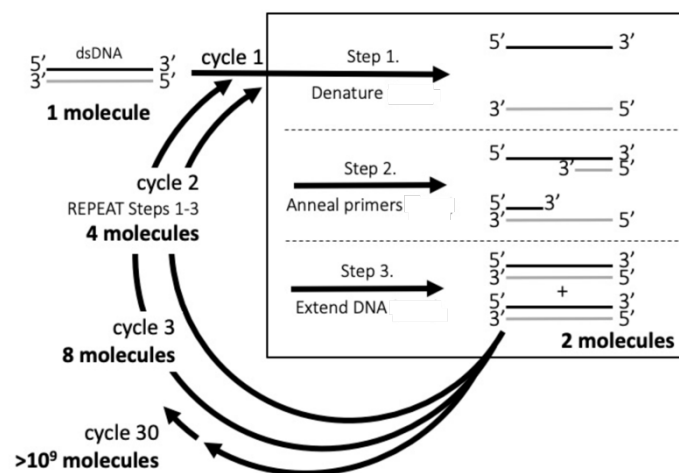


Polymerase chain reaction – Reference Summary

The PCR Process

The following diagram depicts the process of **PCR (Polymerase Chain Reaction)**, which has 4 main steps:

1. denaturation
2. primer annealing
3. extension (synthesis of new DNA by the DNA polymerase, Taq Polymerase)
4. cycling



It is important to note that this reaction, while based off of the principle of DNA replication, happens in a test tube (not a cell!) with the **goal of amplifying a DNA sequence**.

Notes about PCR Primers

The primers used in this reaction are **DNA primers**, not RNA primers, because they are synthetically made and added to the test tube. The primers should anneal to **the outermost region of the sequence** that you would like to amplify. For each reaction, you should have **two types of primers**: one to extend along the top strand of the DNA sequence and one to extend along the bottom strand.