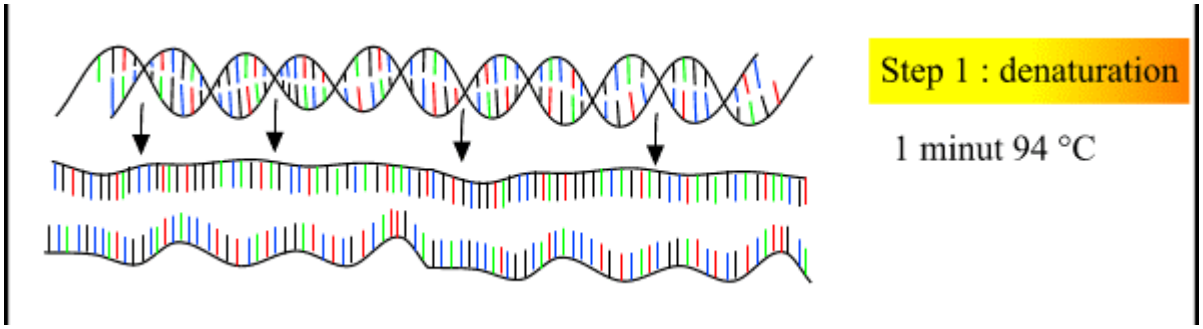
PCR *denaturation* **temperature 94C**

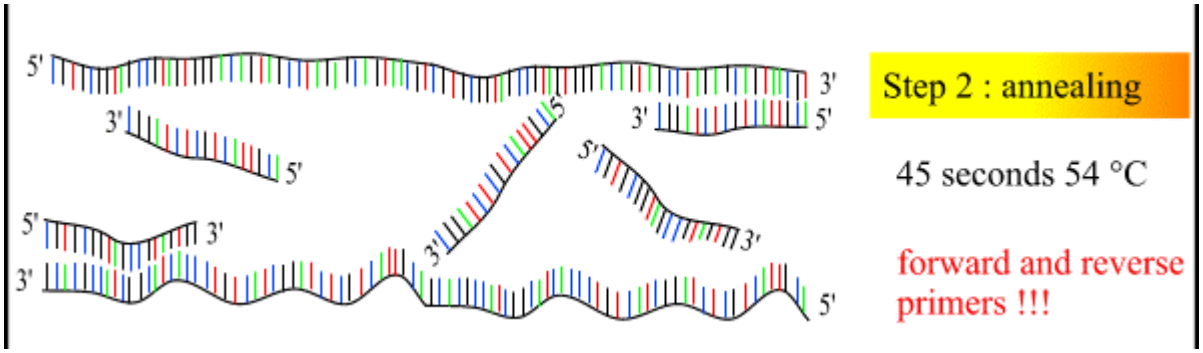
The hydrogen bonds are broken in the double stranded DNA, creating single strands of DNA that are susceptible to copying.



http://users.ugent.be/~avierstr/principles/pcr.html

PCR *annealing* **temperature 54C**

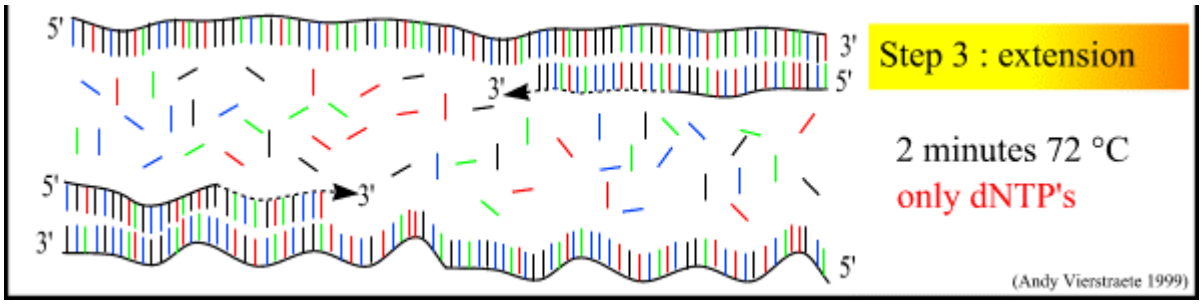
The primers (custom-made, short DNA strands, specifically designed to bond to sites at the beginning and end of the segment to be copied) bind to the DNA.



http://users.ugent.be/~avierstr/principles/pcr.html

PCR *extension* temperature 72C

The Taq polymerase enzyme adds DNA nucleotides from 5' to 3', reading the template from 3' to 5' side, making two double stranded molecules from each one double stranded DNA molecule that was denatured.



http://users.ugent.be/~avierstr/principles/pcr.html