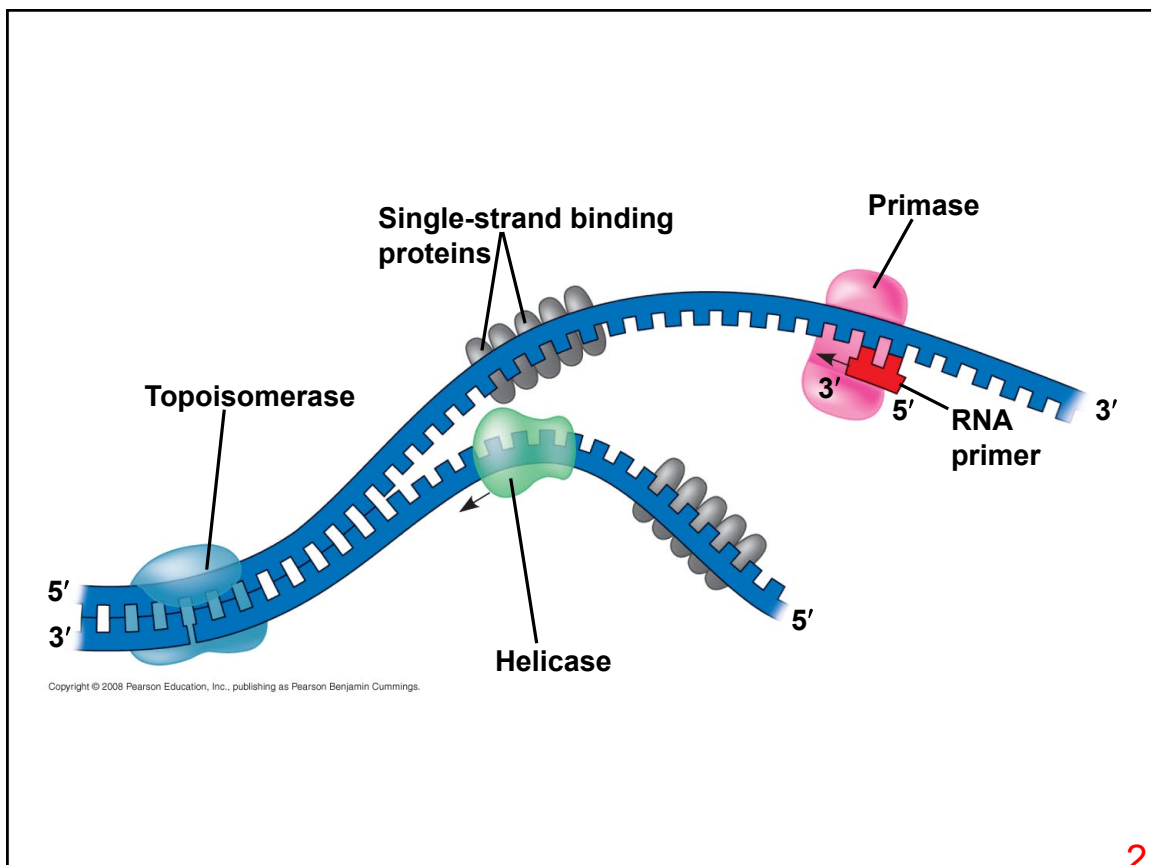


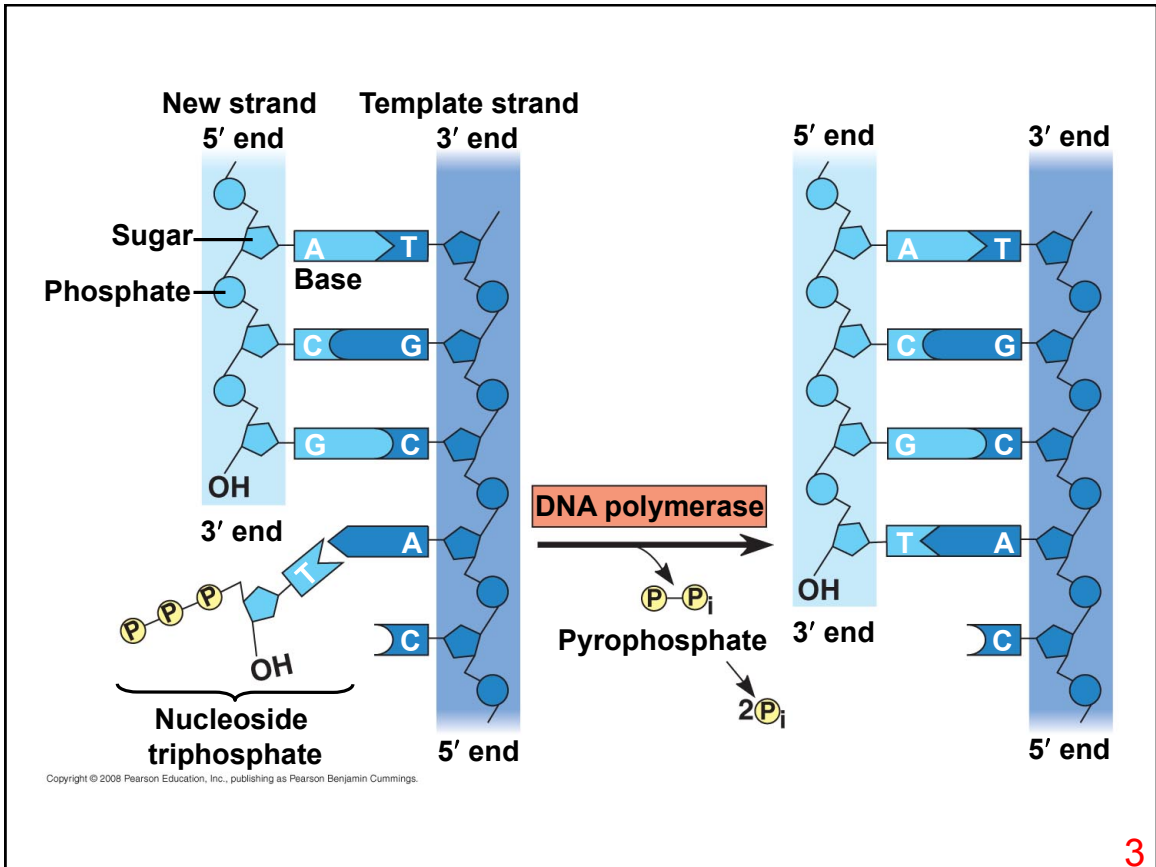
Polymerase Chain Reaction (PCR)

- Used to amplify a sample of DNA
- Many applications, including:
 - DNA sequencing
 - Phylogeny
 - Diagnosis of genetic disorders
 - Identity for forensics or paternity
- Amplification is exponential
- Requires thermal cycling
- DNA is doubled each cycle
- Typically used to amplify DNA fragments about 10 kb in length
- Usually uses 20 to 40 thermal cycles
















1



2



3

Nitrogenous base	Nucleoside	Deoxynucleoside
 Adenine	 Adenosine A	 Deoxyadenosine dA
 Guanine	 Guanosine G	 Deoxyguanosine dG
 Thymine	 5-Methyluridine m ⁵ U	 Thymidine dT
 Uracil	 Uridine U	 Deoxyuridine dU
 Cytosine	 Cytidine C	 Deoxycytidine dC

4

