starts up, you will see that this window contains a **Next** button. To go through the program in the sequence shown above, all you need to do is to click on the **Next** button whenever it appears.

The program also has the flexibility to jump around to different stages. Use the **GoTo** menu to select any stage at any time.

? and Info buttons

At many stages in the program, you will see in the Instruction window either a button labelled ? or one labelled **Info**. The ? buttons usually come at the beginning of a stage, and may be useful in describing what you need to do to complete the stage. See below for the **Info** buttons.

Information menu:

The basic information on Genetic Molecules is contained within the program. If you can run the program, you should understand the principles. However there is a lot of extra information which is contained in screens which are accessed from the **Information** menu. As well as being able to access these screens from the menu, you can also access most of them from the program, by clicking on the **Info** button mentioned above. In this way you see the extra information when it is most relevant to the stage you have just run.

A check mark will appear against the menu item when you have accessed the screen. In this way you can see which screens you have accessed and which ones you have yet to look at.

Overview:

The program contains one special screen, Overview screen, which summarises the way in which DNA, RNA and protein are connected. You are asked to set this screen up for yourself. You may be able to do this when you start the program. Alternatively you may need to go through some or all of the program to be able to complete this screen. You should be certain that you can do this before quitting the program.

Colours:

Each base in the program has a characteristic colour. You can change these colours from the **Colours** item in the **File** menu if you wish. You will only see the new colours when you go to a new stage.