

## Instructions for the PCR program

This program requires you to manipulate the constituents of DNA synthesis to produce a DNA molecule. You should have some knowledge about the structure and synthesis of DNA before attempting the program.

The program is designed to be self-explanatory, so that you should not need instructions on how to proceed. Just remember that you need to set temperatures for the various parts of the reaction, otherwise the manipulations of molecules will not work.

The program is designed to give you increasing amounts of assistance through automation as the cycles proceed.

Cycles	1 - 3	You need to do everything by hand
"	4 - 6	You set the temperatures, the computer manipulates the molecules
"	7 - 10	The computer manages the whole process automatically
"	11 - 30	The synthesis is not shown, just the change in product numbers

When you have completed the simulation, a new menu appears, with a set of 15 questions which you should try to do. These questions require some understanding of DNA synthesis and PCR beyond that needed to run the program.

You can also run a gel at the end to see what products are visible. The gel can in fact be run at any stage during the reaction.

When you have completed the synthesis, it is worth repeating the important first few cycles of the reaction. The program will let you do this with any degree of automation you want.