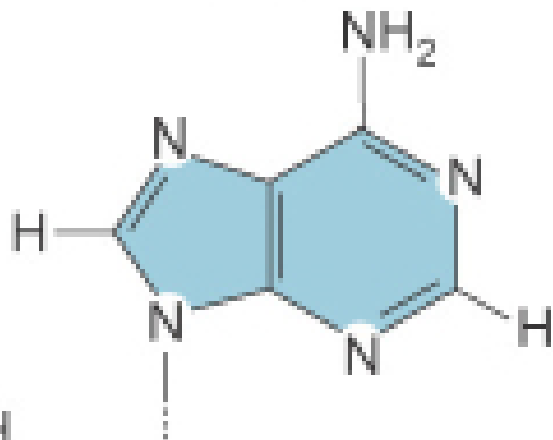
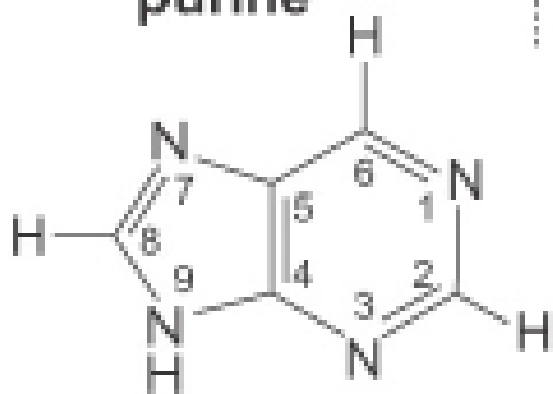


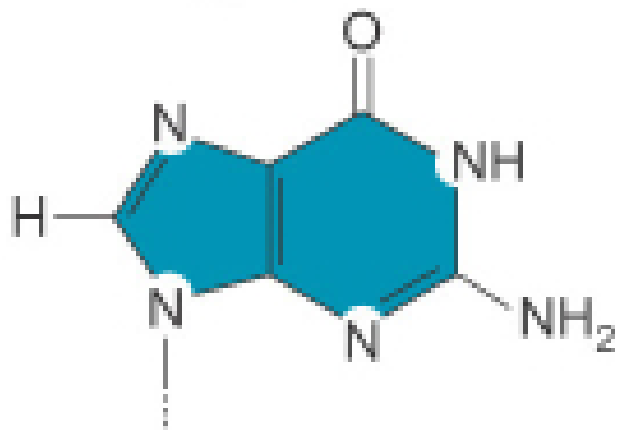
**adenine**



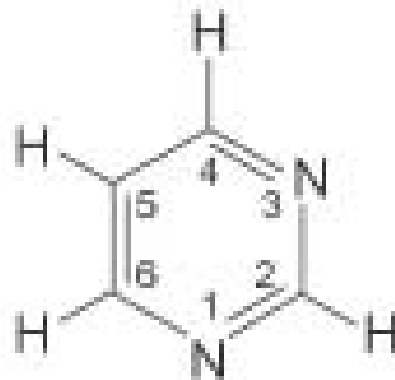
**purine**



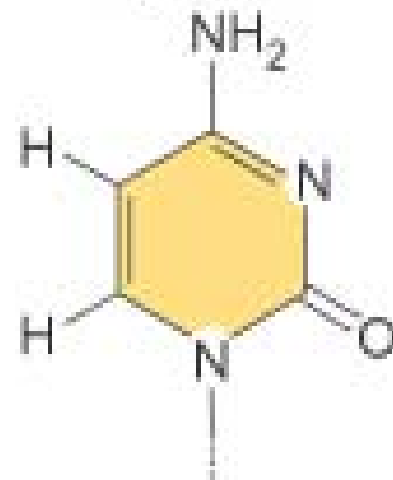
**guanine**



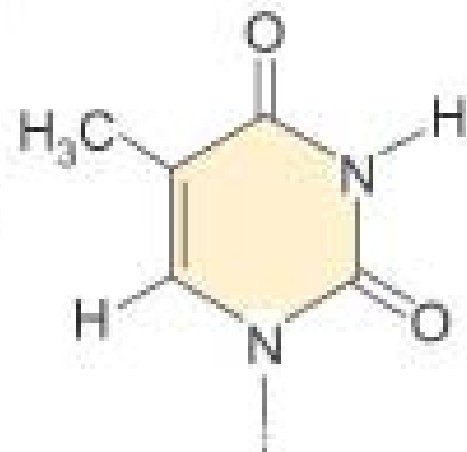
**pyrimidine**



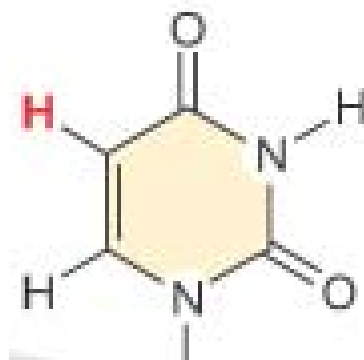
**cytosine**

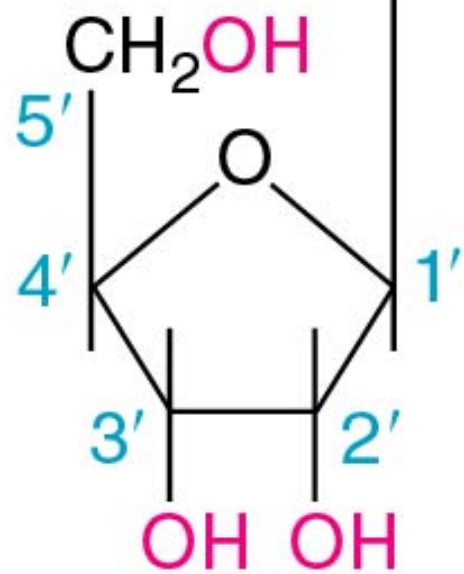
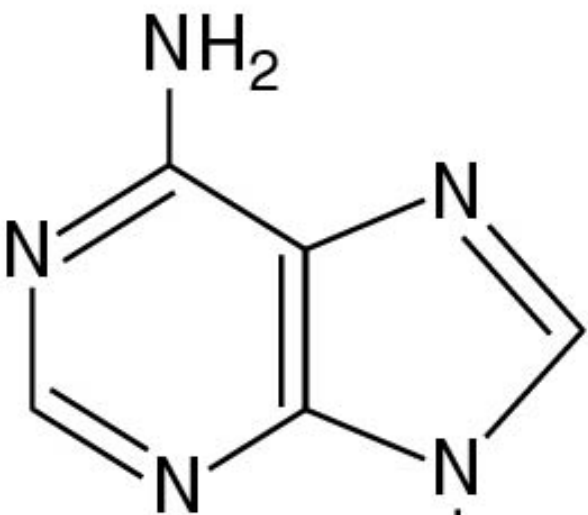


**thymine**

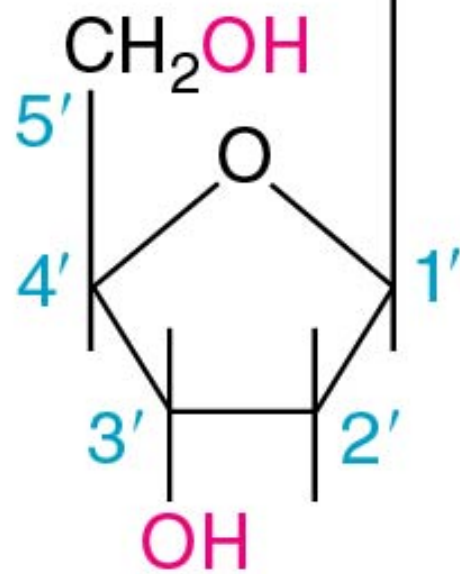
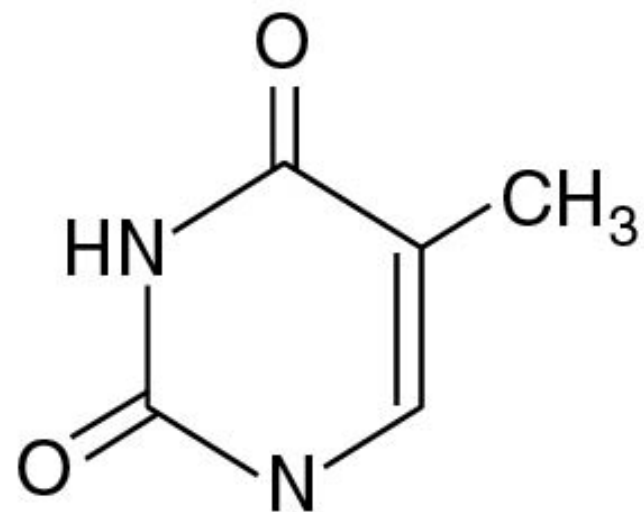


**Uracil (RNA)**





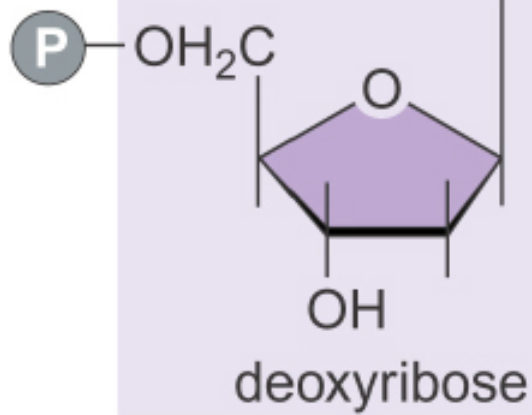
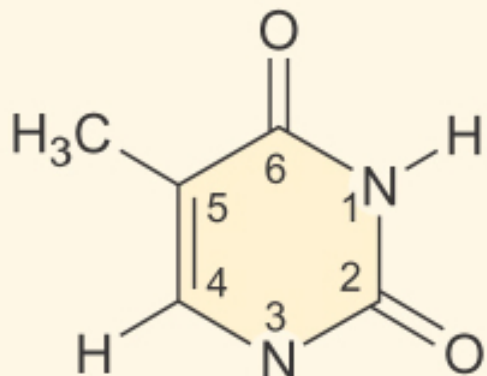
Adenosine



2'-deoxythymidine

deoxythymidine

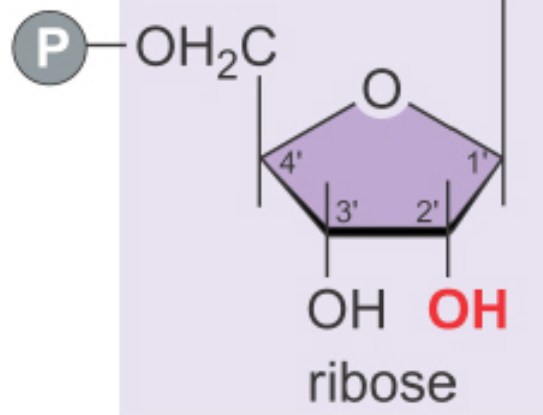
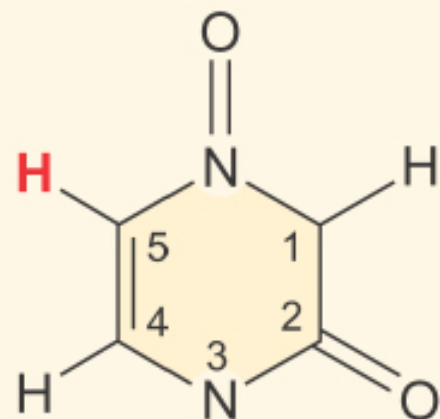
thymine (DNA)



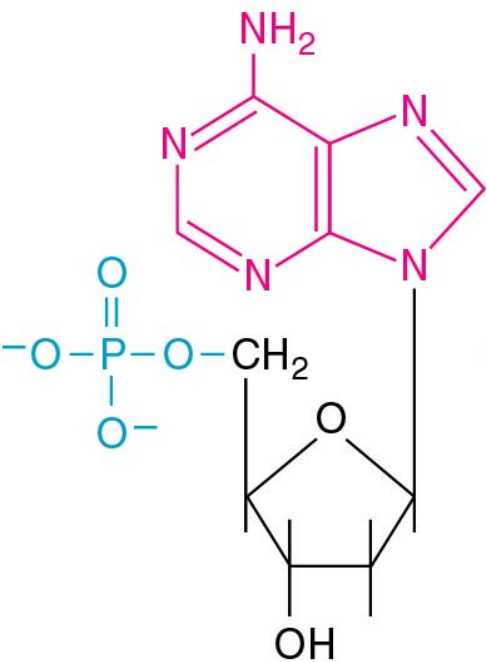
deoxythymidine-5'-phosphate

uridine

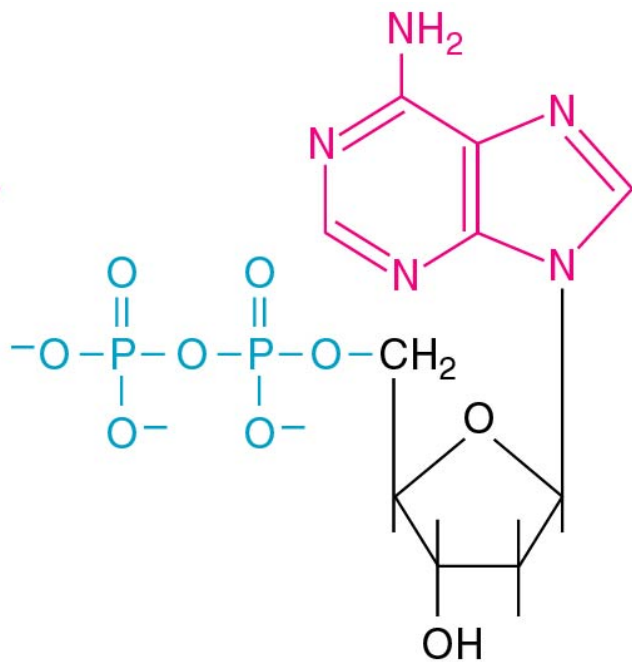
uracil (RNA)



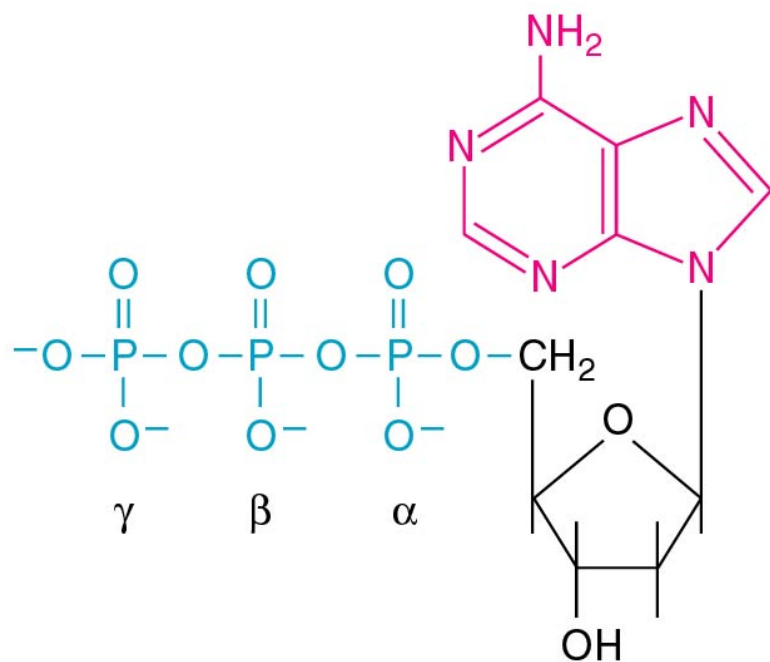
uridine-5'-phosphate



Deoxyadenosine-5'-  
monophosphate (dAMP)

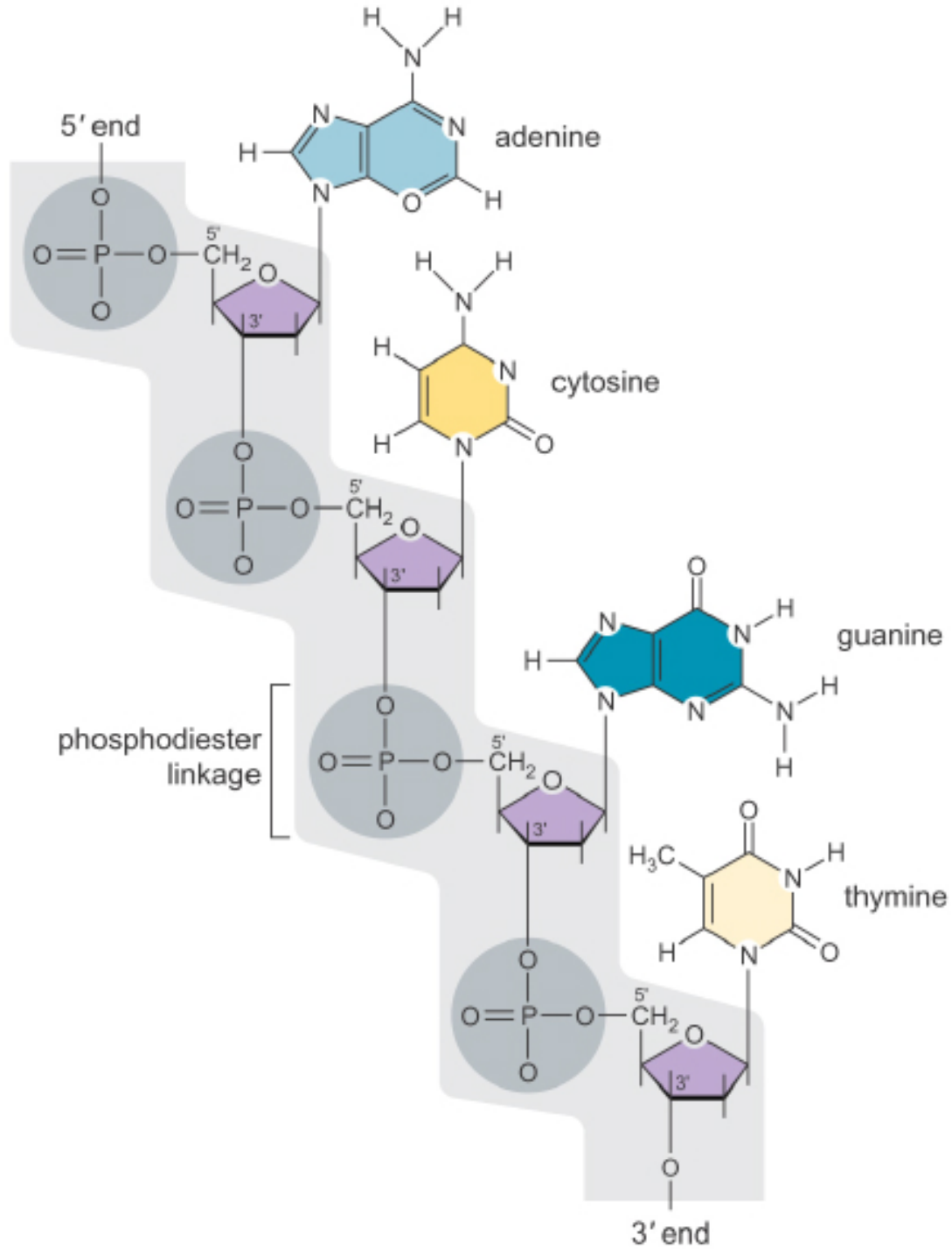


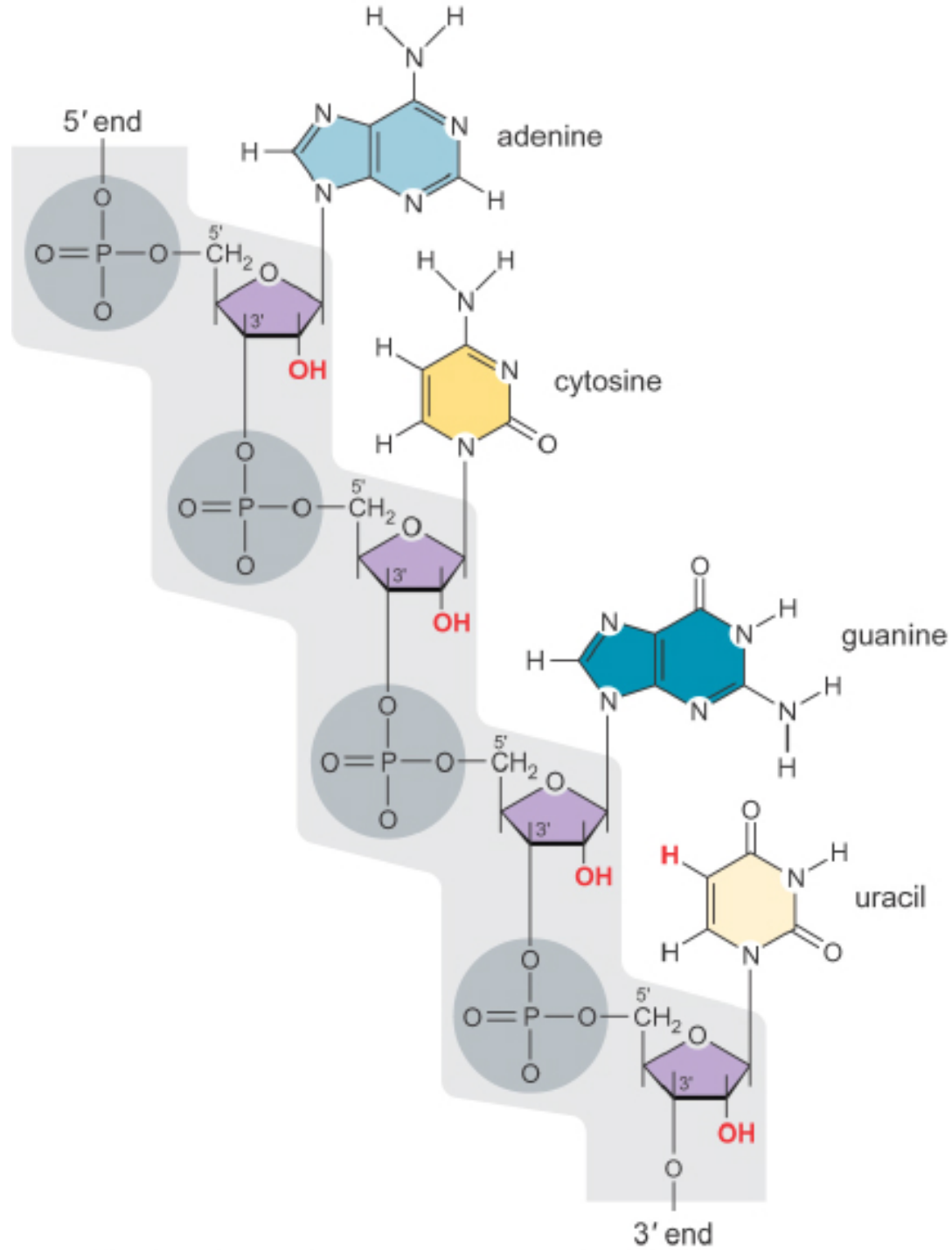
Deoxyadenosine-5'-  
diphosphate (dADP)

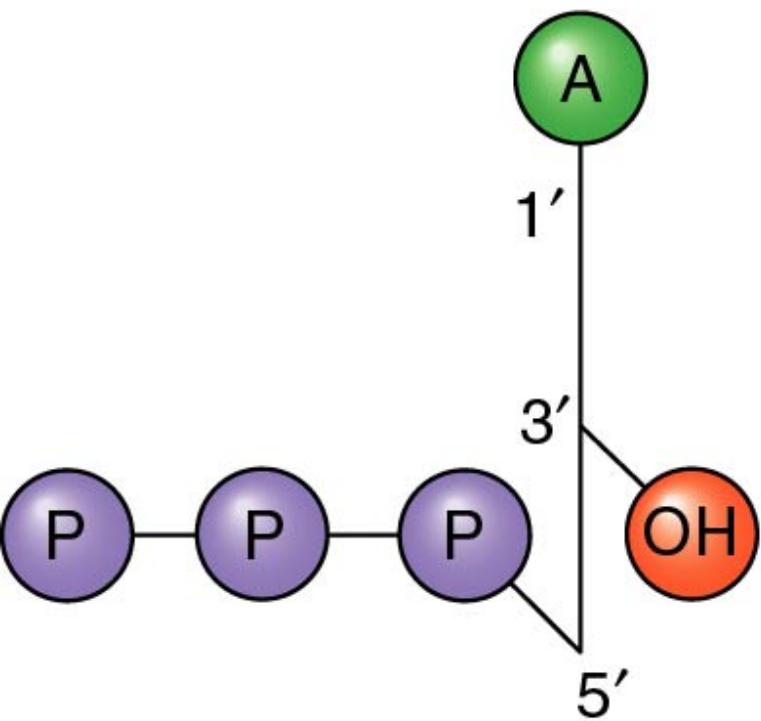


Deoxyadenosine-5'-  
triphosphate (dATP)

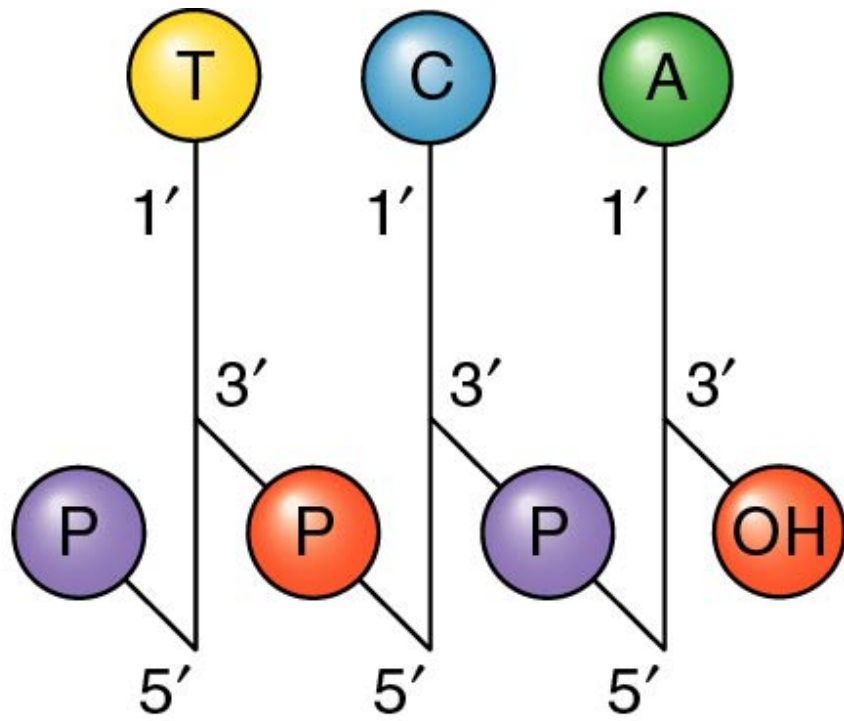
Base	Nucleoside	Nucleotide	Abbreviation	
			DNA	RNA
Adenine	Adenosine	Adenylic acid	dAMP	AMP
Guanine	Guanosine	Guanylic acid	dGMP	GMP
Cytosine	Cytidine	Cytidylic acid	dCMP	CMP
Thymine	Thymidine	Thymidylic acid	dTMP	
Uracil	Uridine	Uridylic acid		UMP





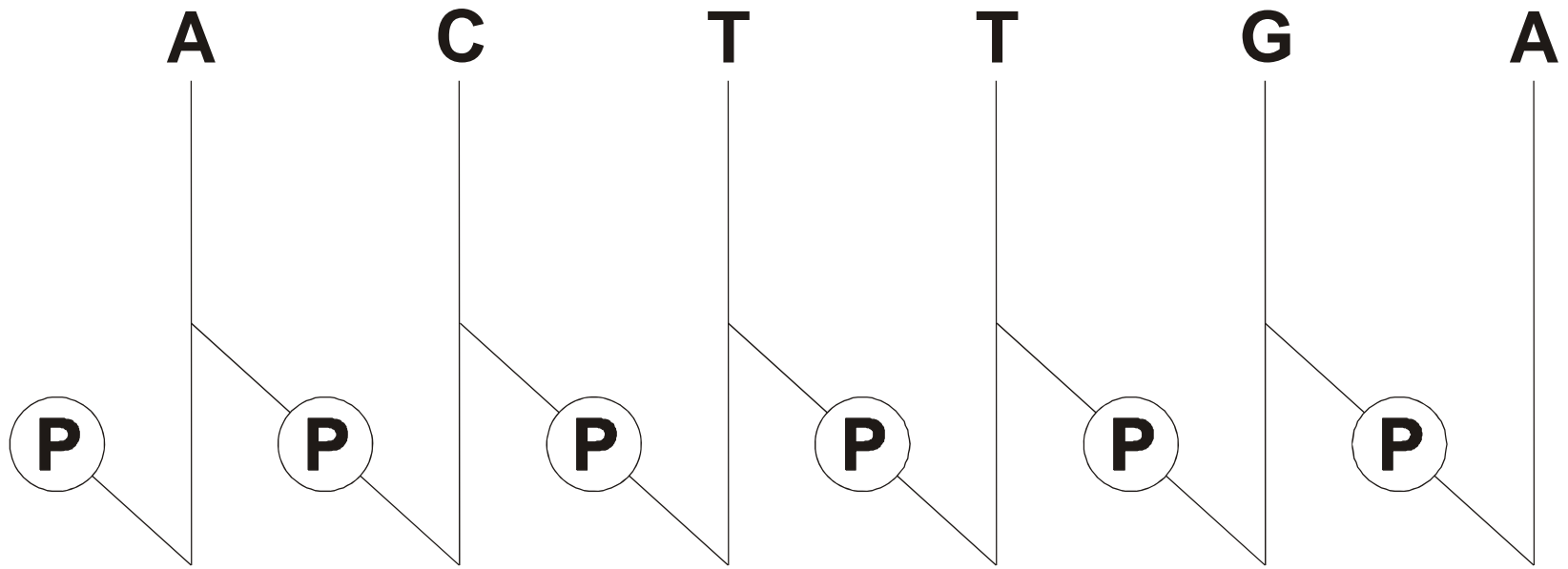


dATP



DNA strand



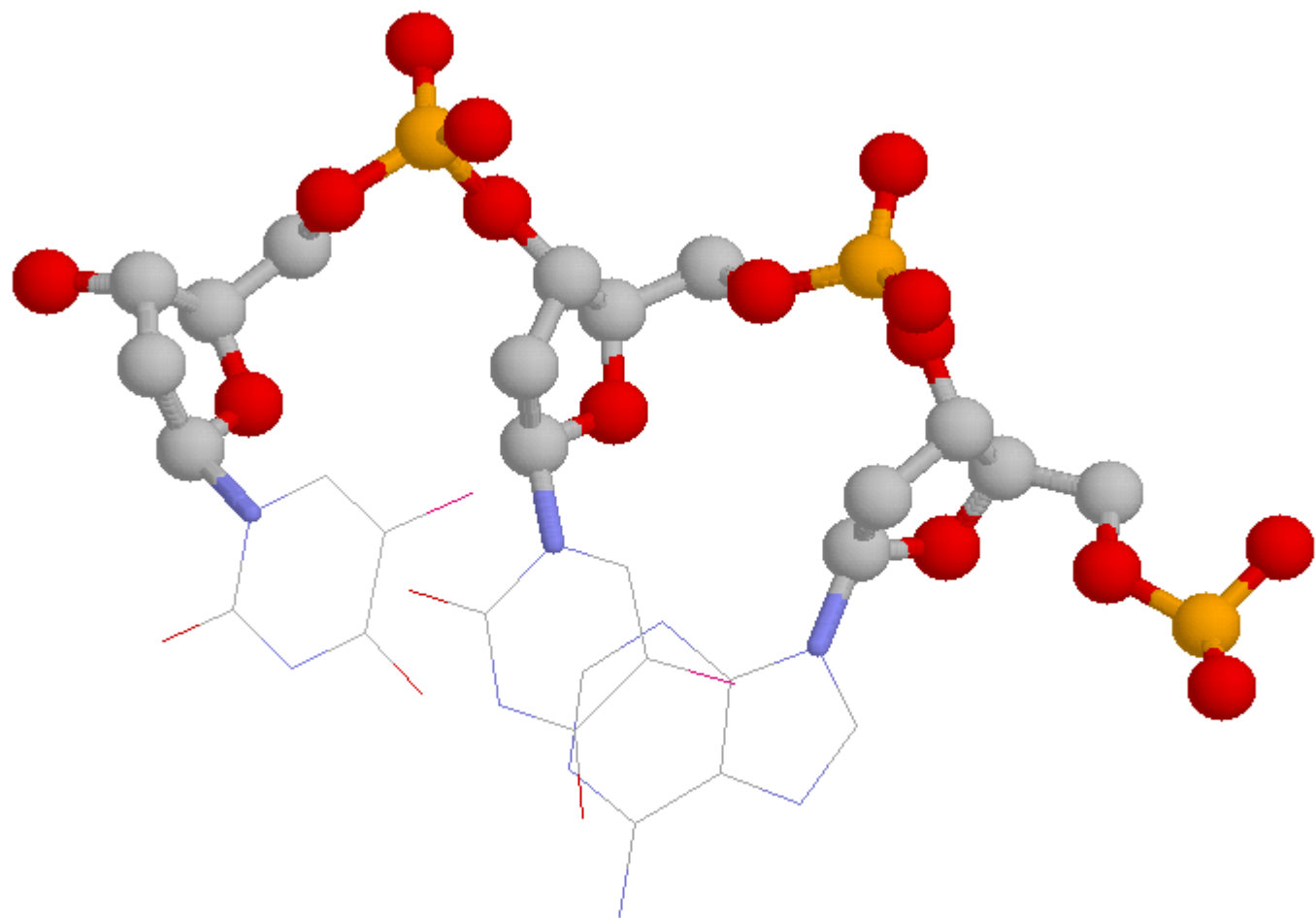


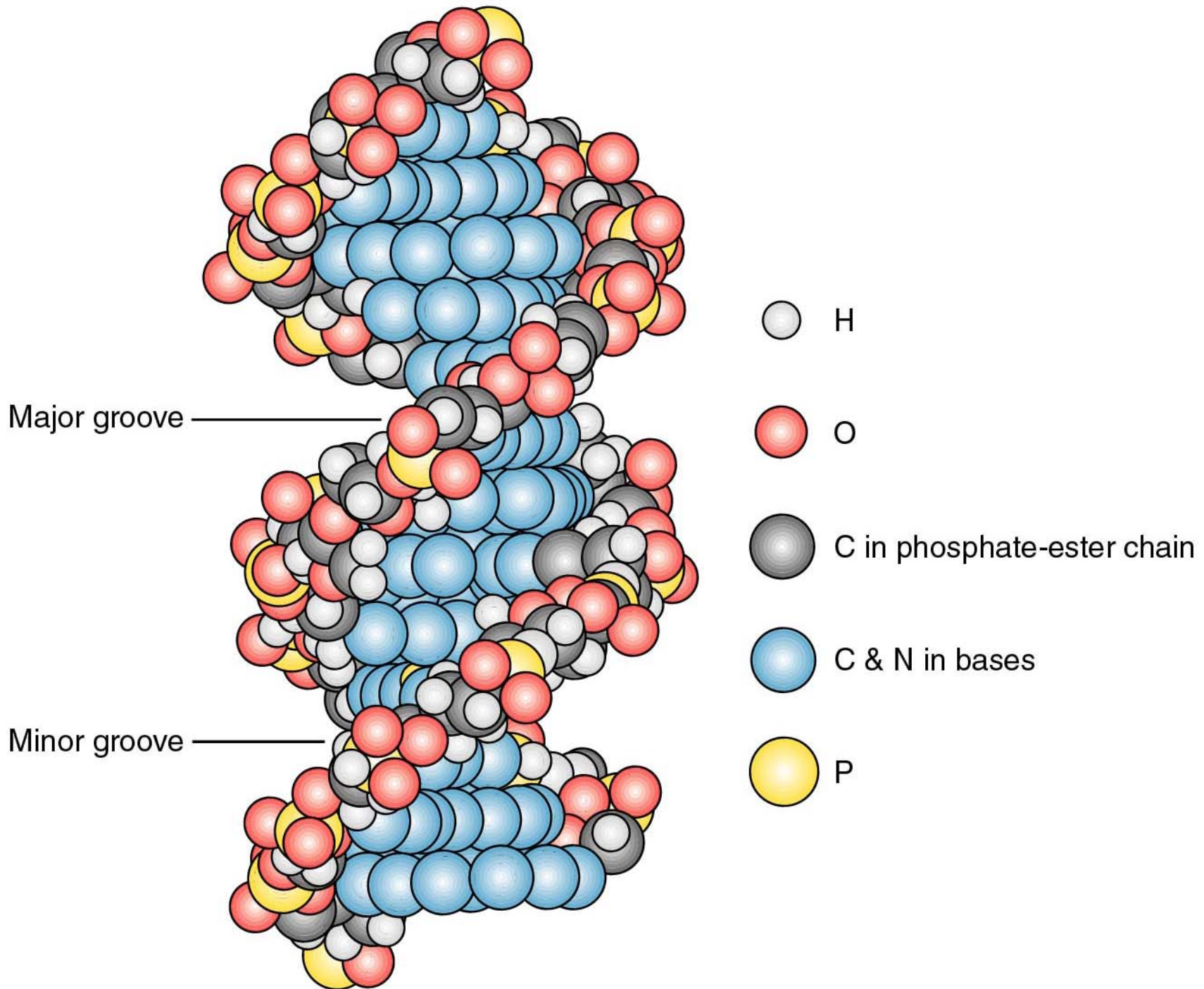
5' - ACTTGA - 3'

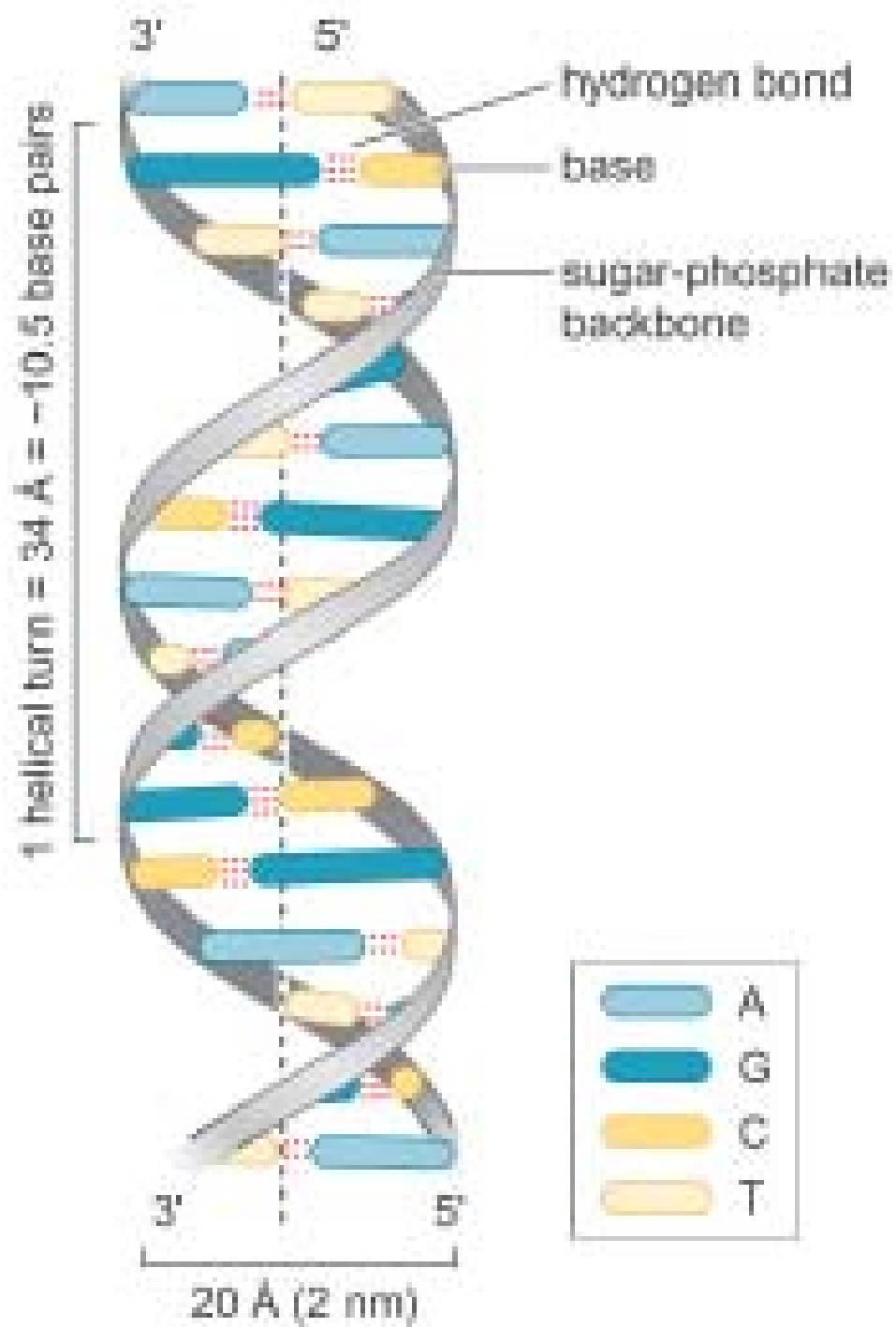
ACTTGA

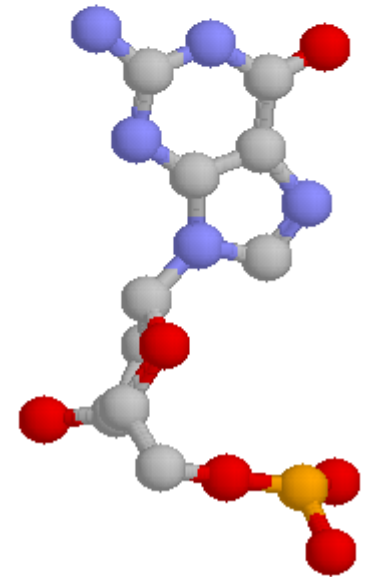
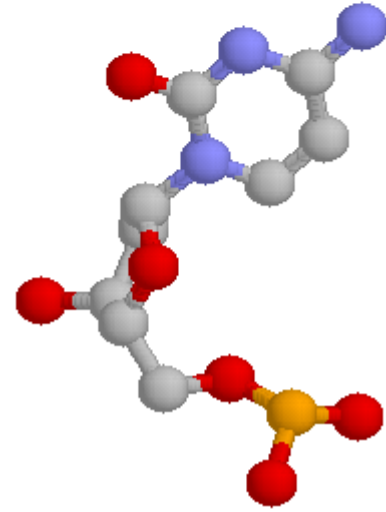
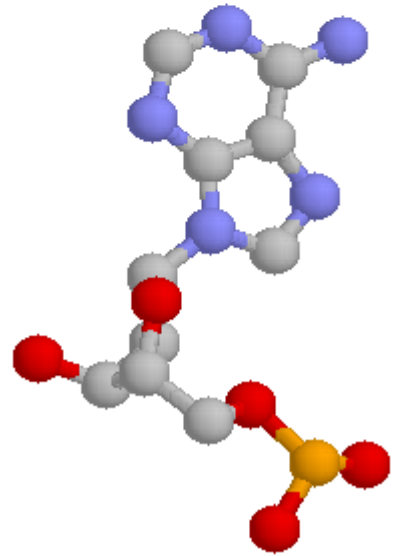
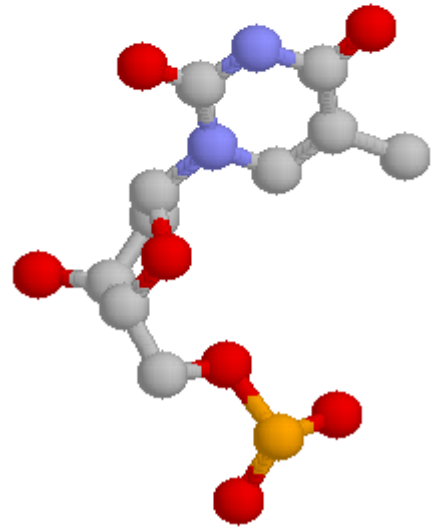
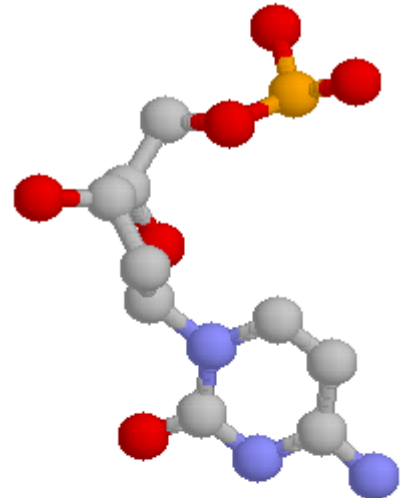
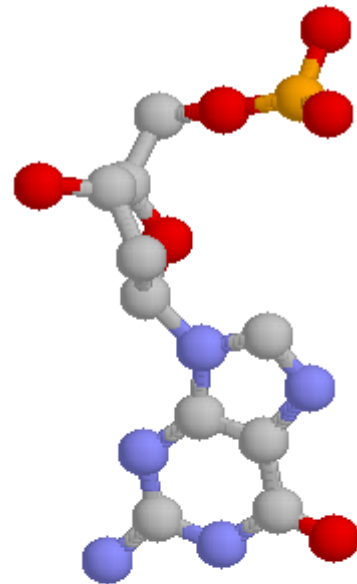
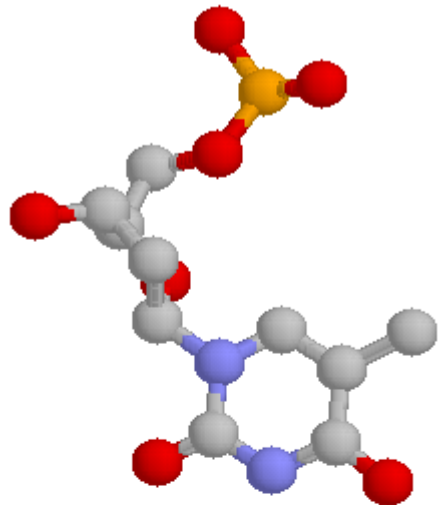
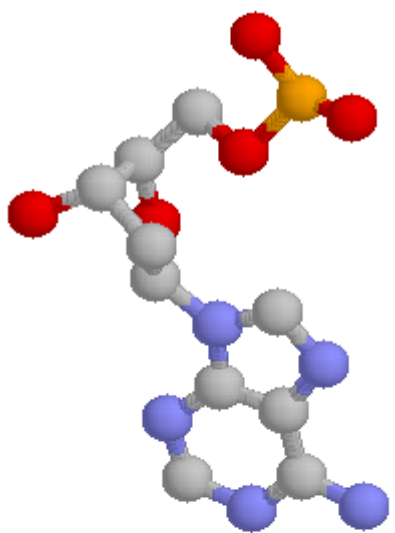
5' - ACTTGA - 3'

3' - TGAACT - 5'

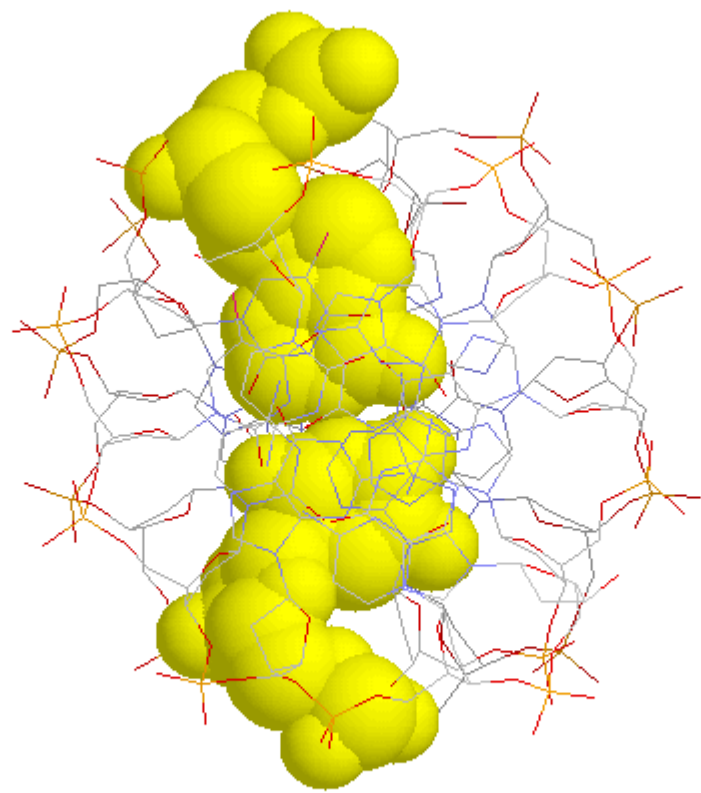


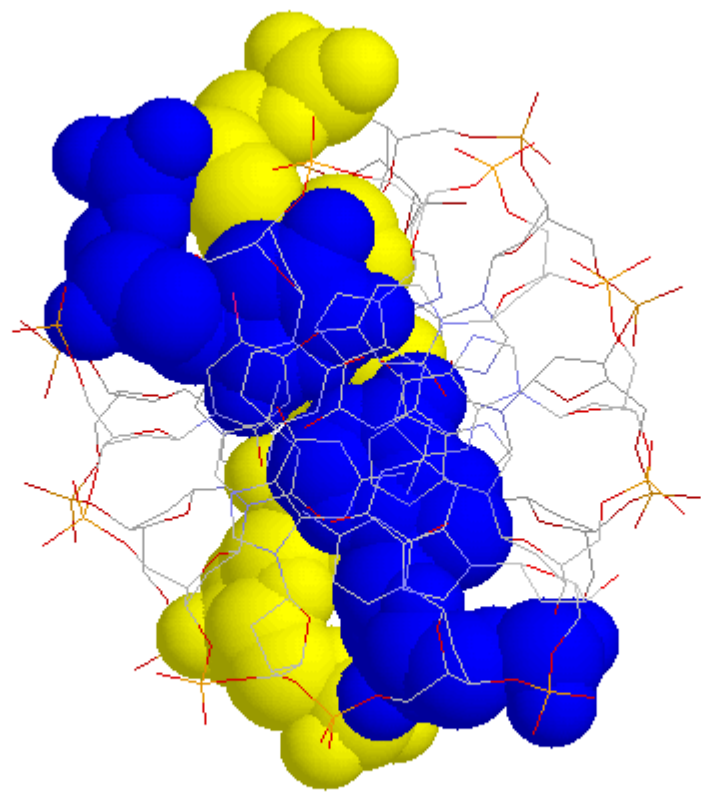




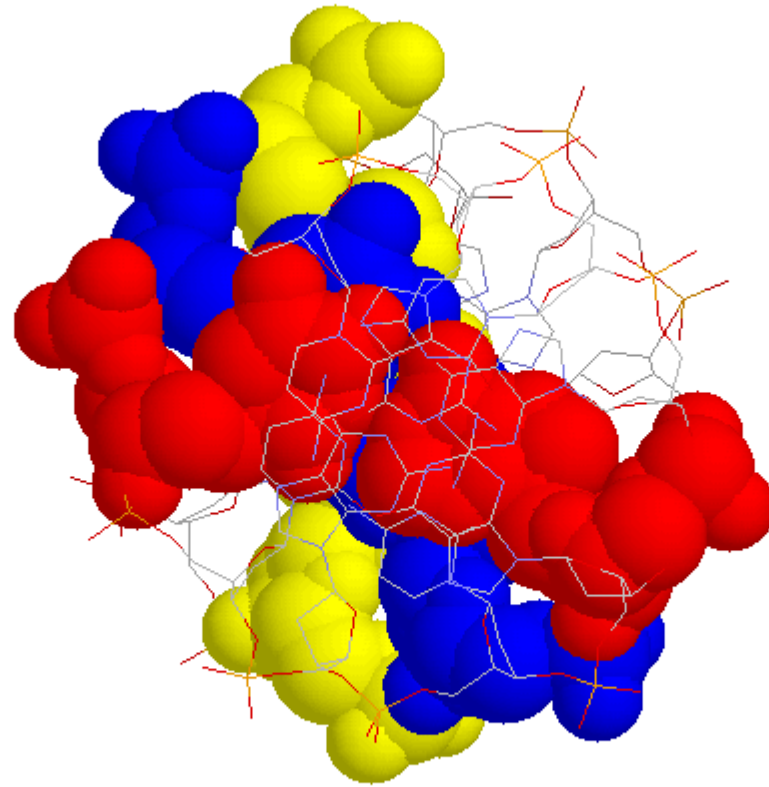








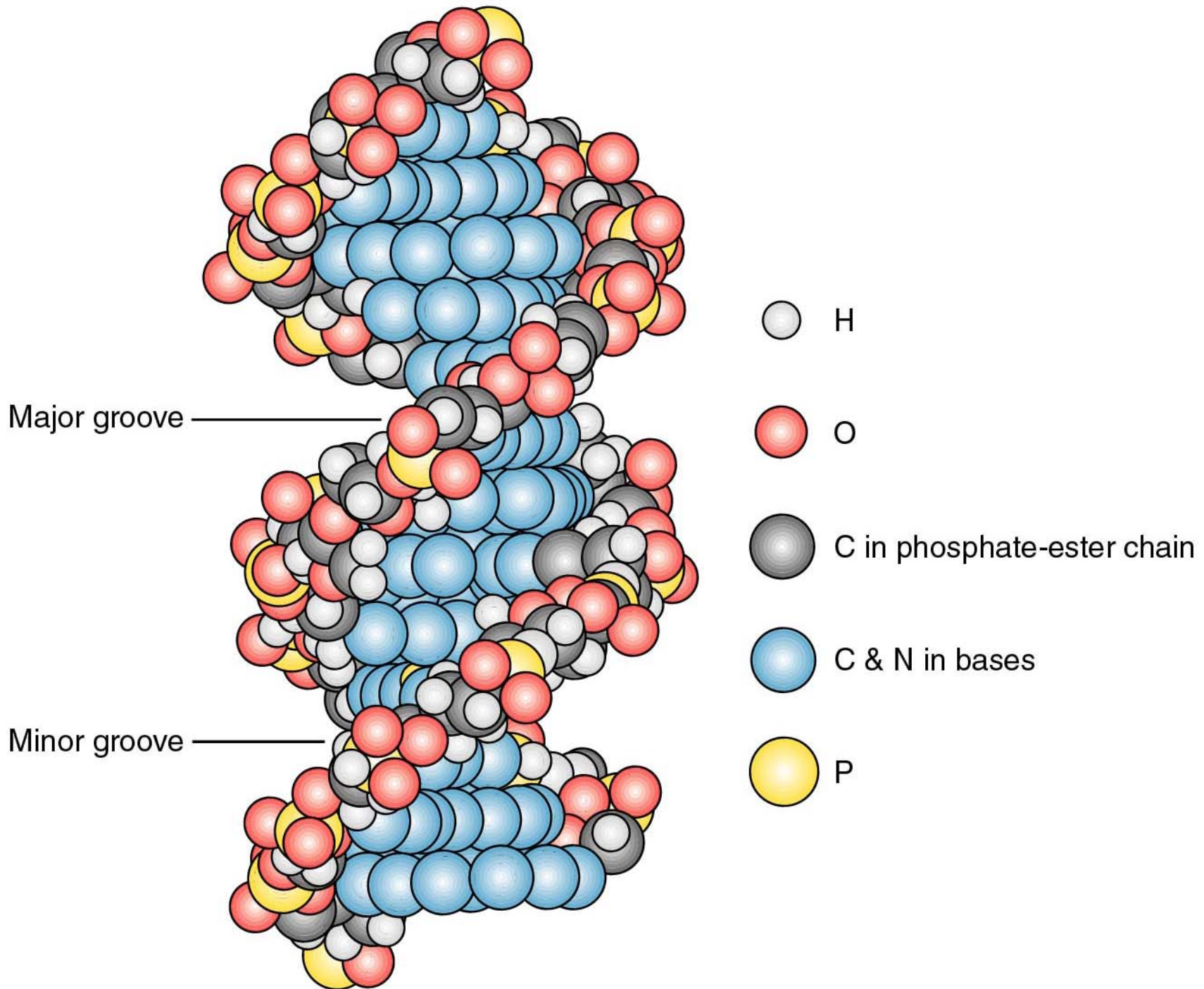


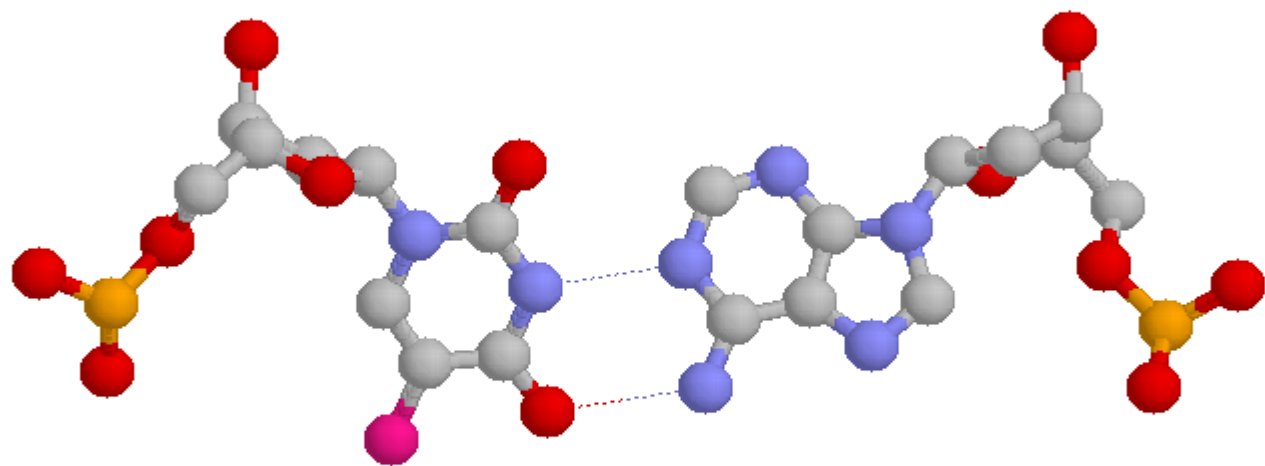


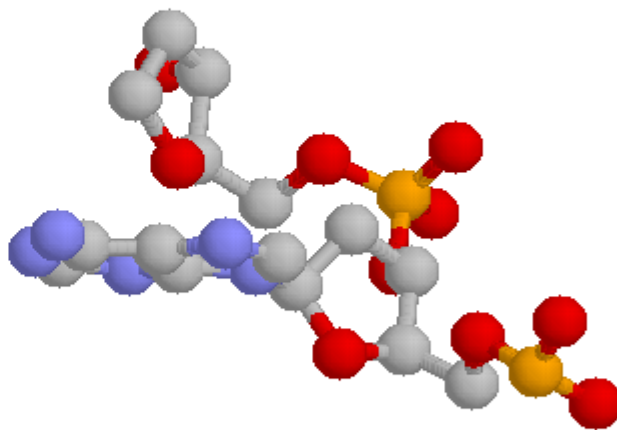
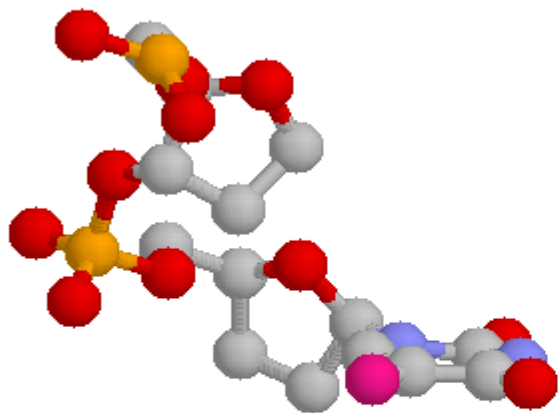


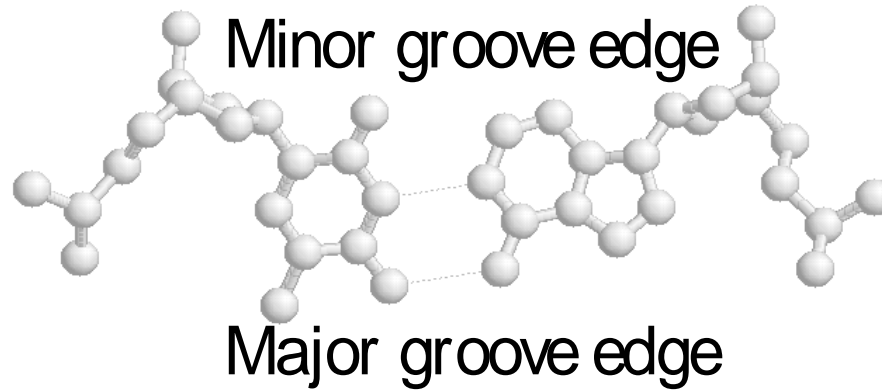
Excellent try, my dear Watson, but...  
could you bring me a mirror, old boy?

SIMON '98

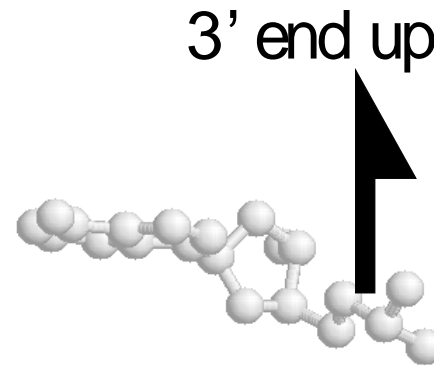
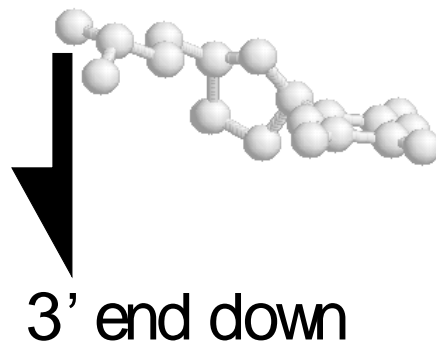
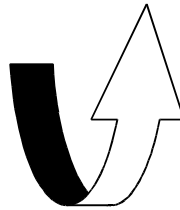


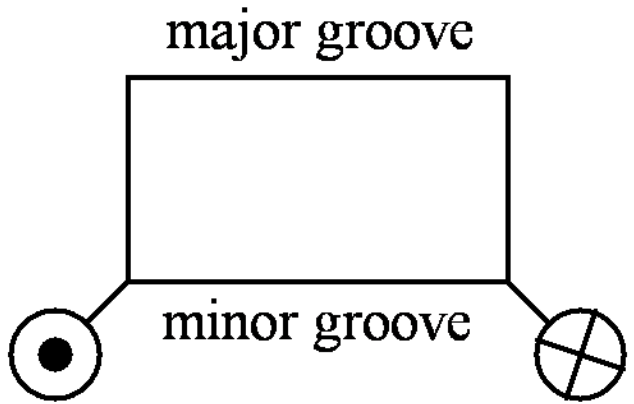






Rot at e so  
major groove  
edge faces  
toward you

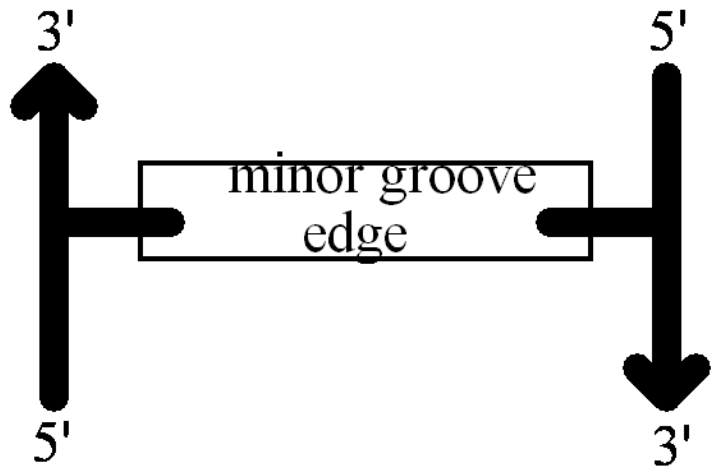




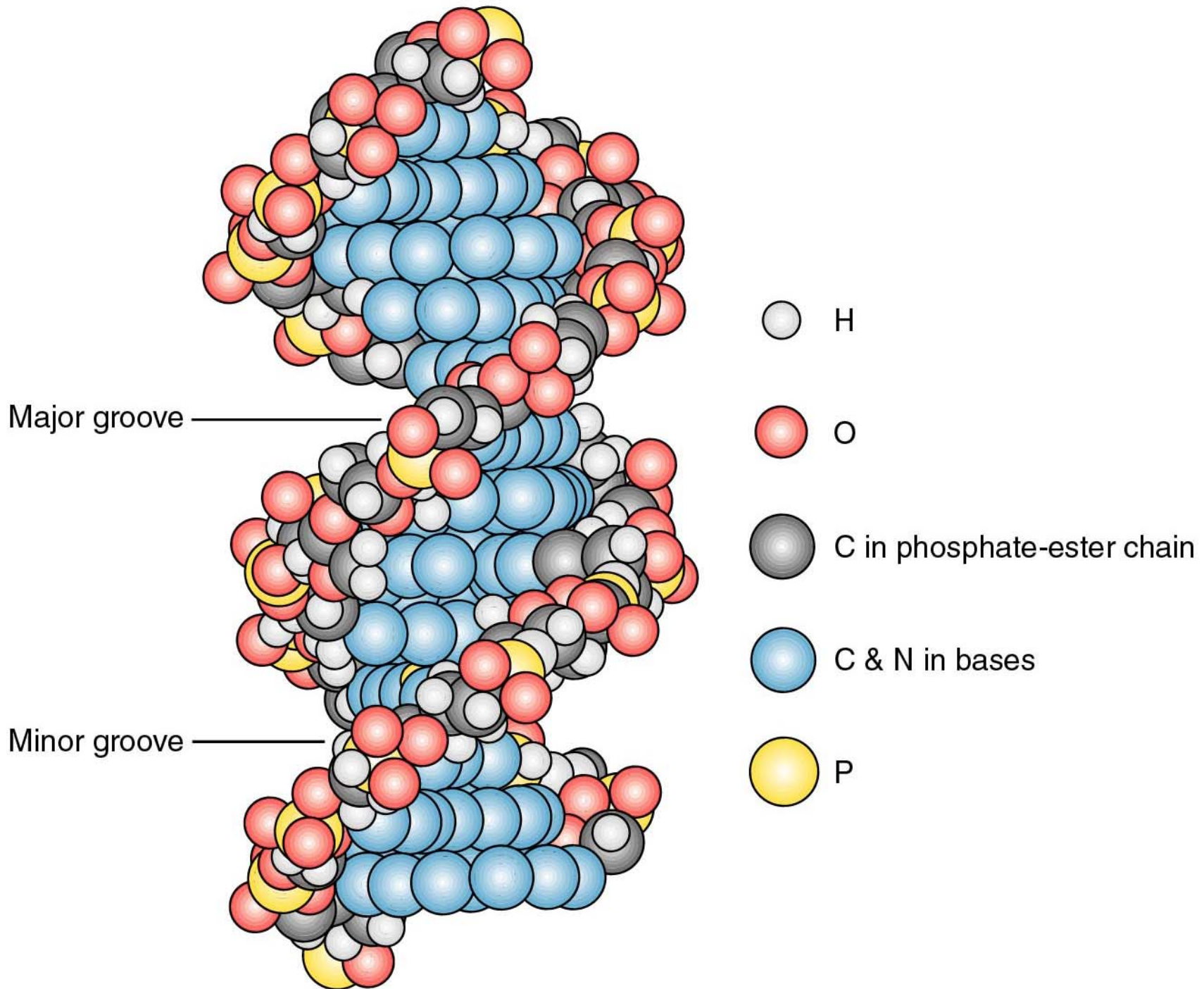
5' away  
from  
your eye

5' toward  
your eye

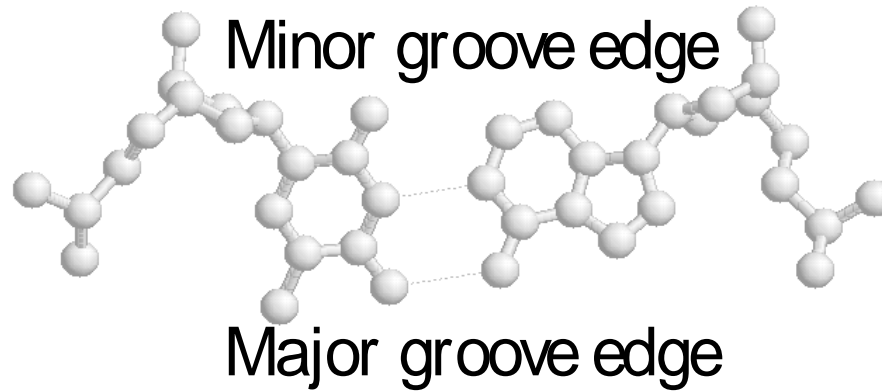
Looking along helix axis



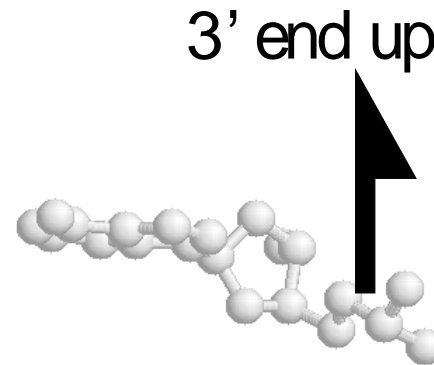
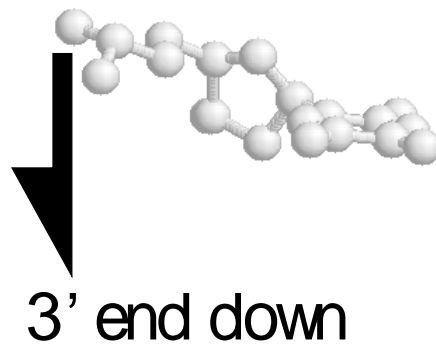
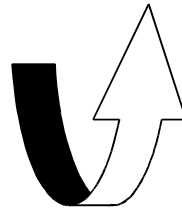
Looking perpendicular to helix axis

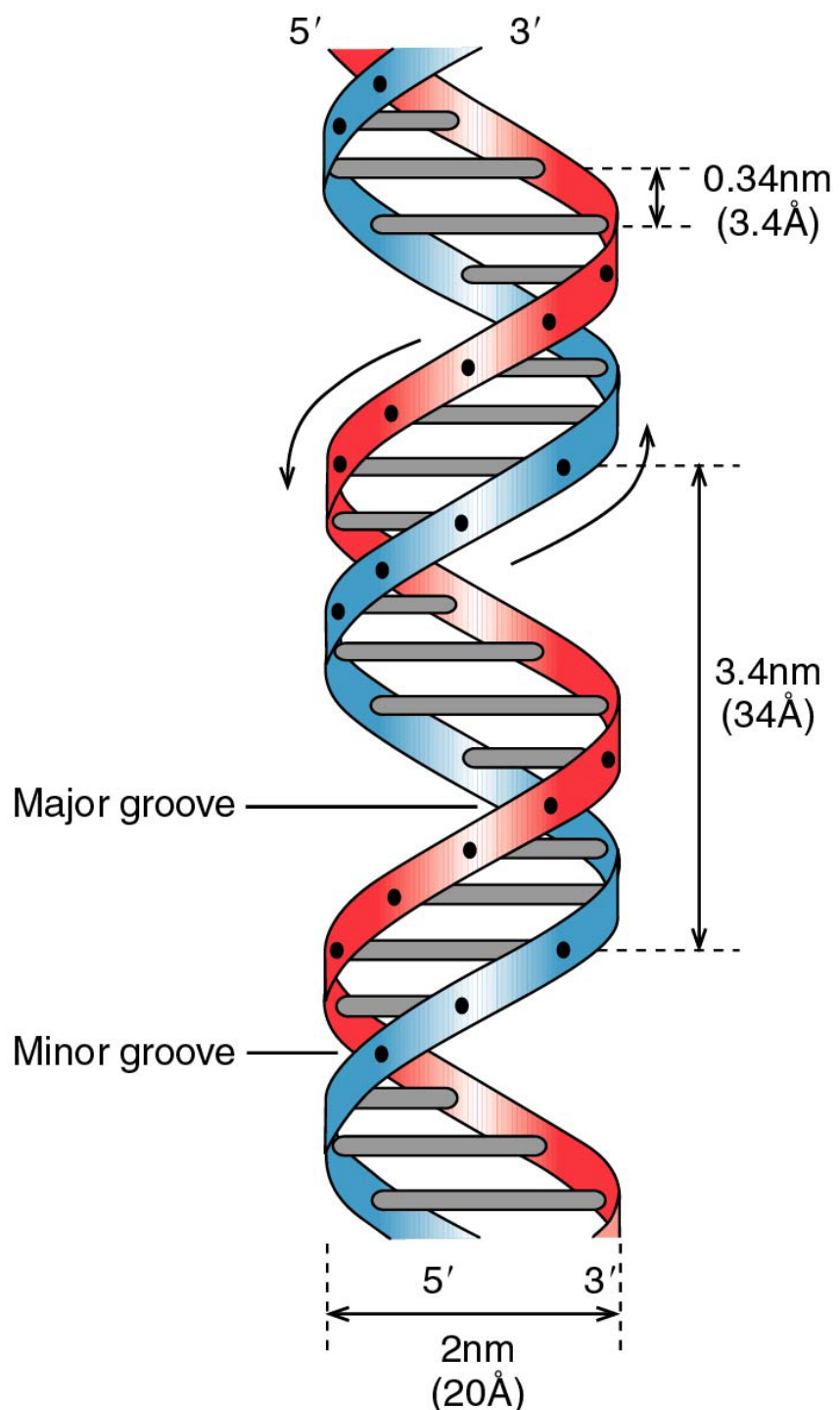


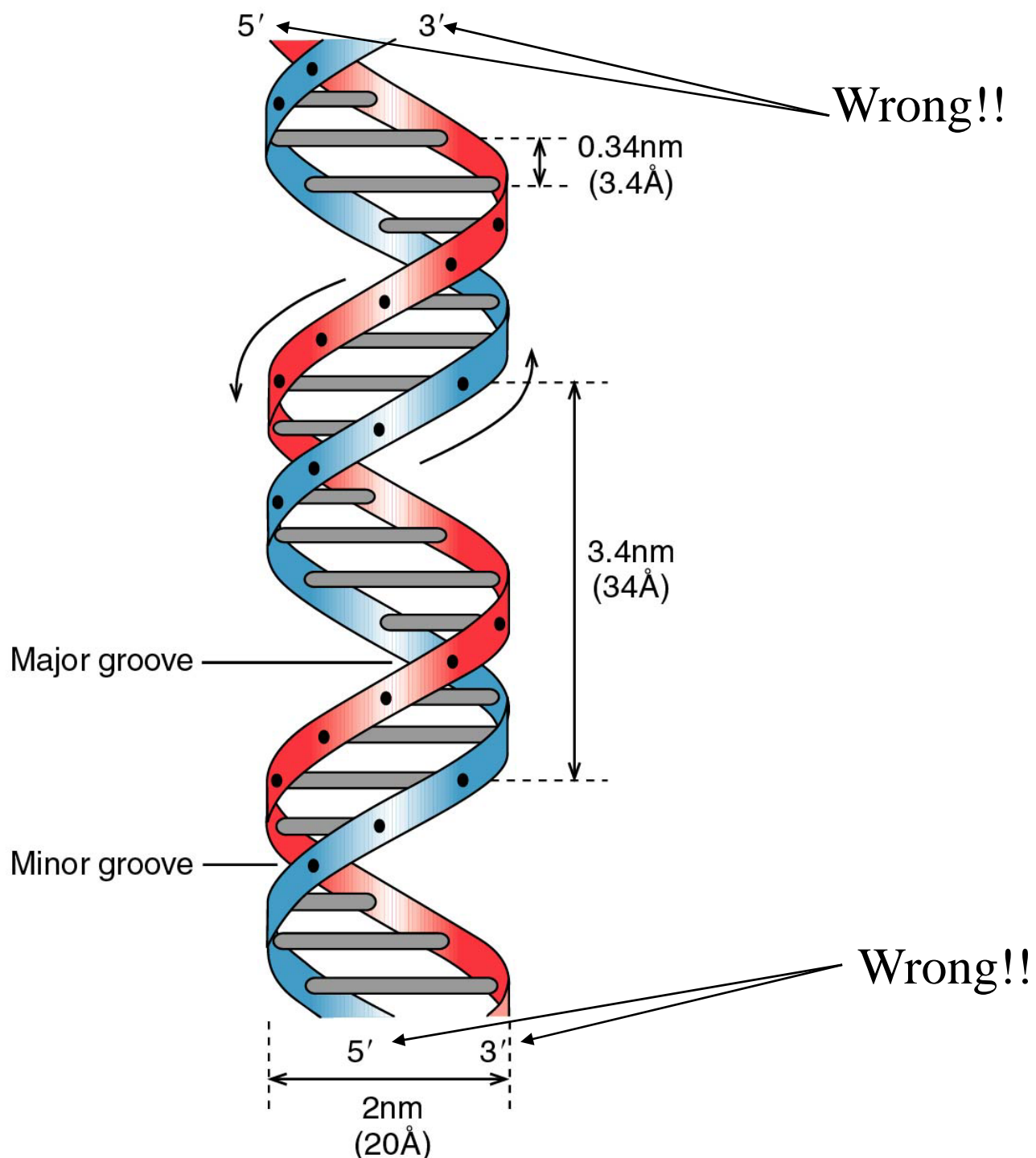


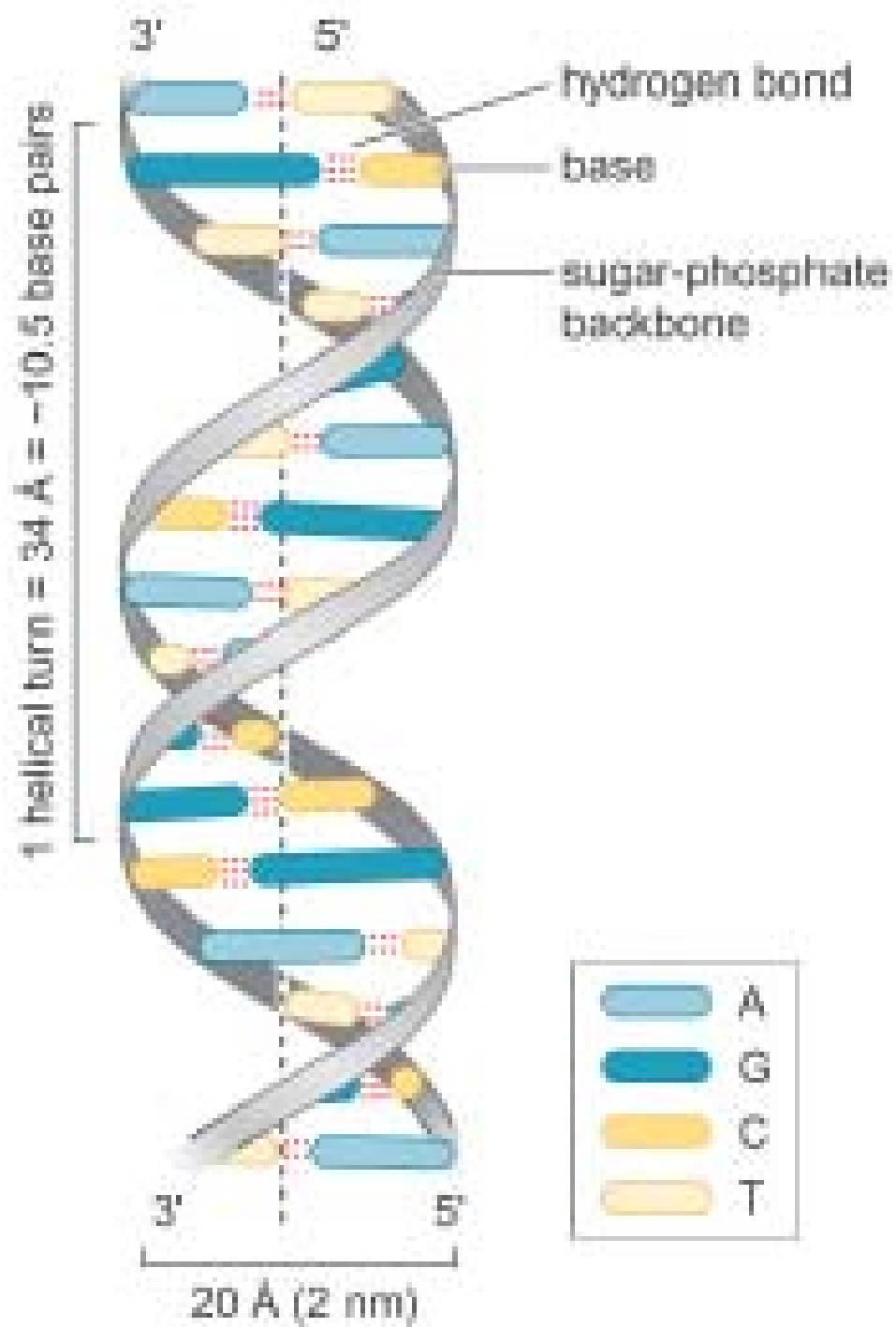


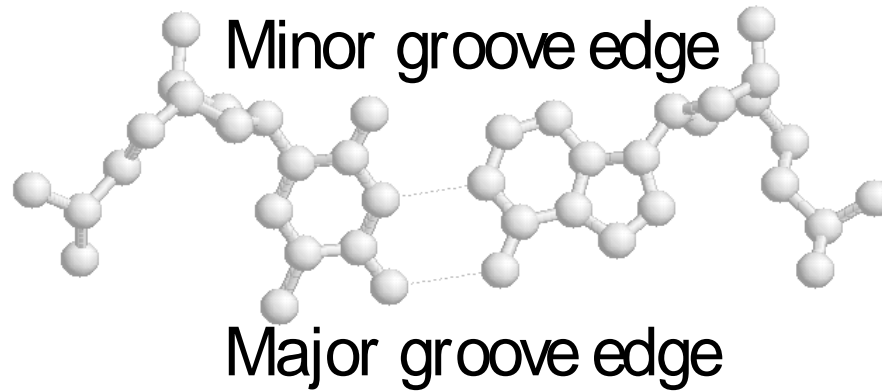
Rot at e so  
major groove  
edge faces  
toward you



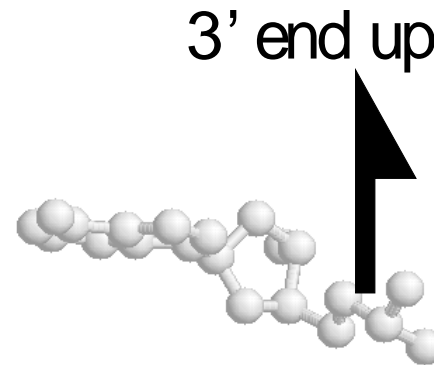
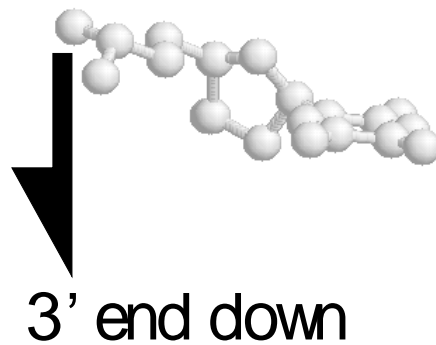
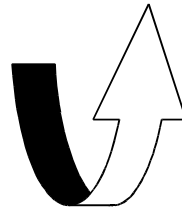


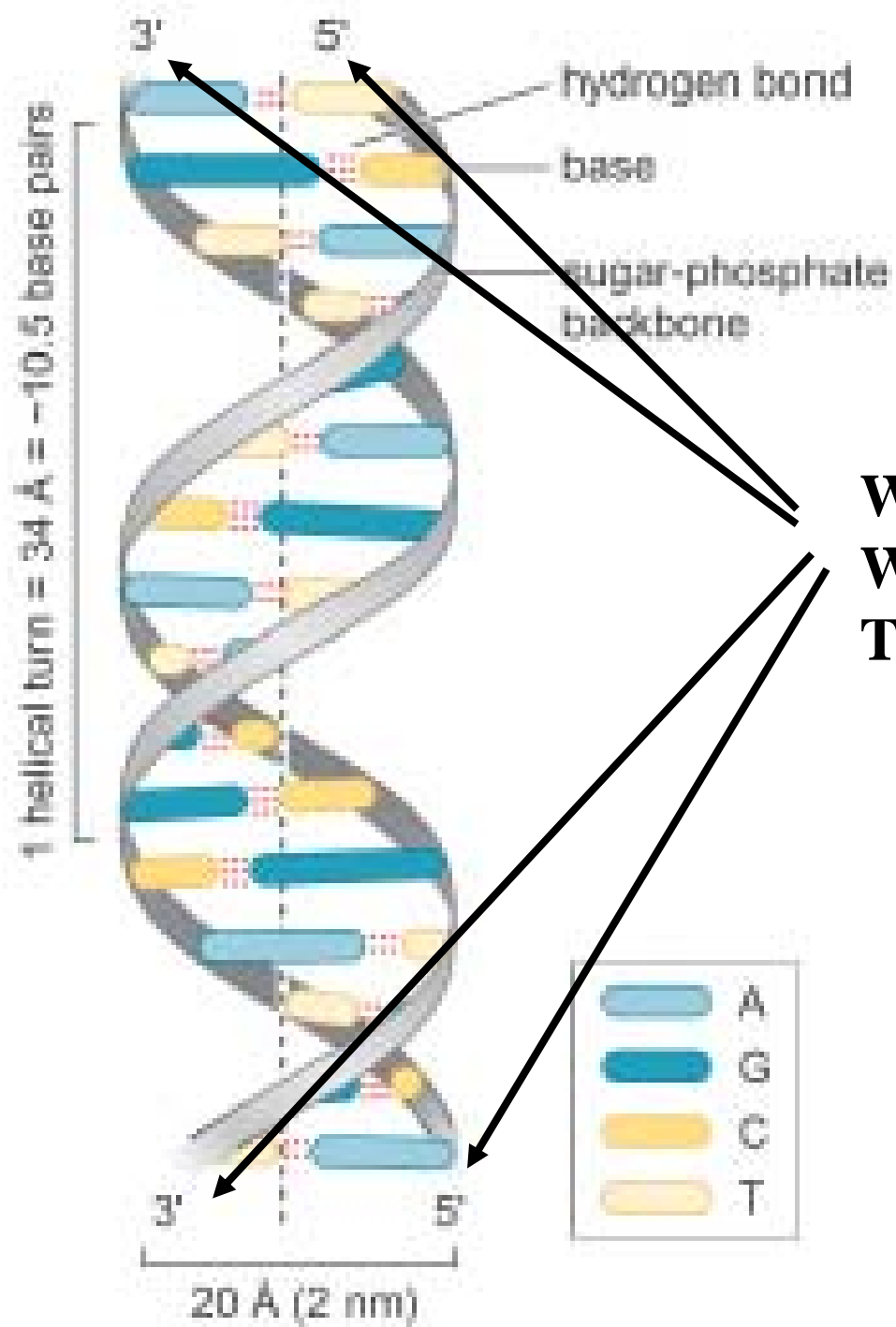




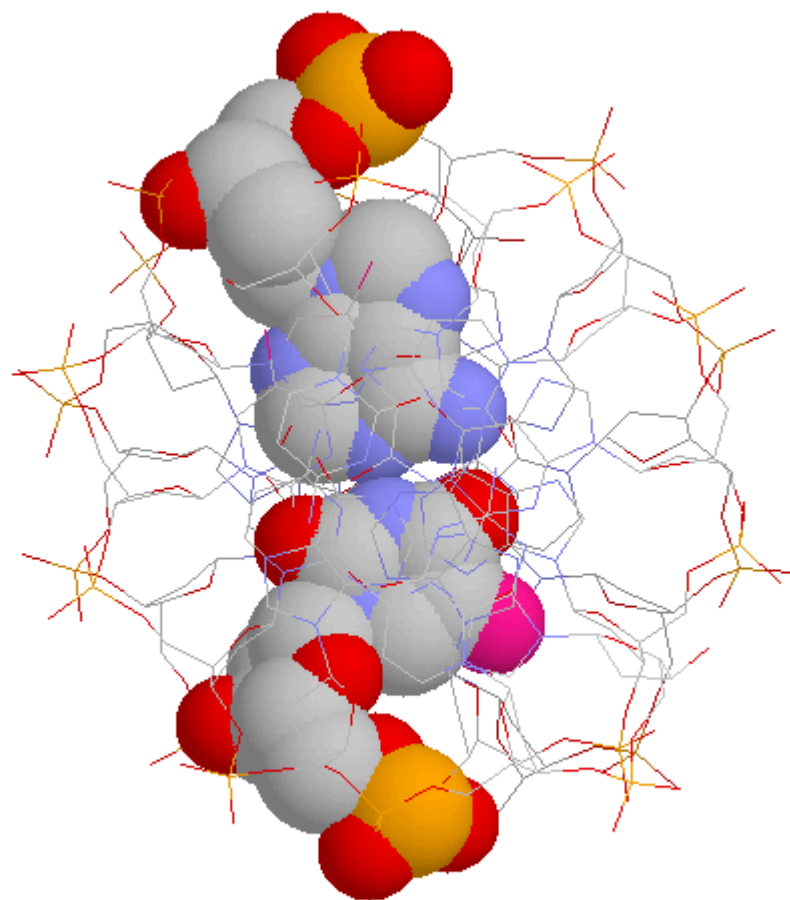
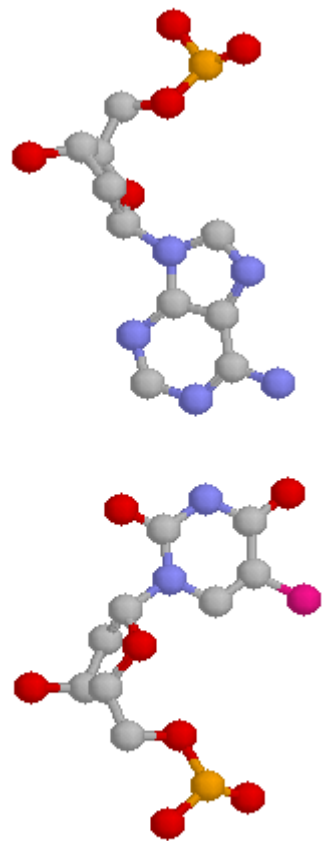


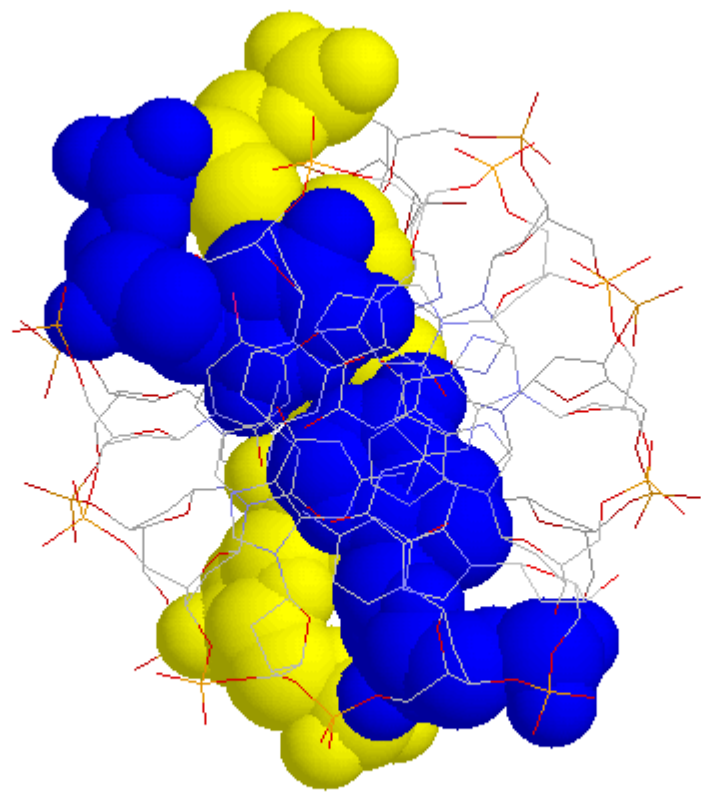
Rot at e so  
major groove  
edge faces  
toward you



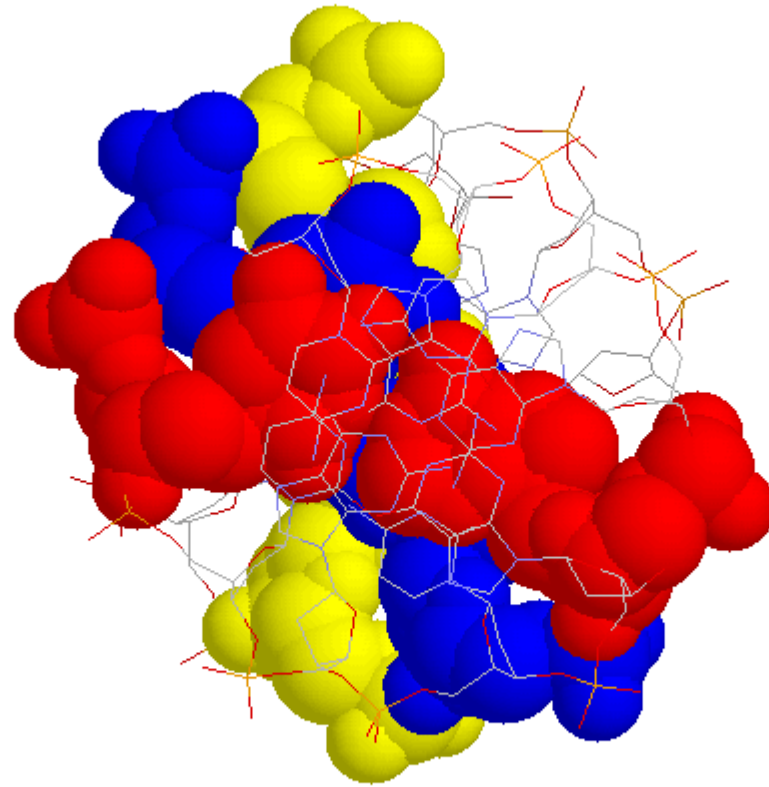


**WATSON'S  
WRONG  
TOO!**

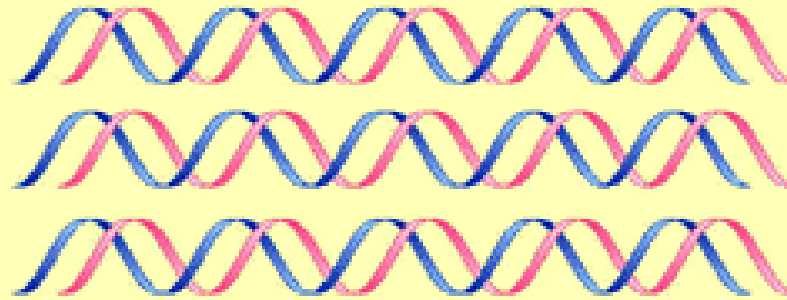






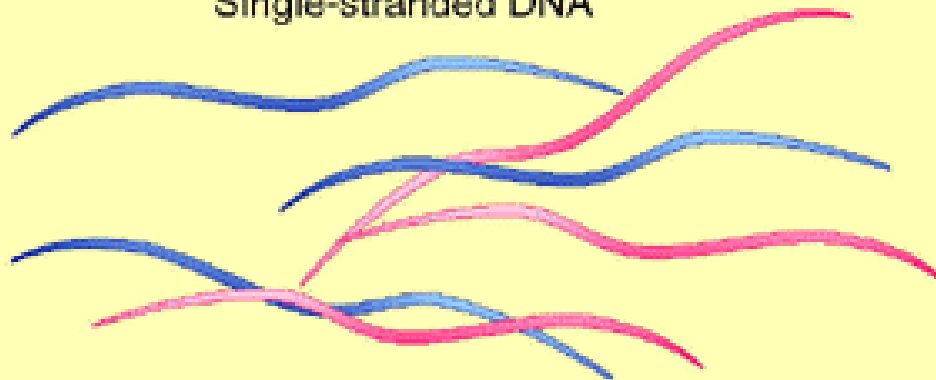


Double-stranded DNA



Denaturation

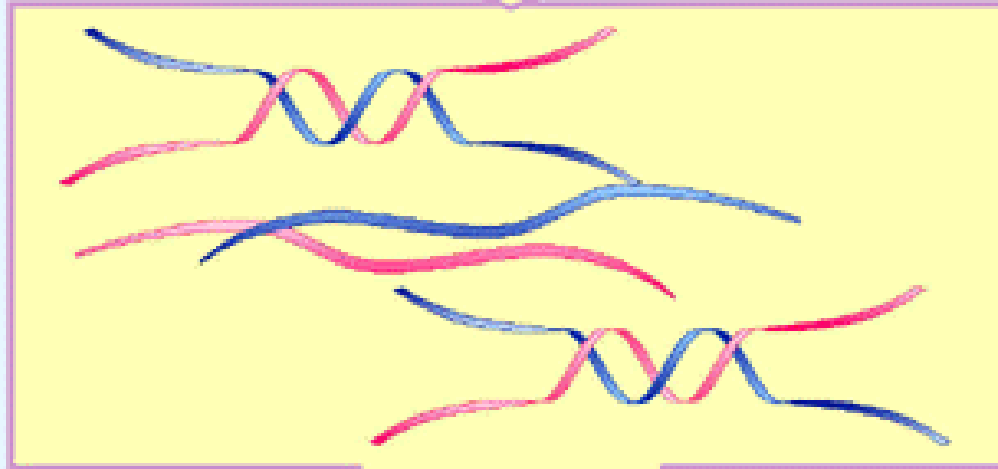
Single-stranded DNA



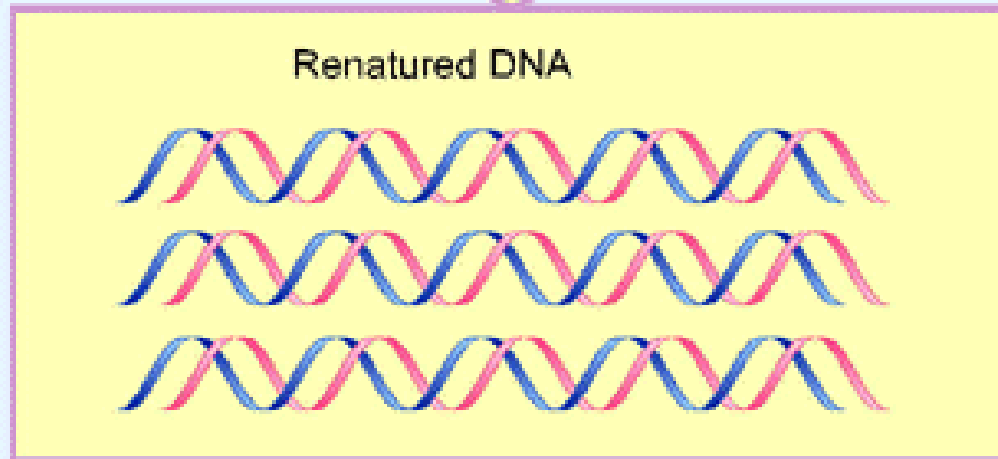
Renaturation

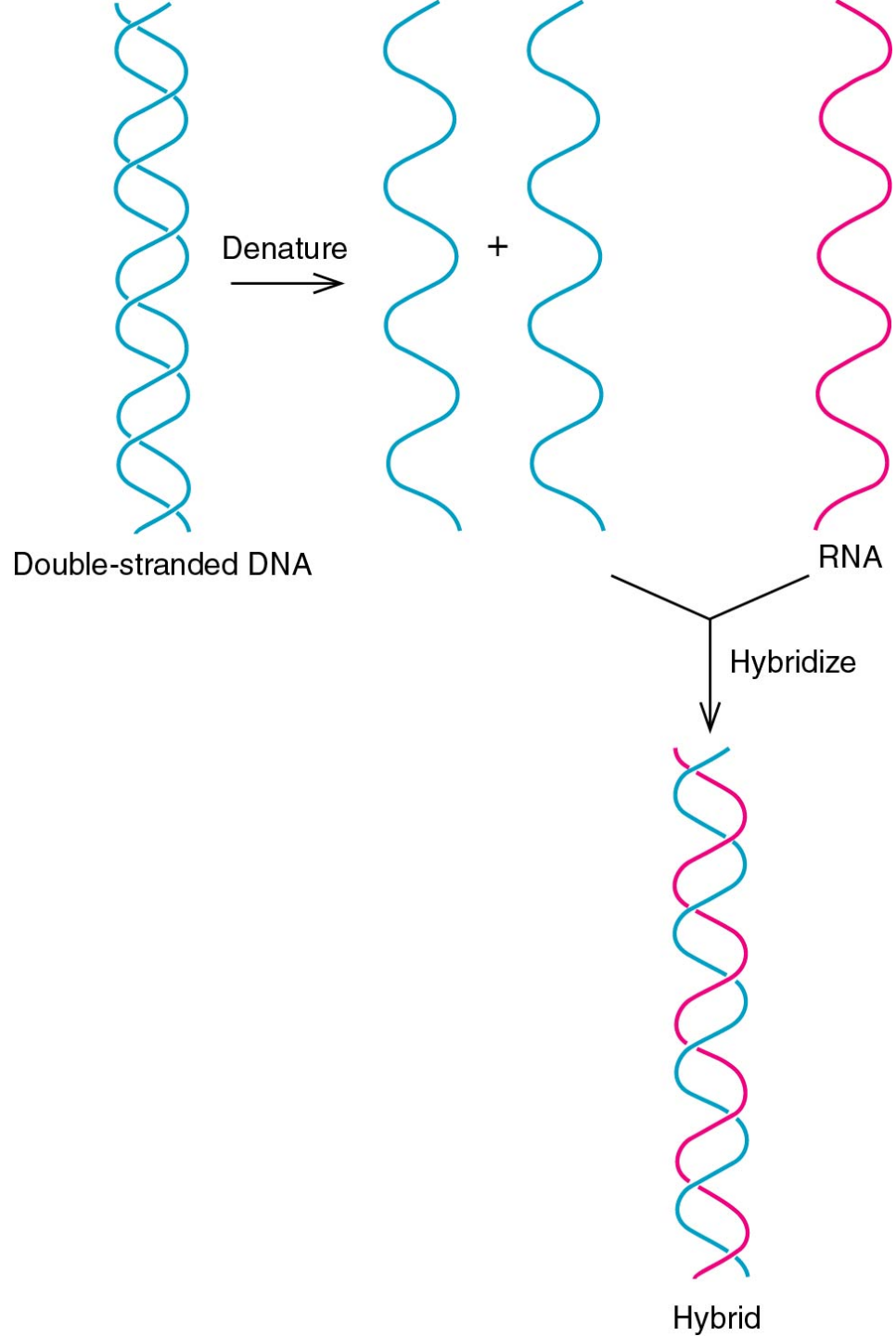
Renaturation

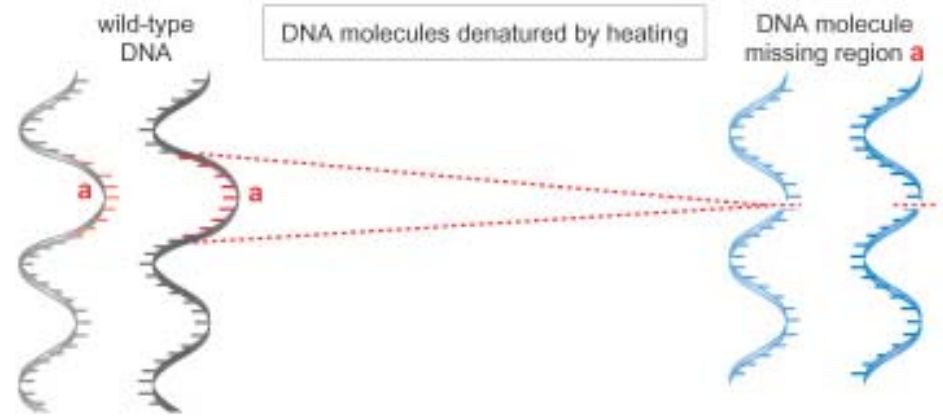
Nucleation

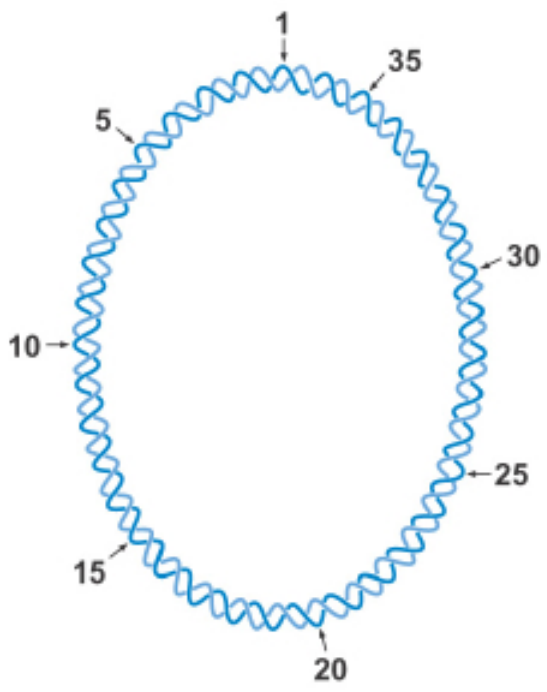


Zippering



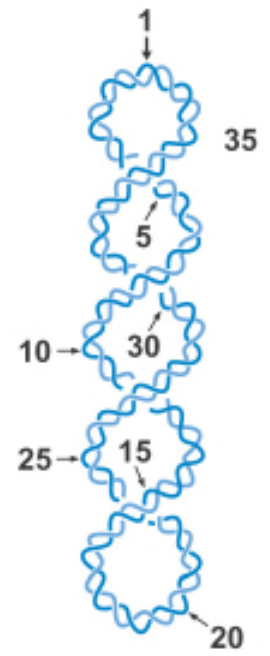






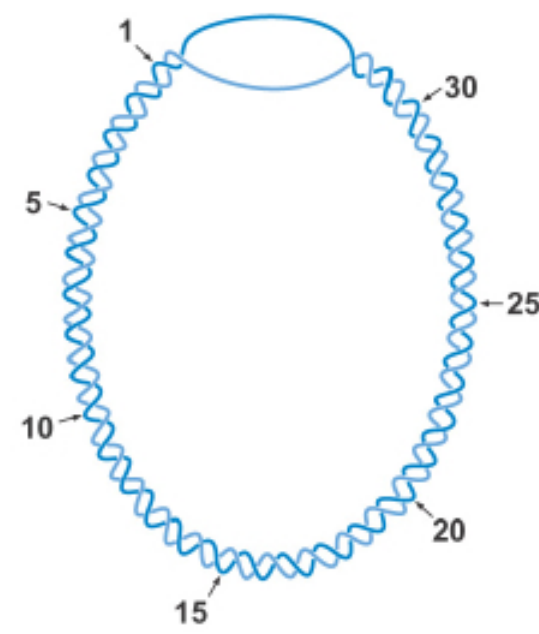
bp: 360
<i>Lk</i> : 36
<i>Tw</i> : 36
<i>Wr</i> : 0

topoisomerase



bp: 360
<i>Lk</i> : 32
<i>Tw</i> : 36
<i>Wr</i> : -4

↔



bp: 360
<i>Lk</i> : 32
<i>Tw</i> : 32
<i>Wr</i> : 0