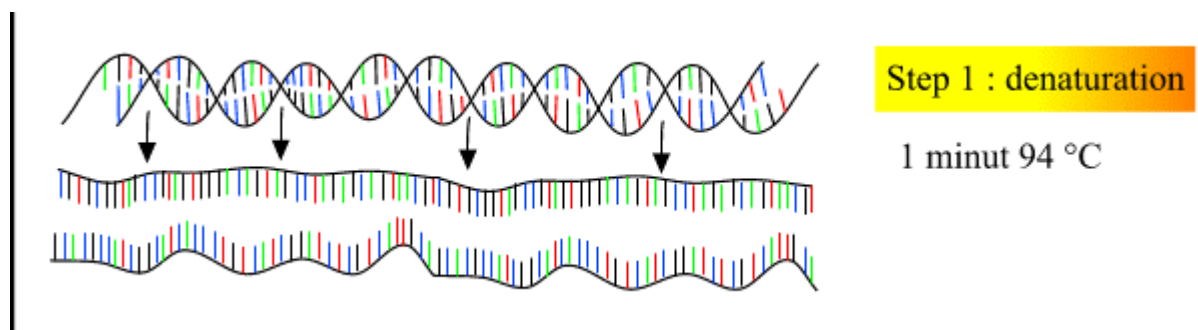


PCR *denaturation*

temperature 94C

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

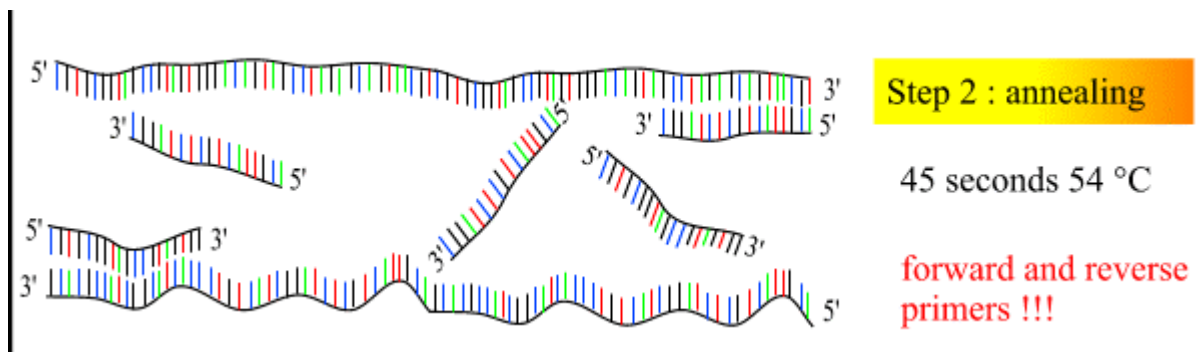


<http://users.ugent.be/~avierstr/principles/pcr.html>

PCR *annealing*

temperature 54C

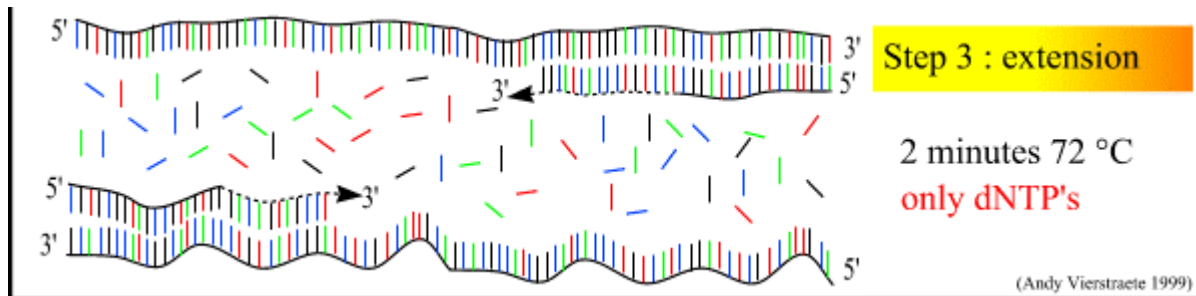
The primers (custom-made, short DNA strands, specifically designed to bond to sites at the beginning and end of the segment to be copied) bind to the DNA.



<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>