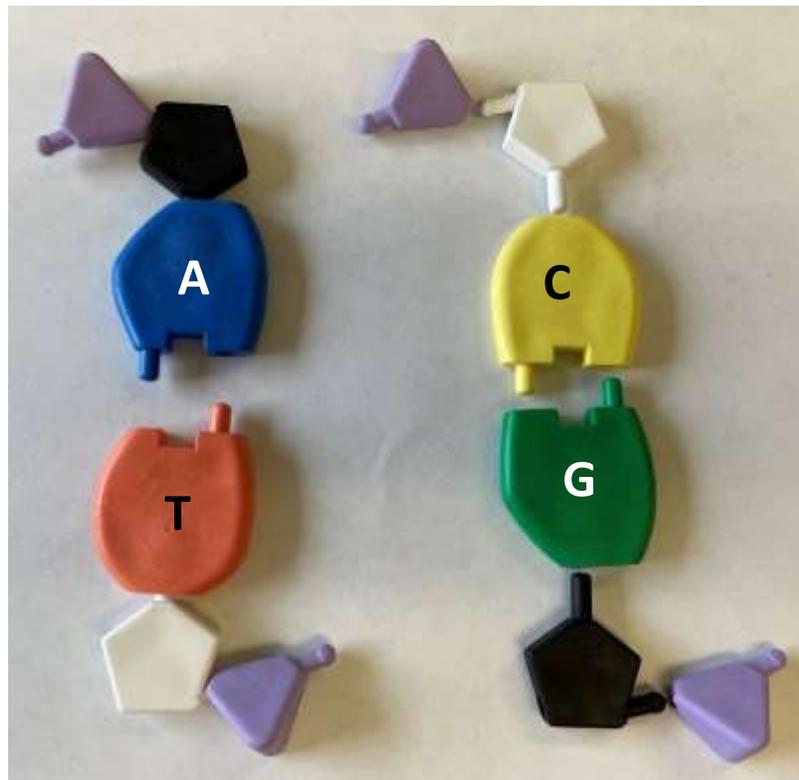


Deoxy Ribose (Sugar)



Base Pair (Complimentary Nucleotides)



5' -AAG -3'



5' -TAC -3'

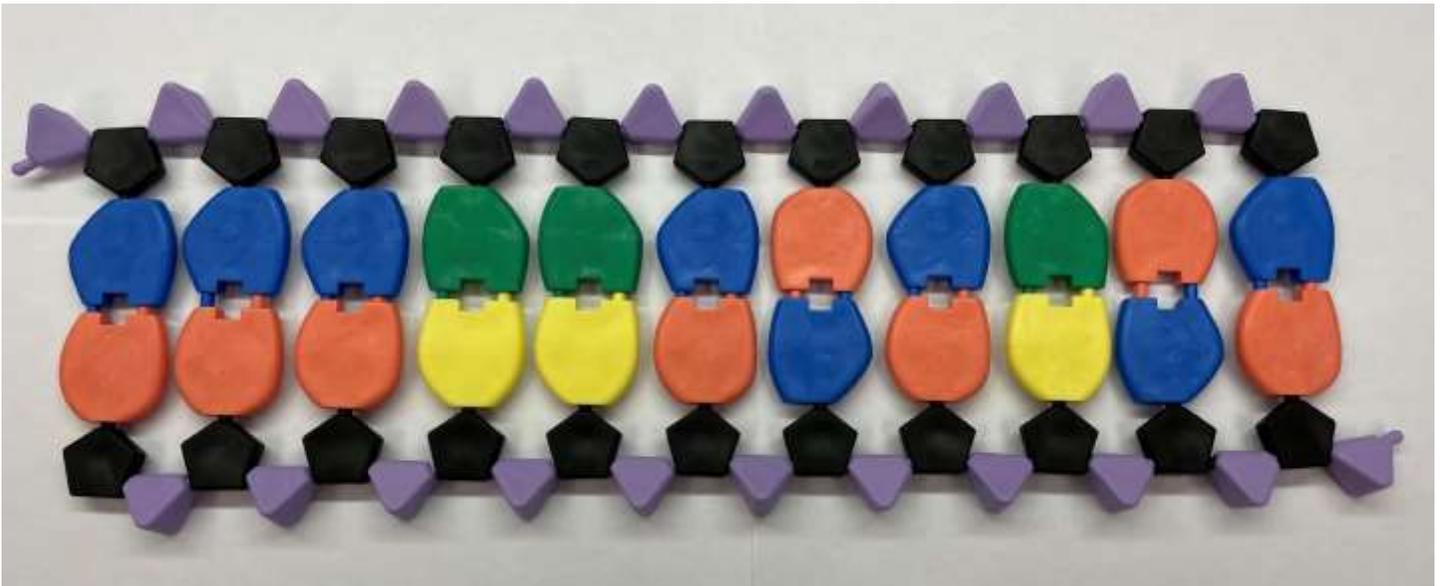


5' -AAC -3'



5' -GAT -3'

Polymerase Chain Reaction (PCR) based replication of a DNA (2-strand) Molecule



Original Template [10bp Product]



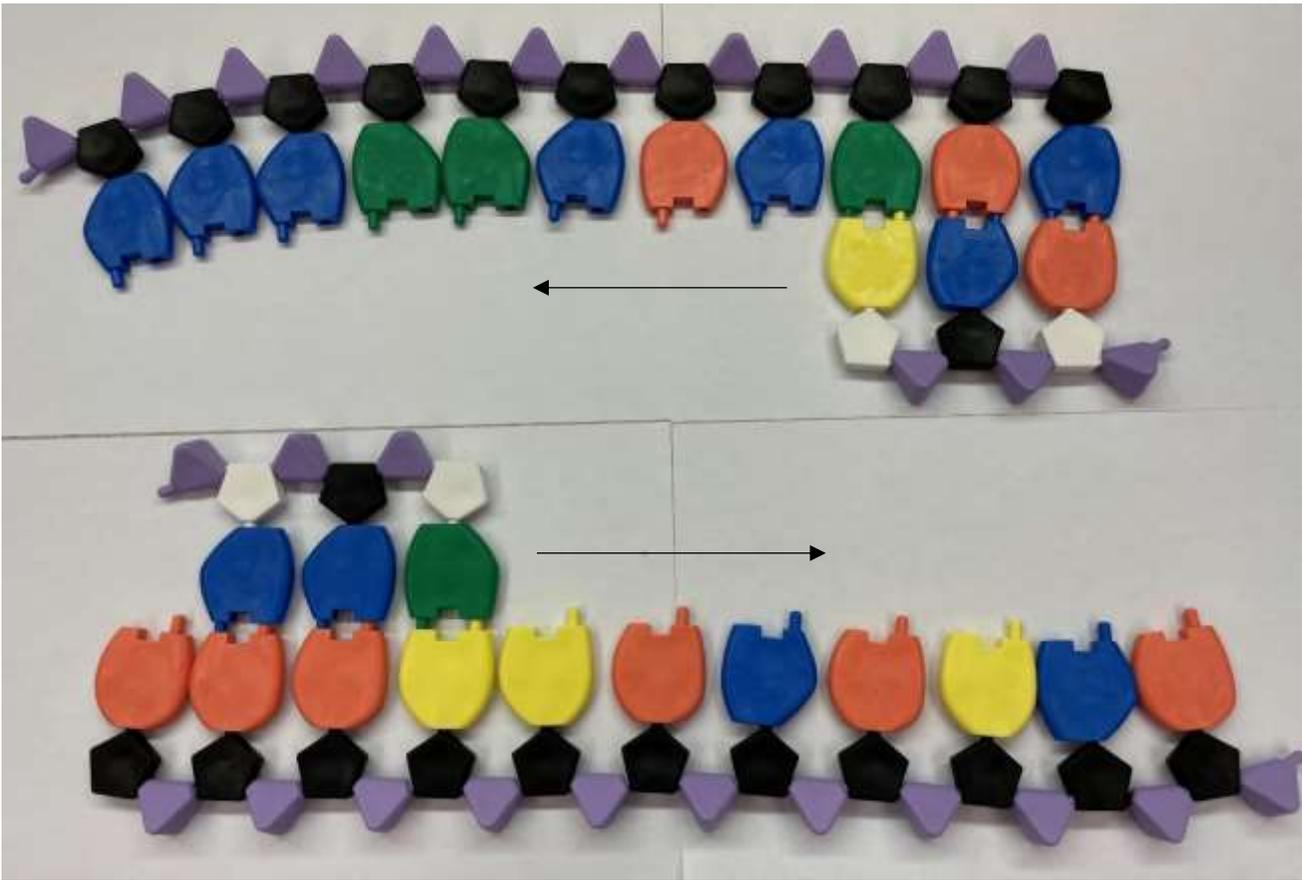
PCR Cycle 1: Step 1-Melting/Denaturation [10bp Product]



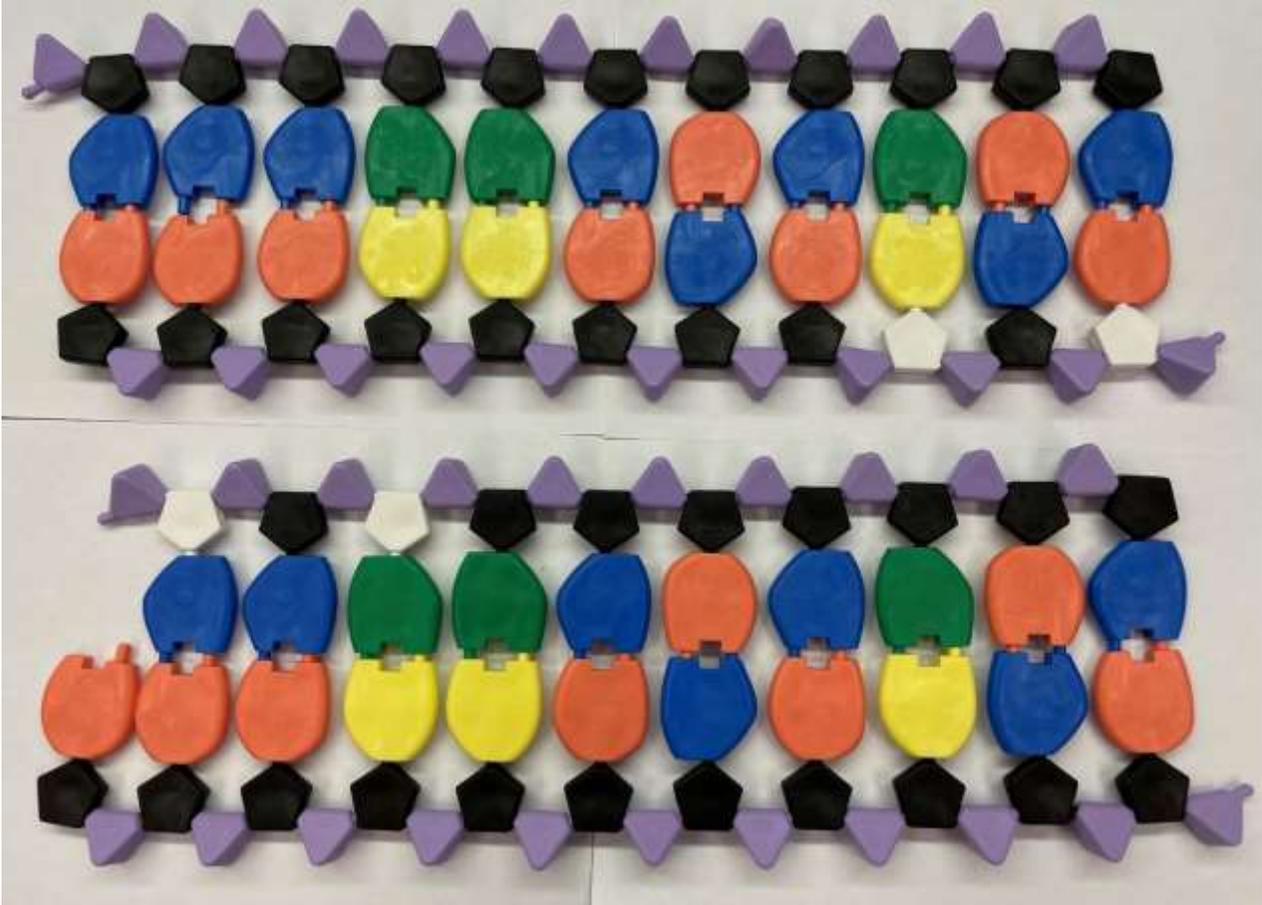
Original Template [6bp Product]



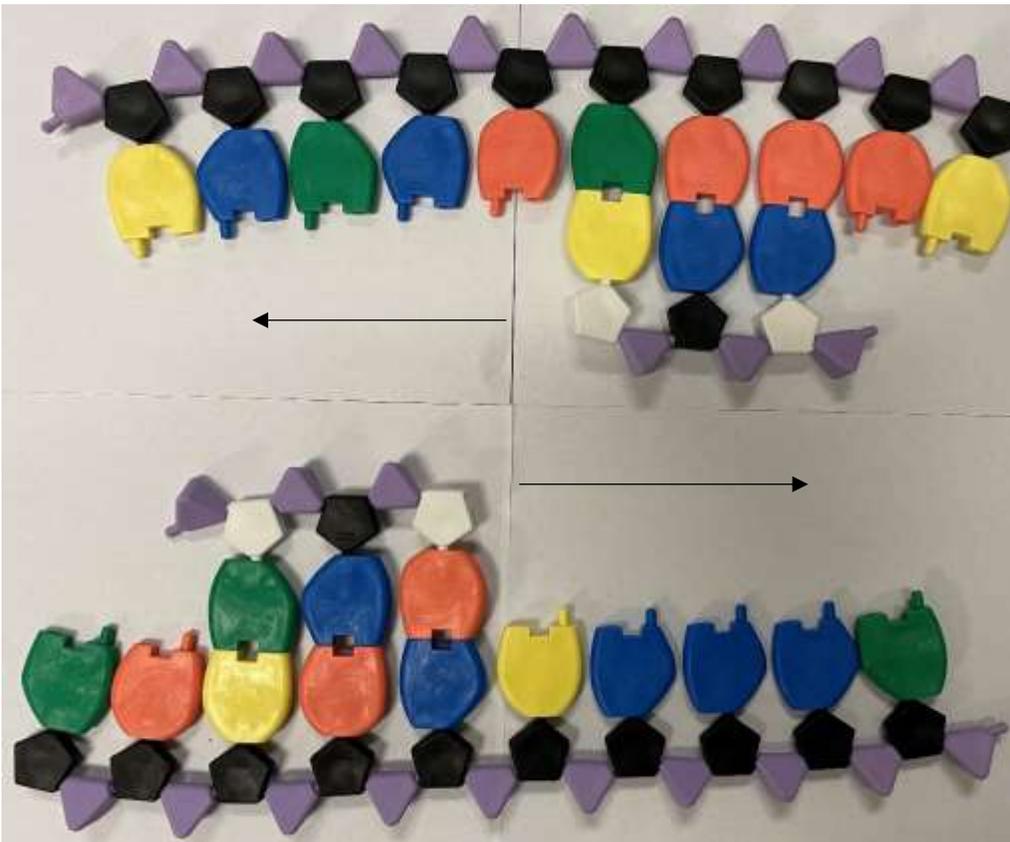
PCR Cycle 1: Step 1-Melting/Denaturation [6bp Product]



PCR Cycle 1: Step 2-Priming/Annealing [10bp Product]



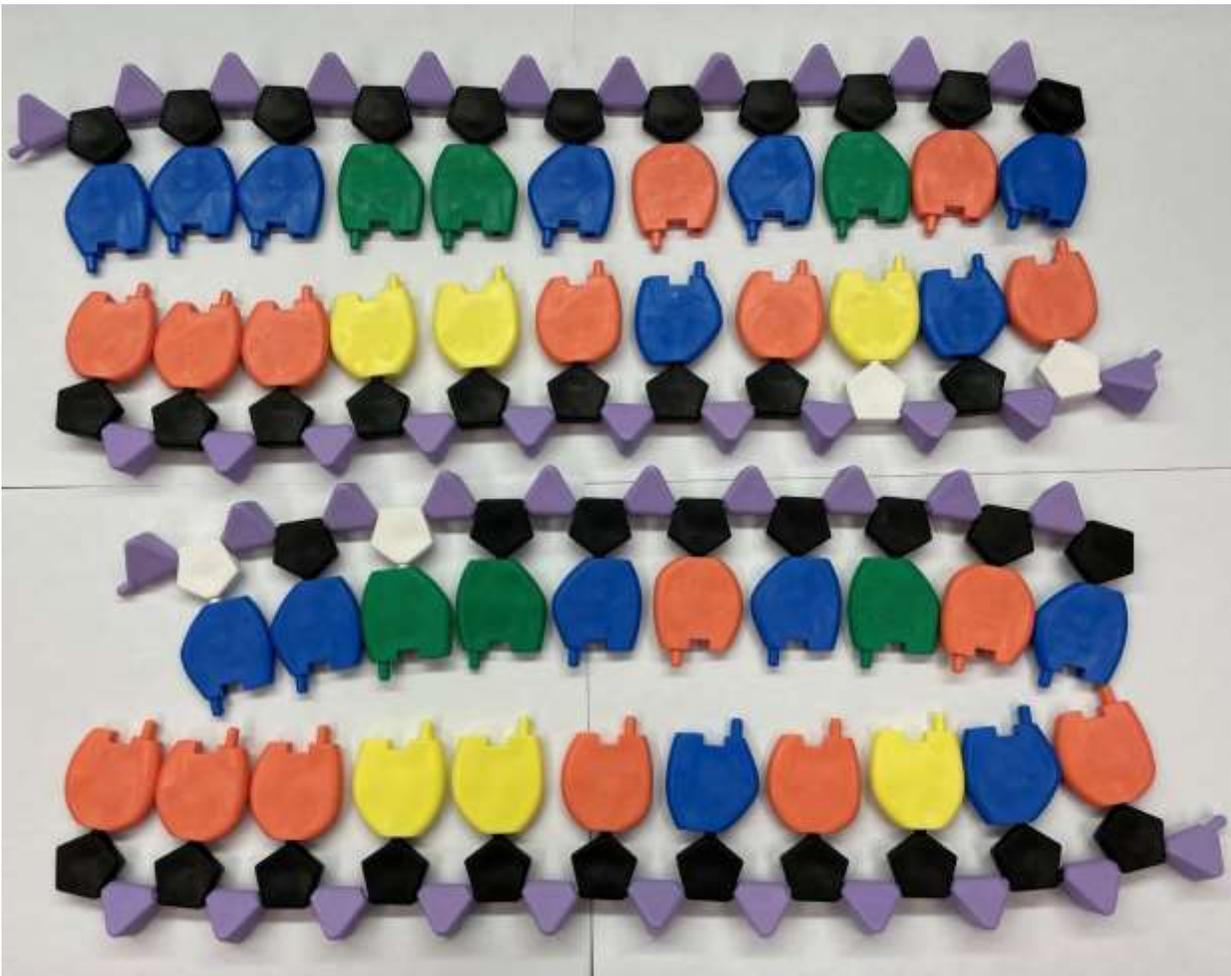
PCR Cycle1: Step 3-Polymerization/Extension. Completed- generating TWO molecules of DNA [10bp Product]



PCR Cycle 1: Step 2-Priming/Annealing [6bp Product]



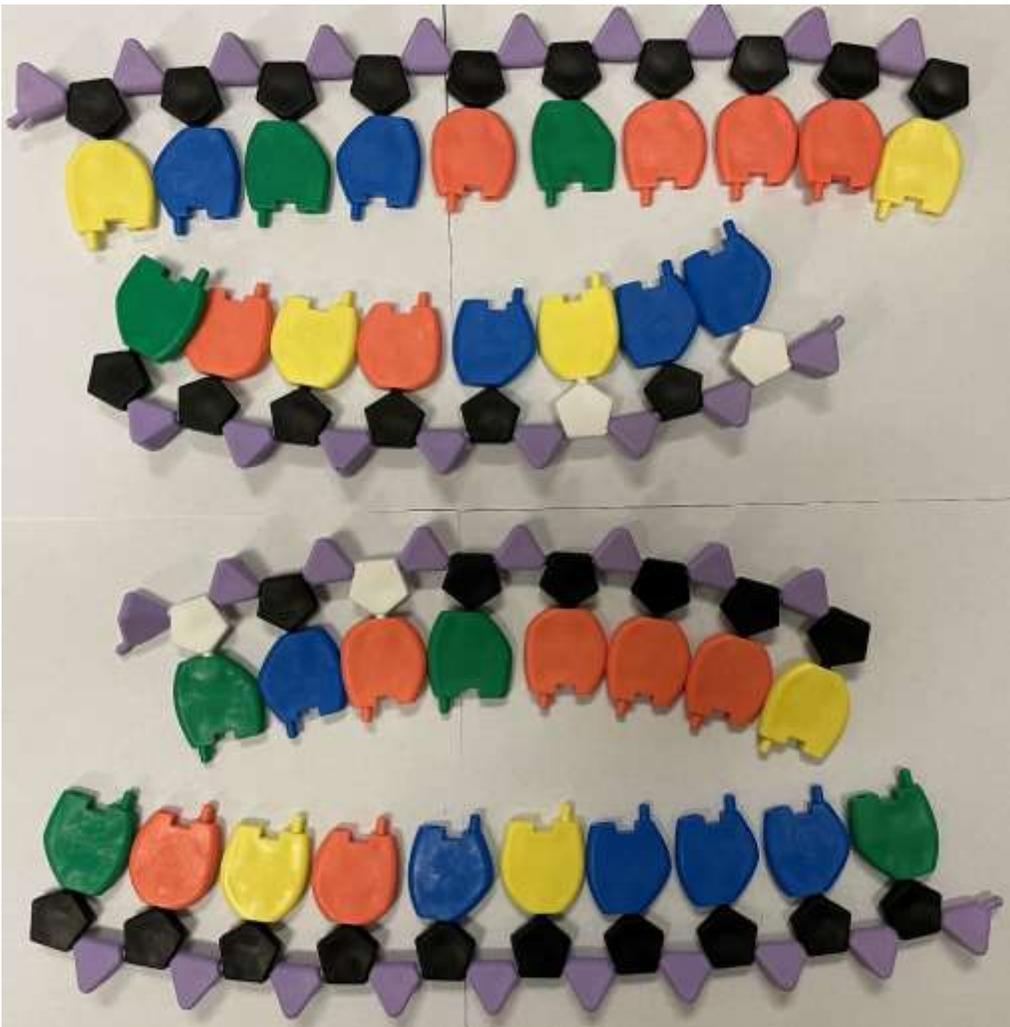
PCR Cycle1: Step 3-Polymerization/Extension
Completed-generating TWO molecules of DNA [6bp Product]



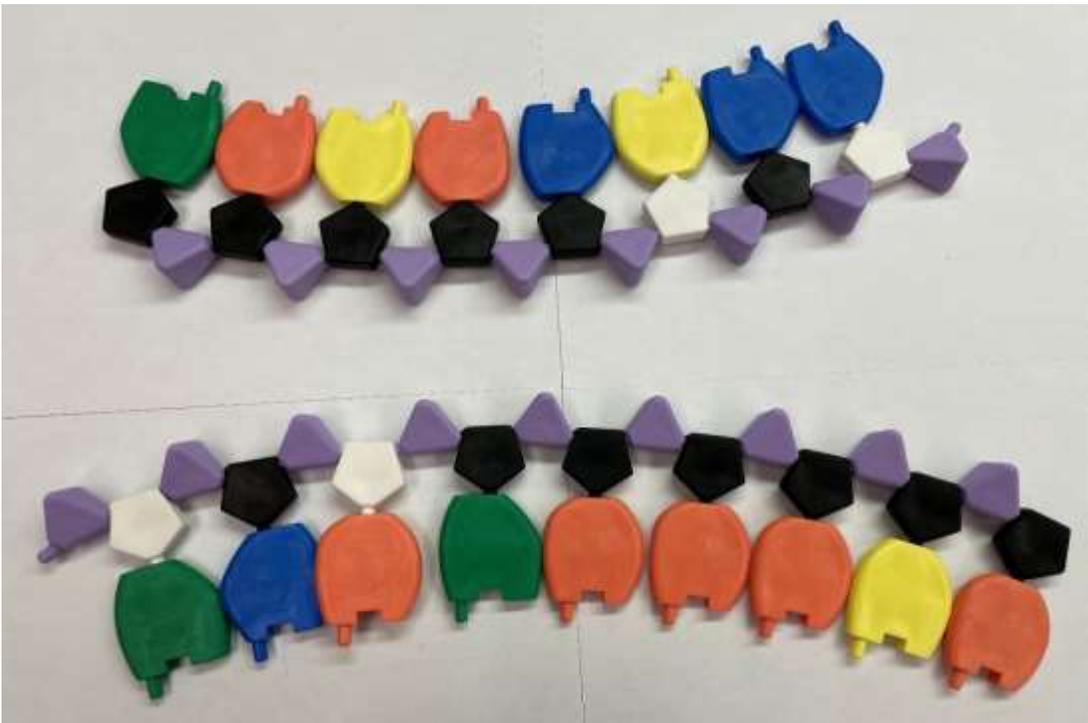
PCR Cycle 2: Step 1-Melting/Denaturation [10bp Product]



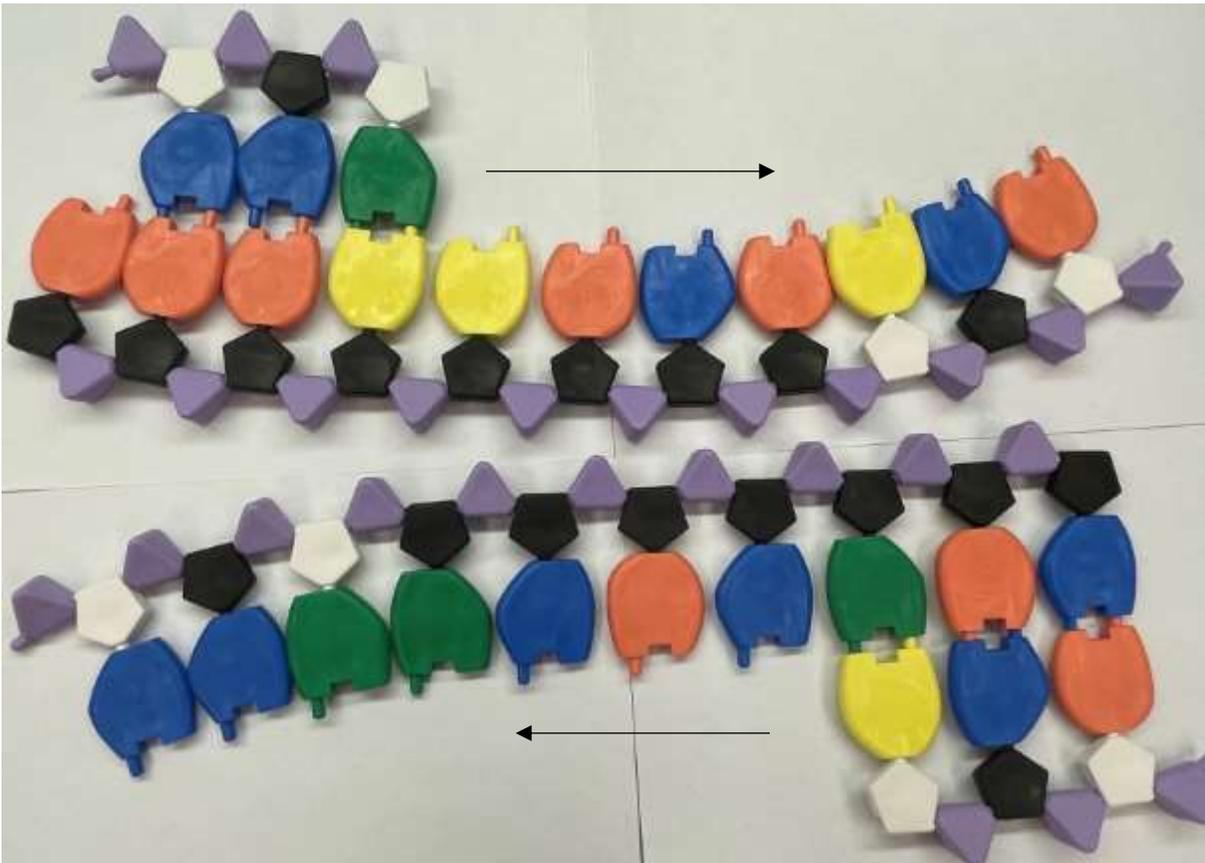
PCR Cycle 2: Selected Template Strands [10bp Product]



PCR Cycle 2: Step 1-Melting/Denaturation [6bp Product]



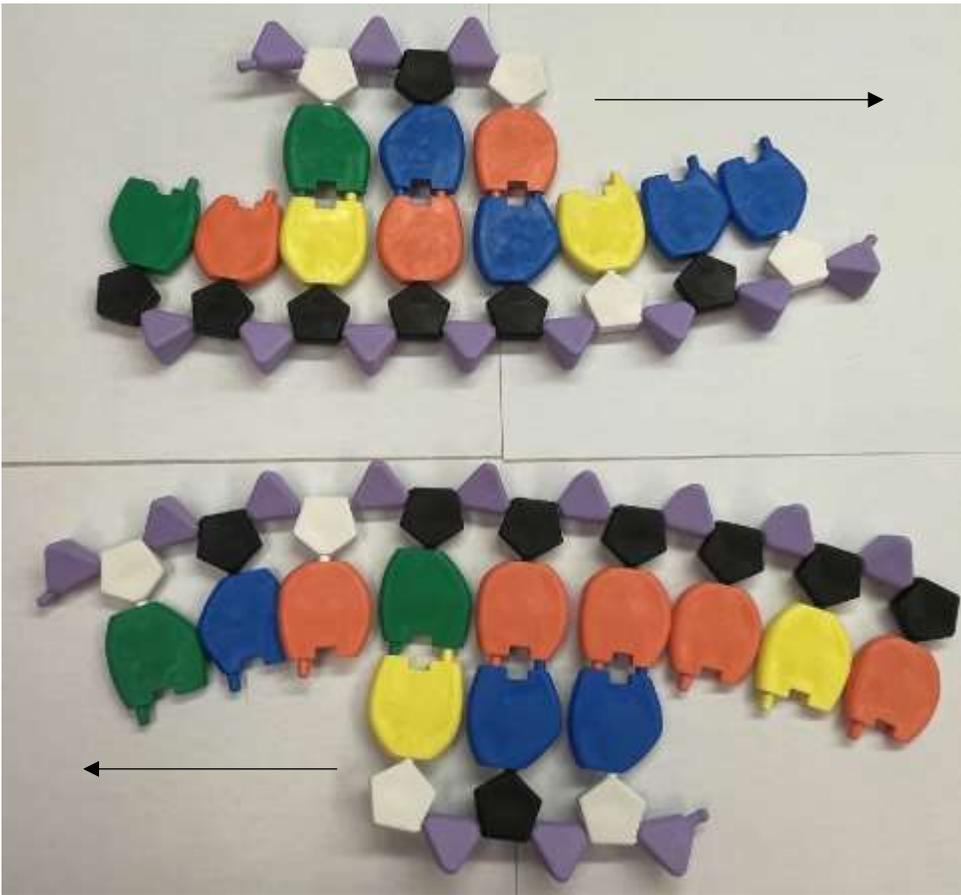
PCR Cycle 2: Selected Template Strands [6bp Product]



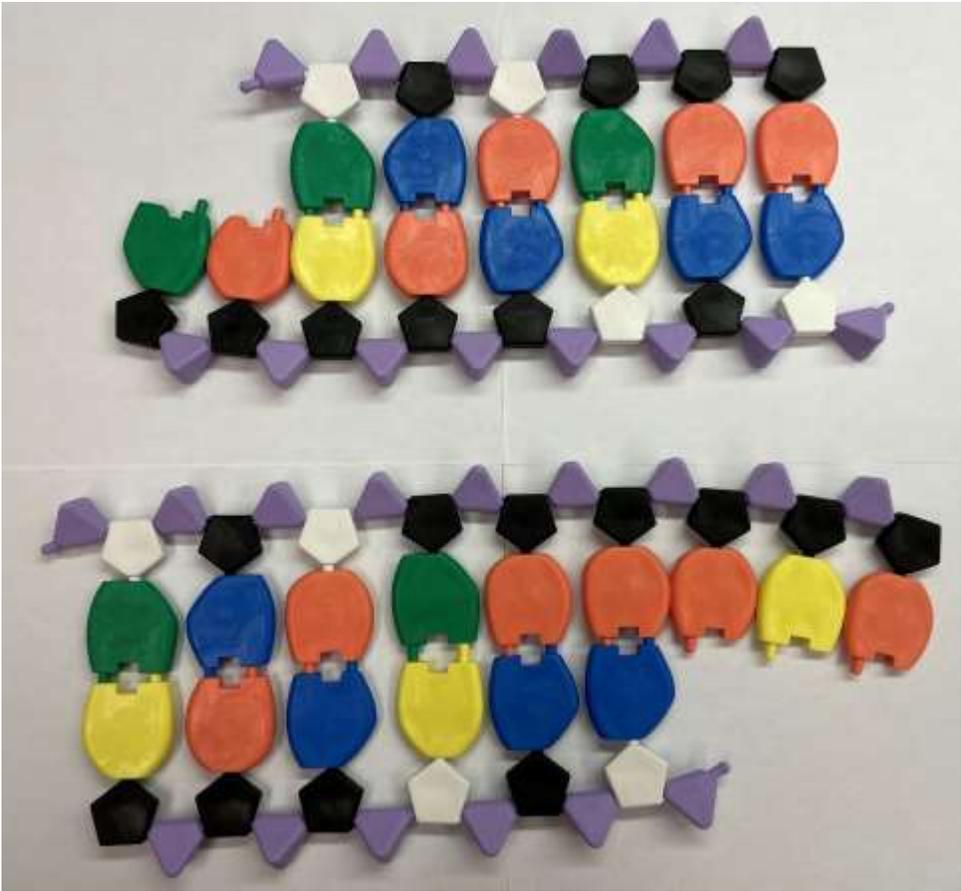
PCR Cycle 2: Step 2-Priming/Annealing [10bp Product]



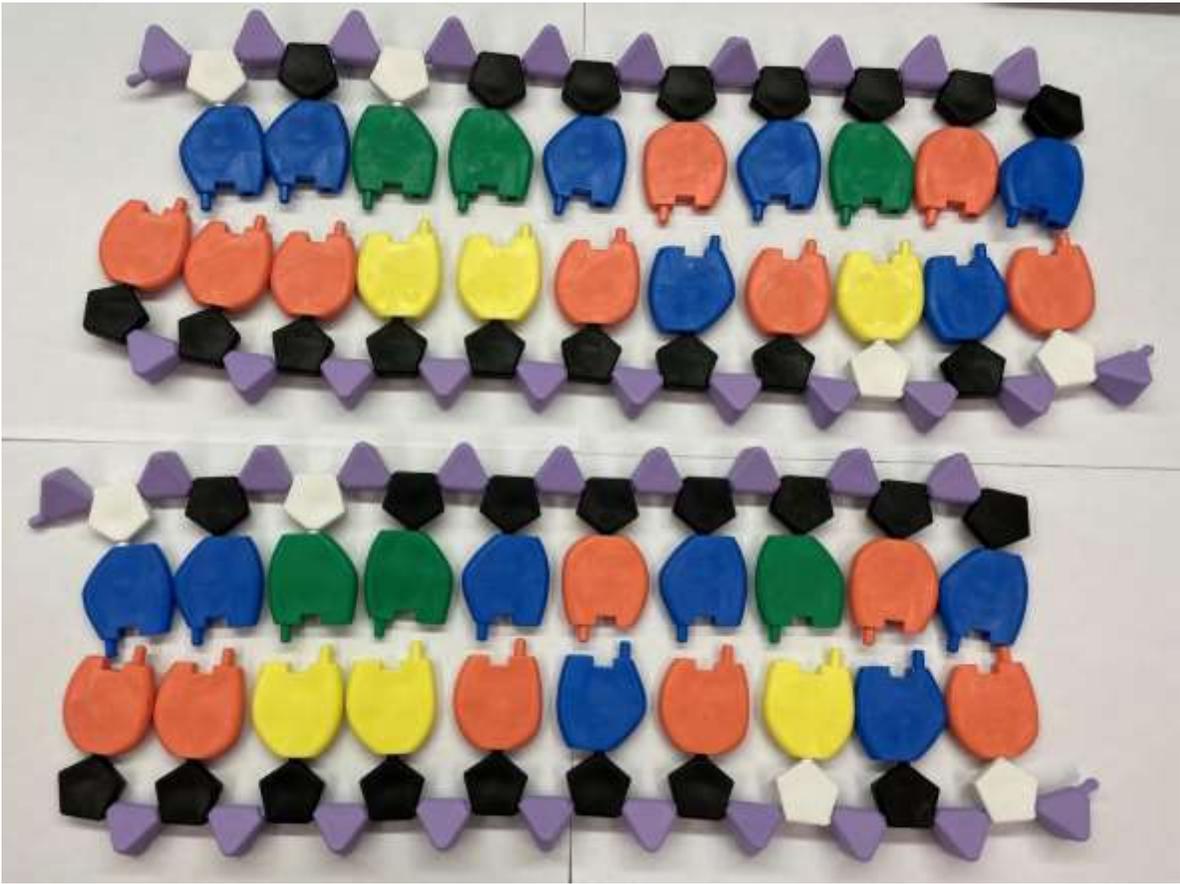
PCR Cycle 2: Step 3-Polymerization/Extension Completed [10bp Product]



PCR Cycle 2: Step 2-Priming/Annealing [6bp Product]



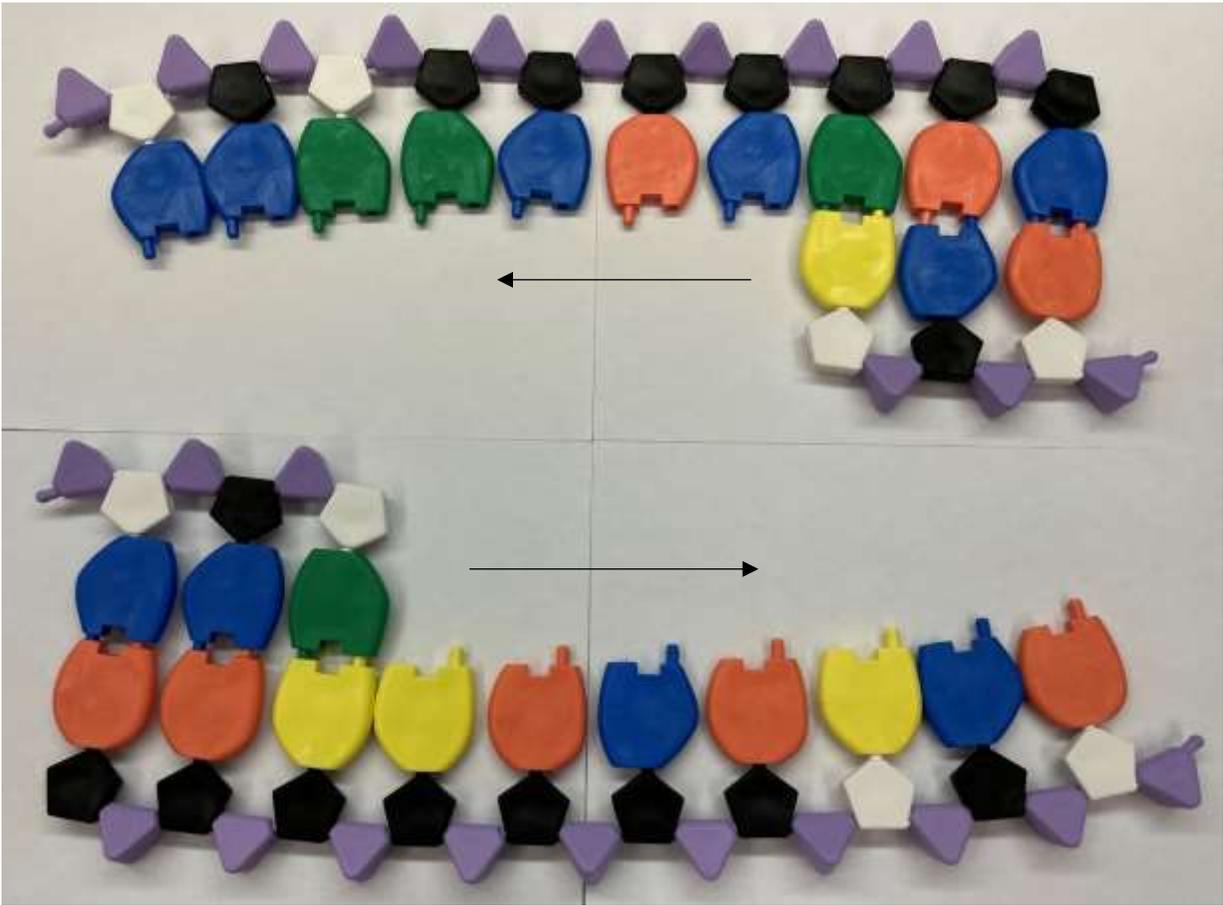
PCR Cycle2: Step 3-Polymerization/Extension Completed [6bp Product]



PCR Cycle 3: Step 1-Melting/Denaturation [10bp Product]



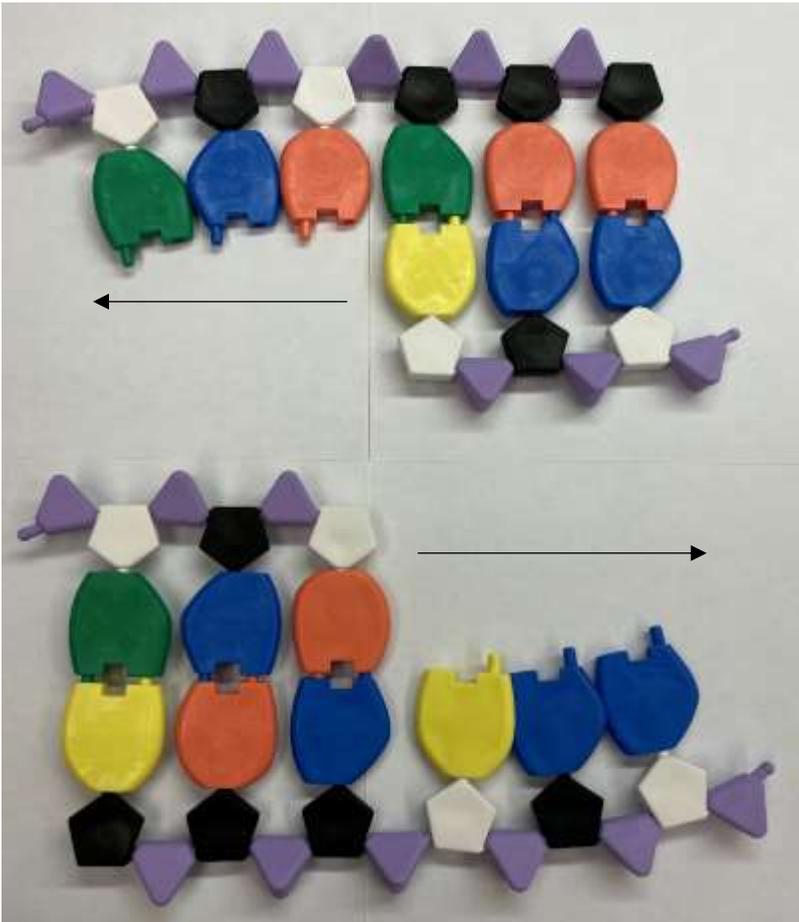
PCR Cycle 3: Selected Template Strands [10bp Product]



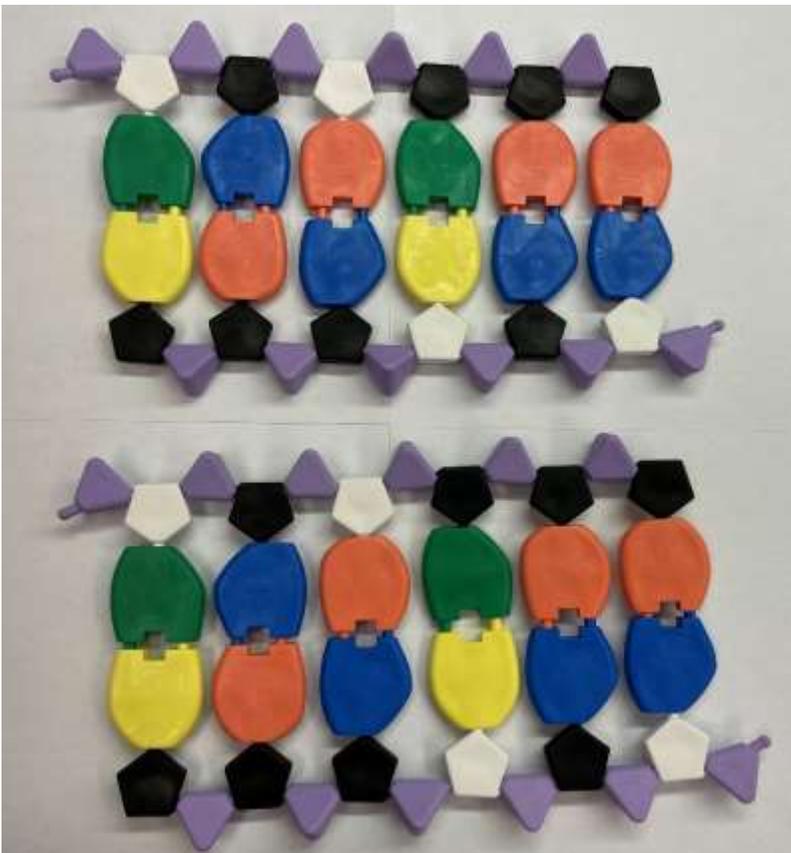
PCR Cycle 3: Step 2-Priming/Annealing [10bp Product]



PCR Cycle3: Step 3-Polymerization/Extension Completed (Final product- 10BP)



PCR Cycle 3: Step 2-Priming/Annealing [6bp Product]



PCR Cycle3: Step 3-Polymerization/Extension Completed (Final Product 6BP)