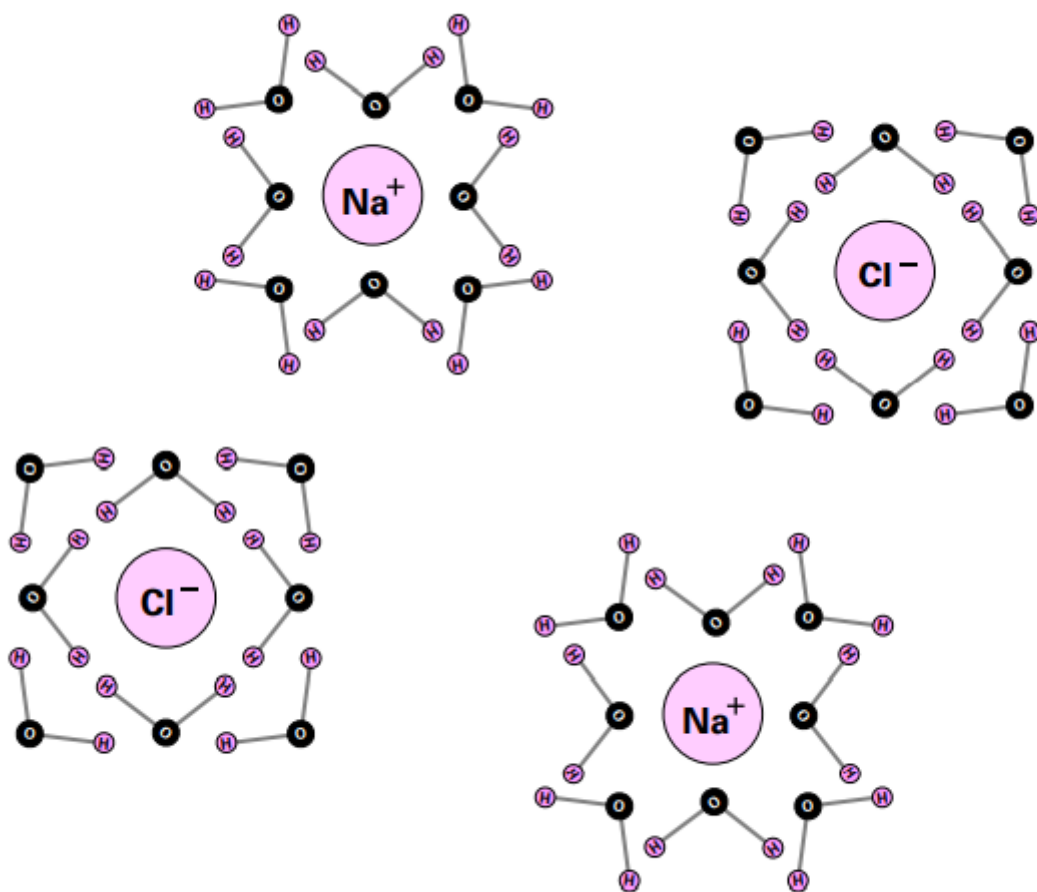
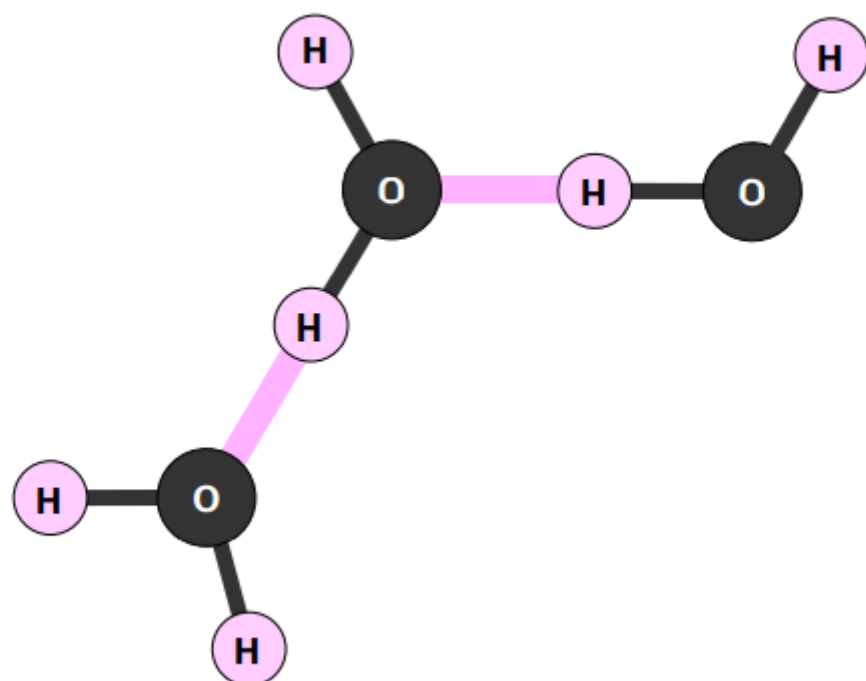


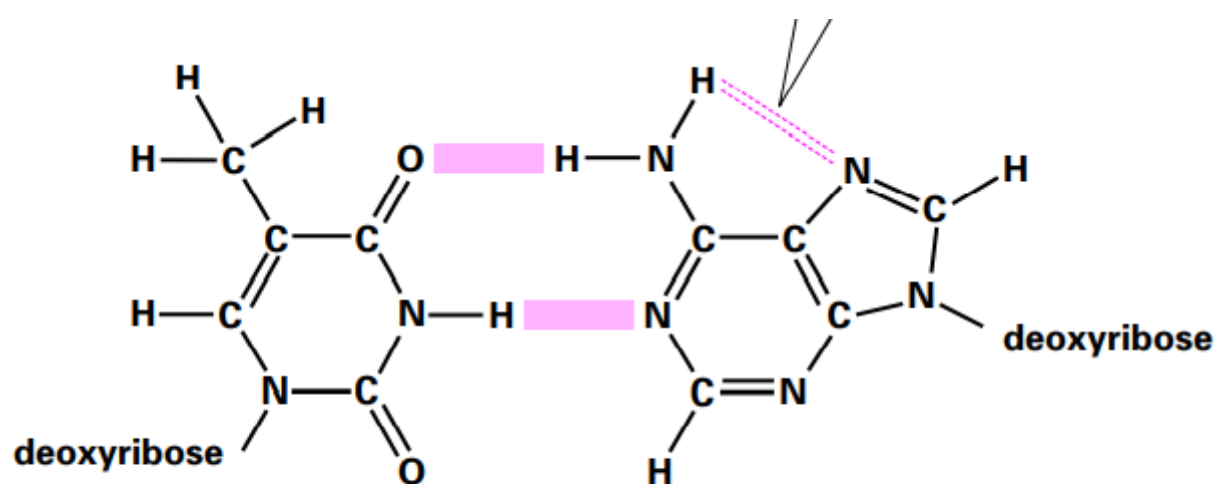
(a)



(b)



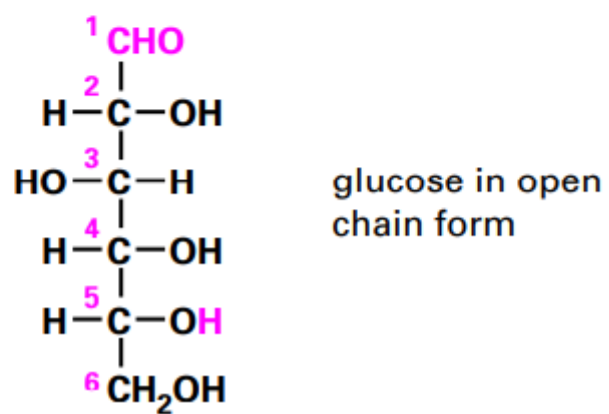
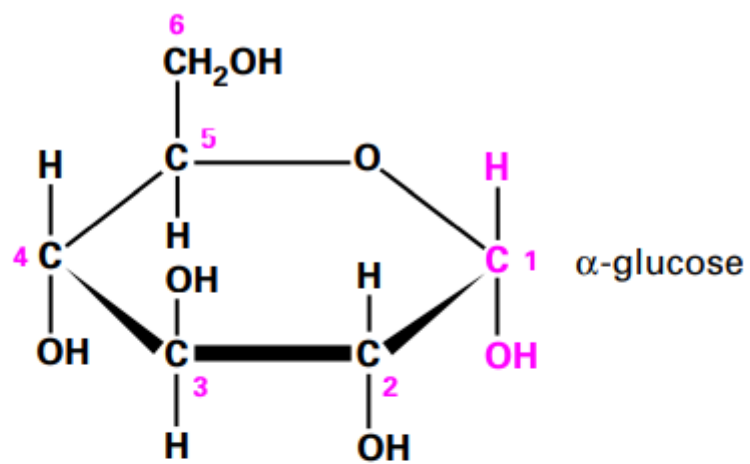
(a)

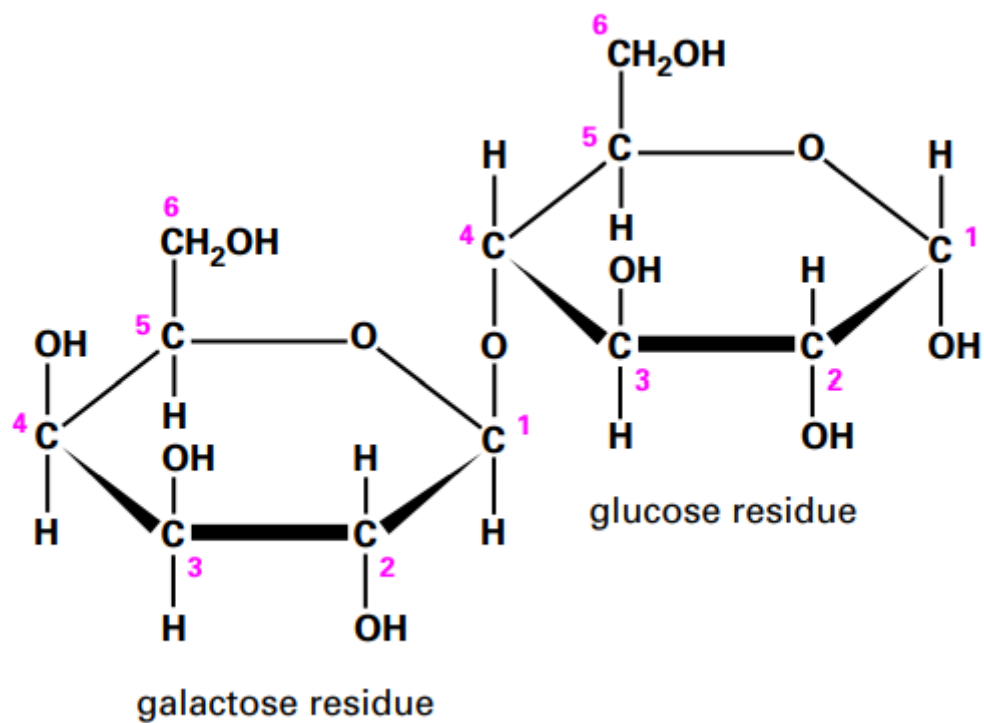
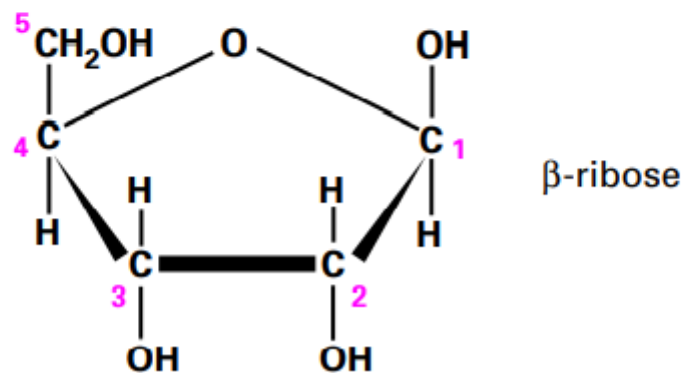
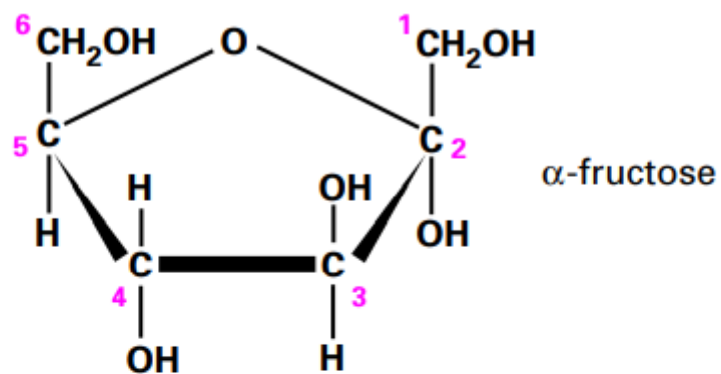


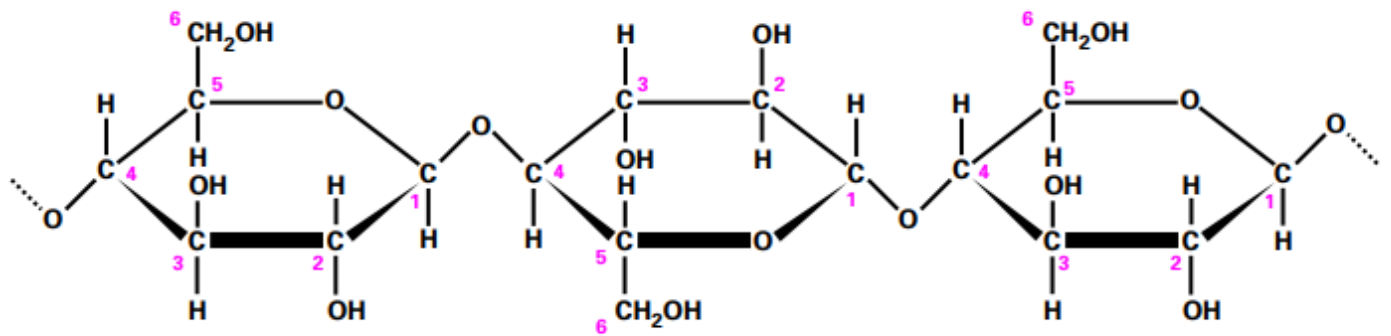
thymine (T)

adenine (A)

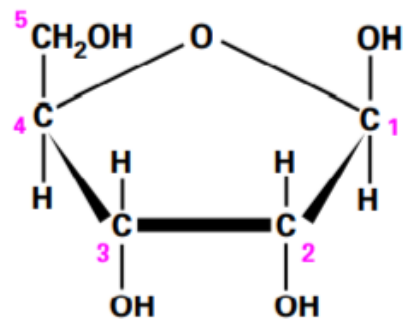
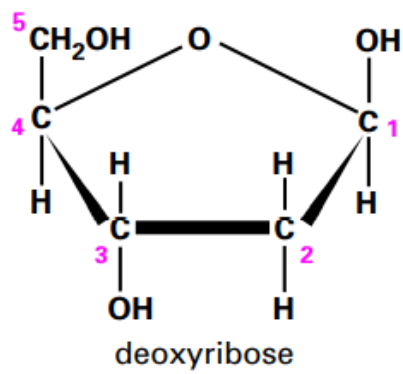
(b)



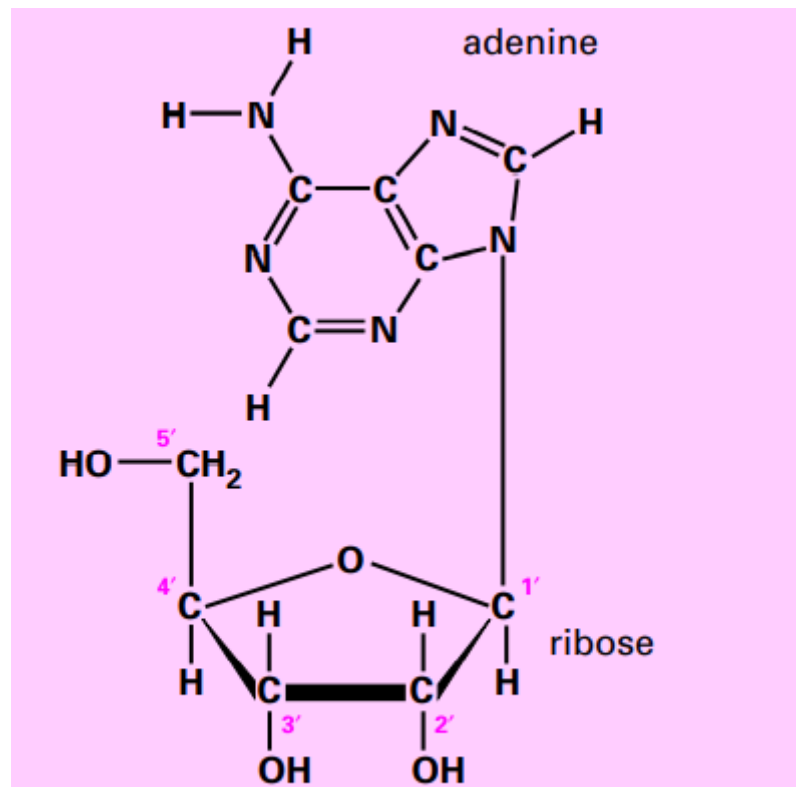




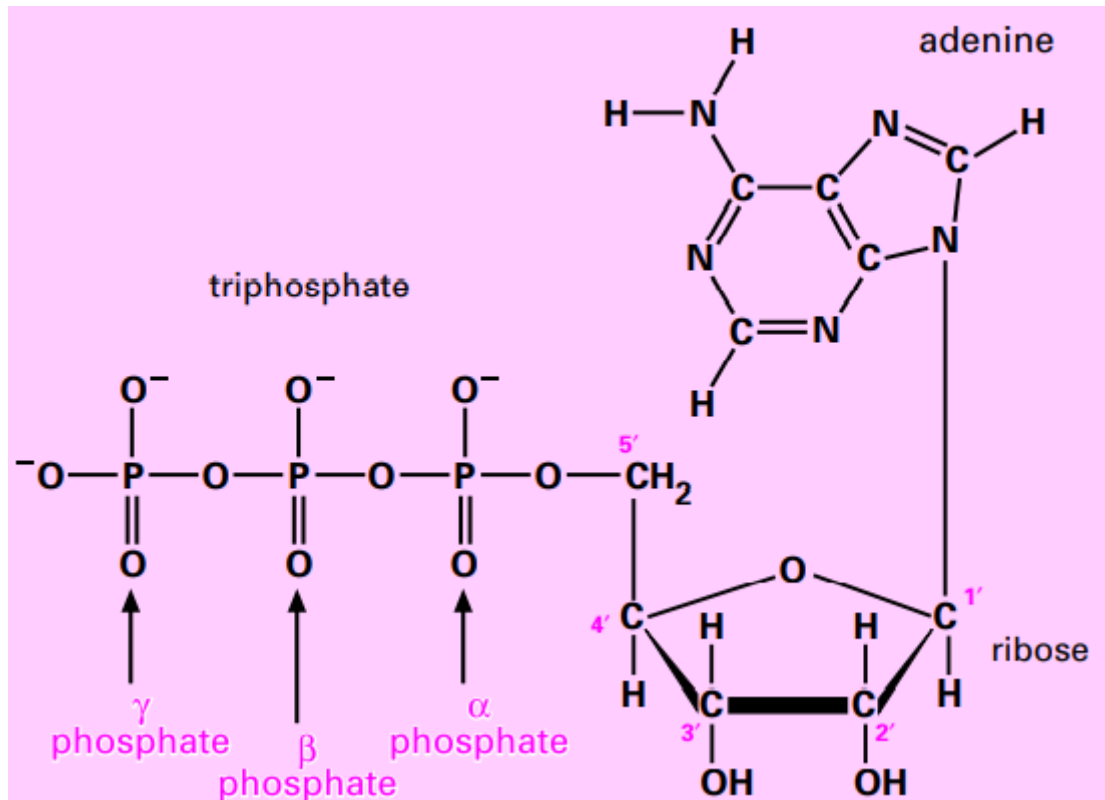
(b) cellulose



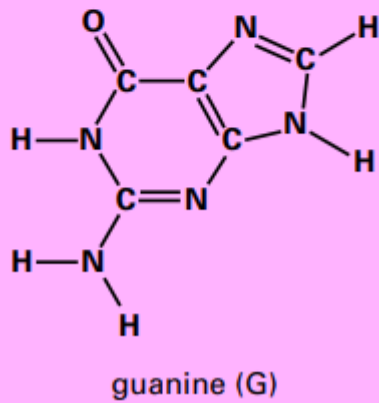
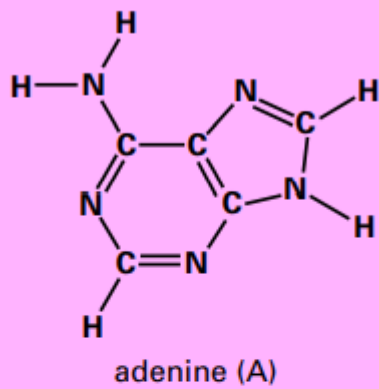
β -ribose



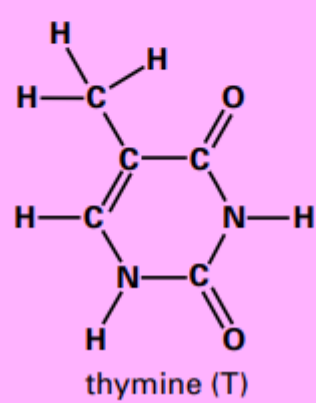
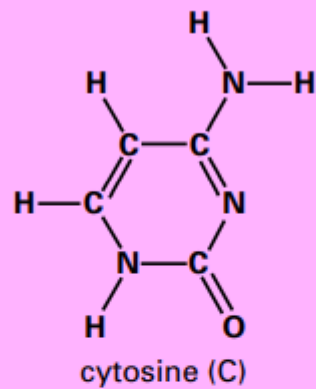
(a) adenosine, a nucleoside

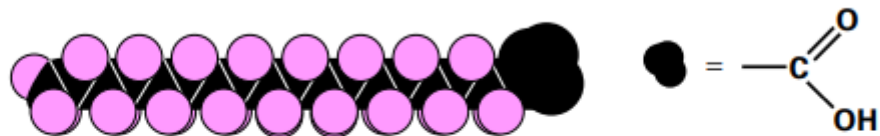
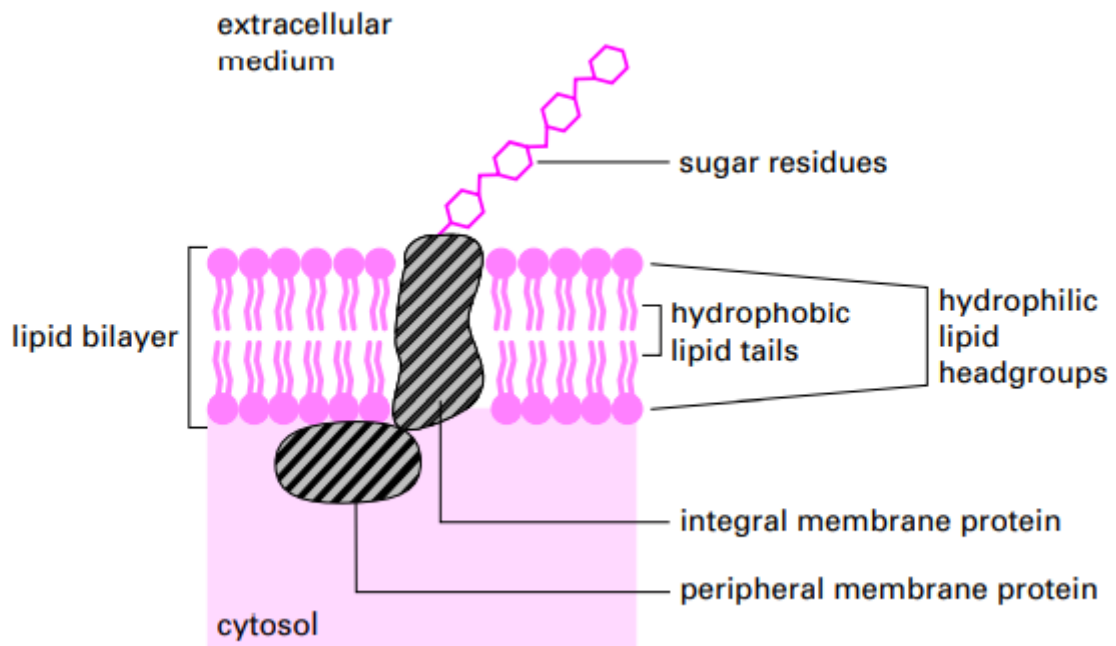


purines



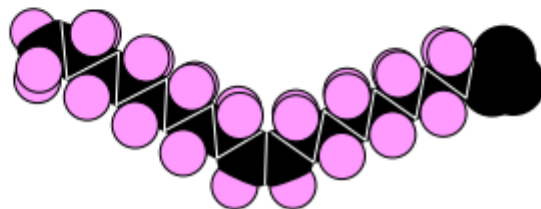
pyrimidines





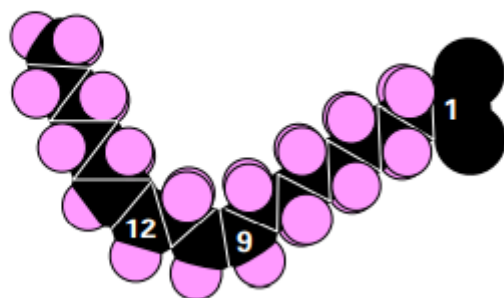
Stearic acid, C18 no double bonds, melts at 69.6°

(a)

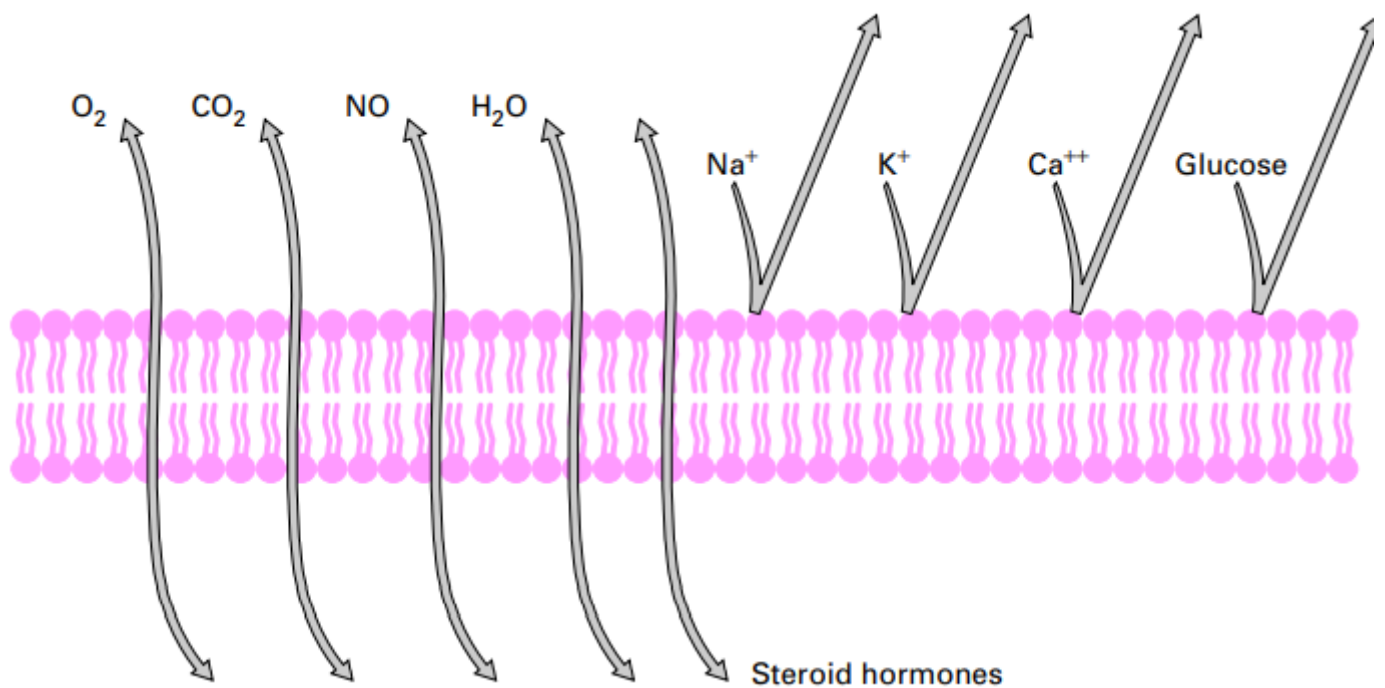
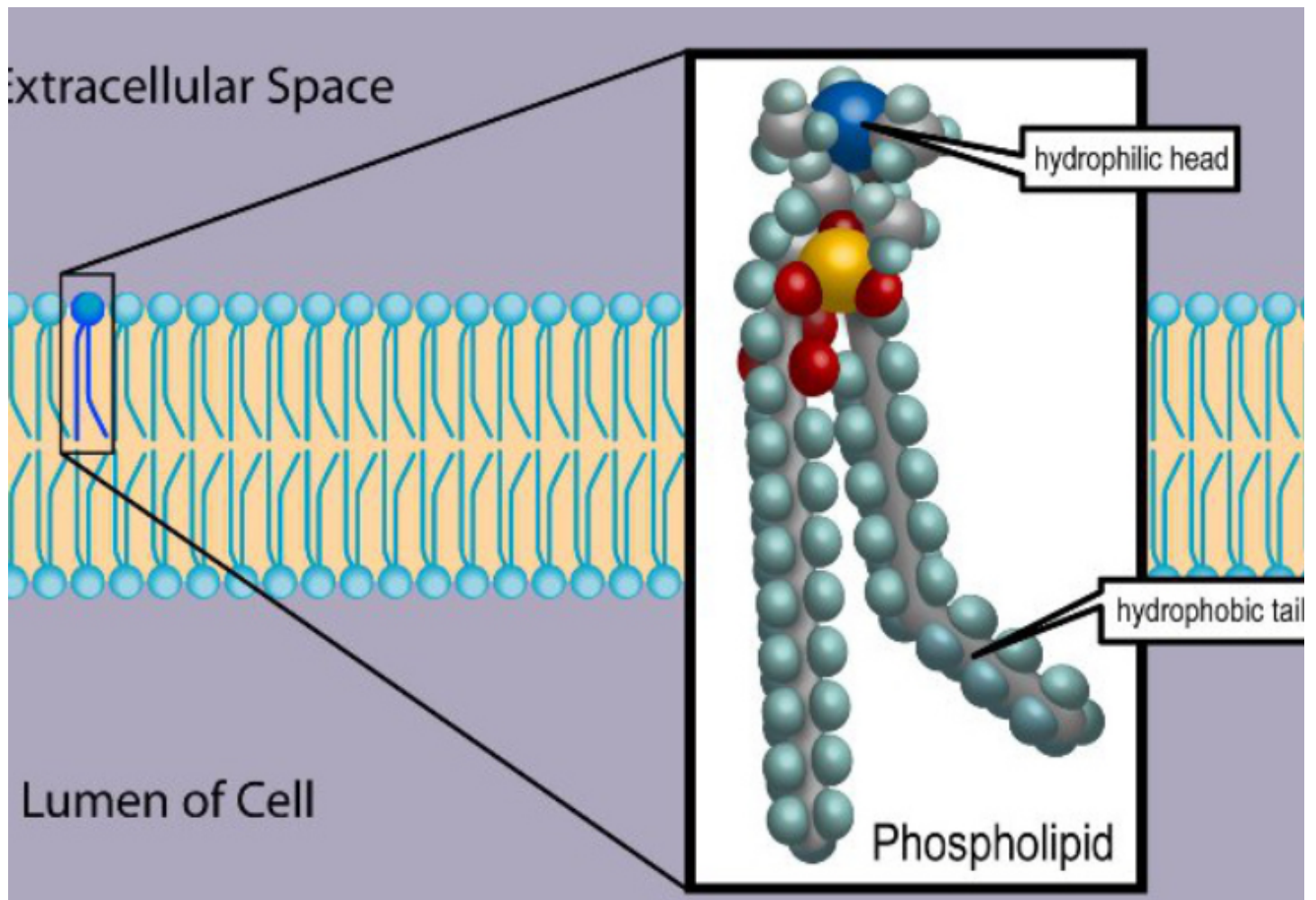


Oleic acid, C18 one double bond, melts at 13.4°

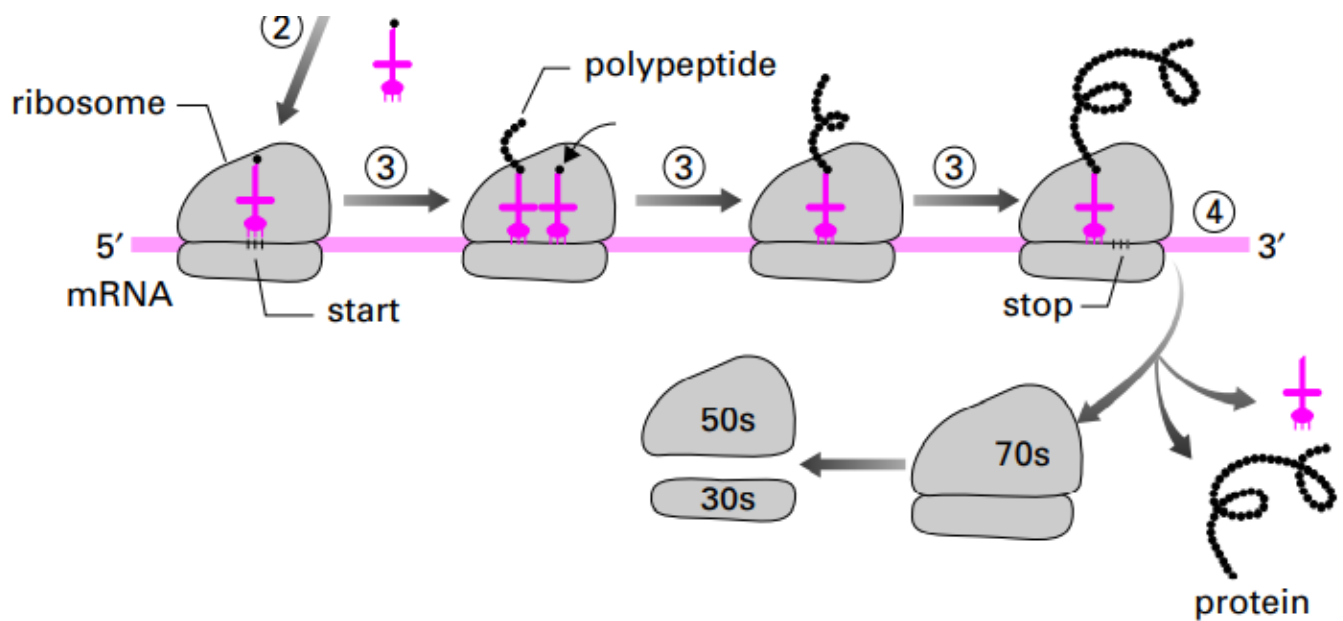
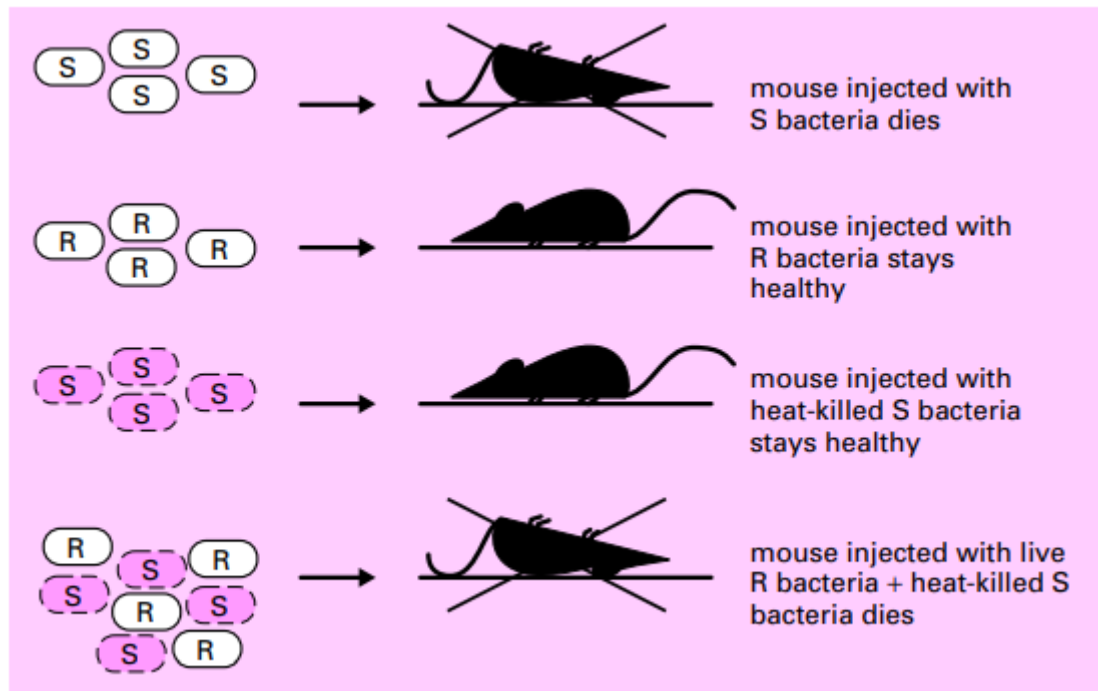
(b)



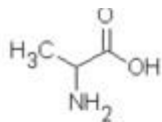
Linoleic acid, C18 two double bonds, melts at -9°



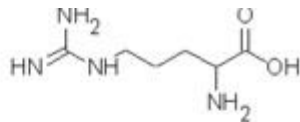
Oswald Avery, Maclyn McCarty, and Colin MacLeod



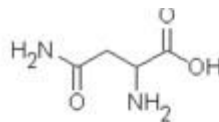
		Second Letter					
		T	C	A	G		
First Letter	T	TTT } Phe TTC } TTA } Leu TTG }	TCT } TCC } Ser TCA } TCG }	TAT } Tyr TAC } TAA Stop TAG Stop	TGT } Cys TGC } TGA Stop TGG Trp	Third Letter	T C A G
	C	CTT } CTC } Leu CTA } CTG }	CCT } CCC } Pro CCA } CCG }	CAT } His CAC } CAA Gln CAG }	CGT } CGC } Arg CGA } CGG }		T C A G
	A	ATT } ATC } Ile ATA } ATG Met	ACT } ACC } Thr ACA } ACG }	AAT } Asn AAC } AAA Lys AAG }	AGT } Ser AGC } AGA Arg AGG }		T C A G
	G	GTT } GTC } Val GTA } GTG }	GCT } GCC } Ala GCA } GCG }	GAT } Asp GAC } GAA Glu GAG }	GGT } GGC } Gly GGA } GGG }		T C A G



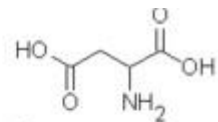
Alanina (Ala)



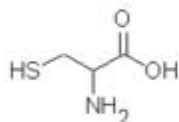
Arginina (Arg)



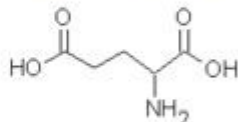
Aspargina (Asn)



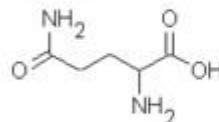
Àcid aspàrtic (Asp)



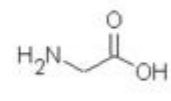
Cisteina (Cys)



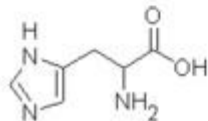
Àcid glutàmic (Glu)



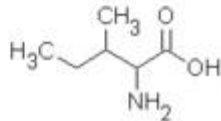
Glutamina (Gln)



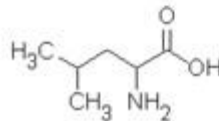
Glicina (Gly)



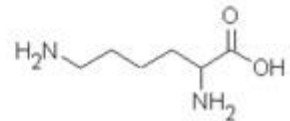
Histidina (His)



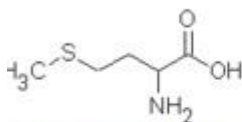
Isoleucina (Ile)



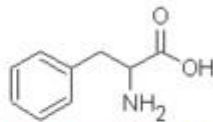
Leucina (Leu)



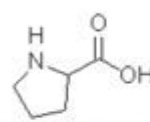
Lisina (Lys)



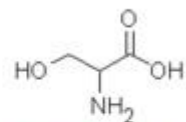
Metionina (Met)



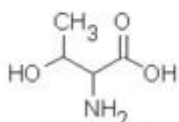
Fenialanina (Phe)



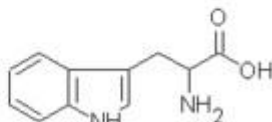
Prolina (Pro)



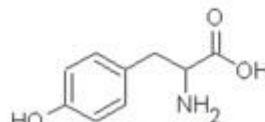
Serina (Ser)



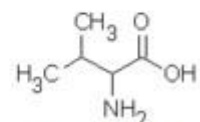
Treonina (Thr)



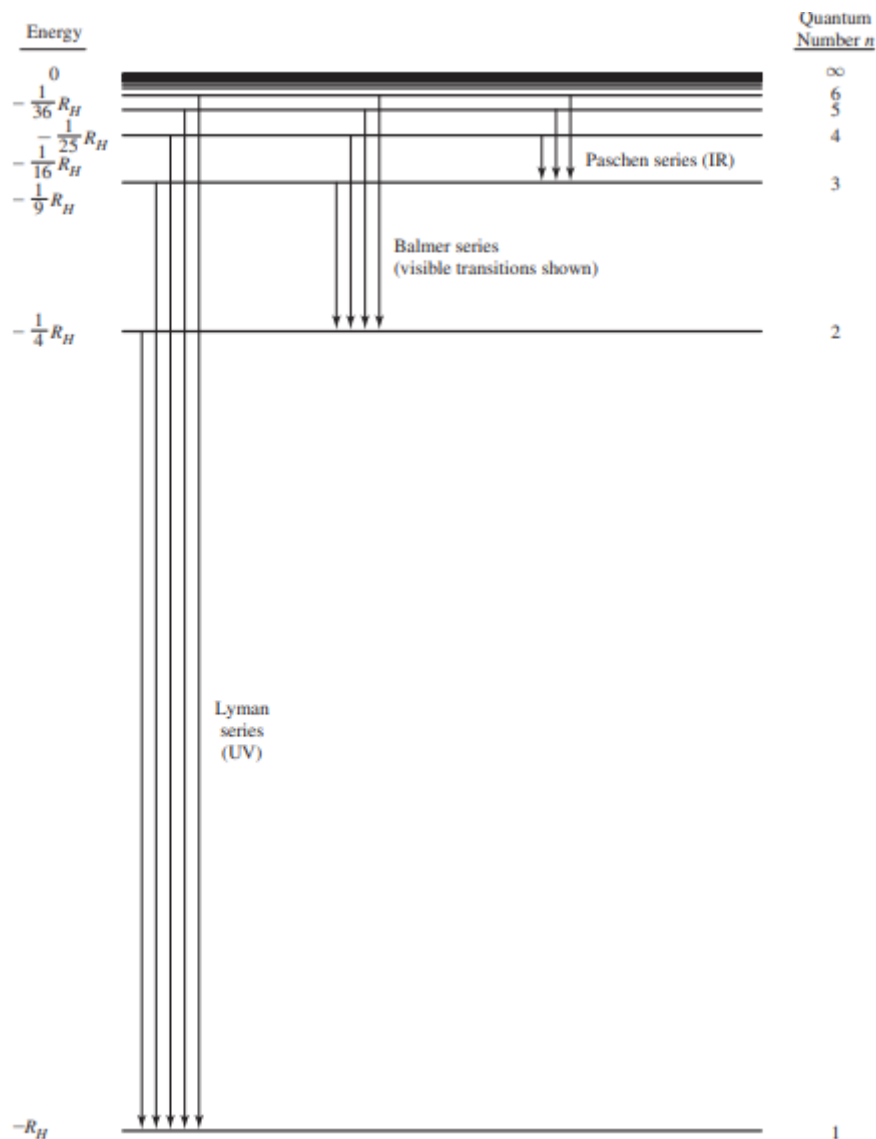
Triptòfan (Trp)



Tirosina (Tyr)



Valina (Val)



Groups (IUPAC)

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

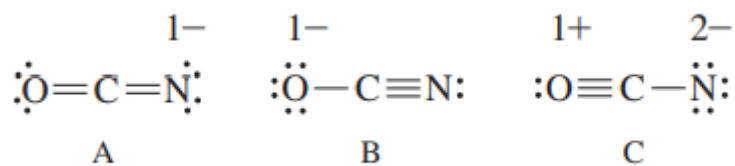
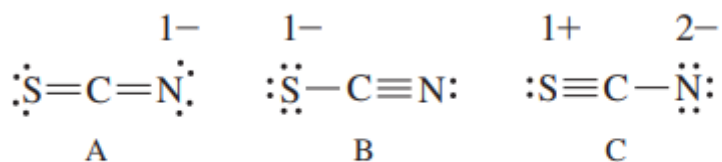
(US traditional)

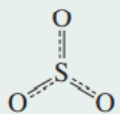
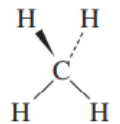
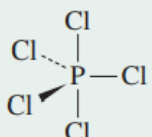
IA IIA IIIB IVB VB VIB VIIIB VIIIB IB IIB IIIA IVA VA VIA VIIA VIIIA

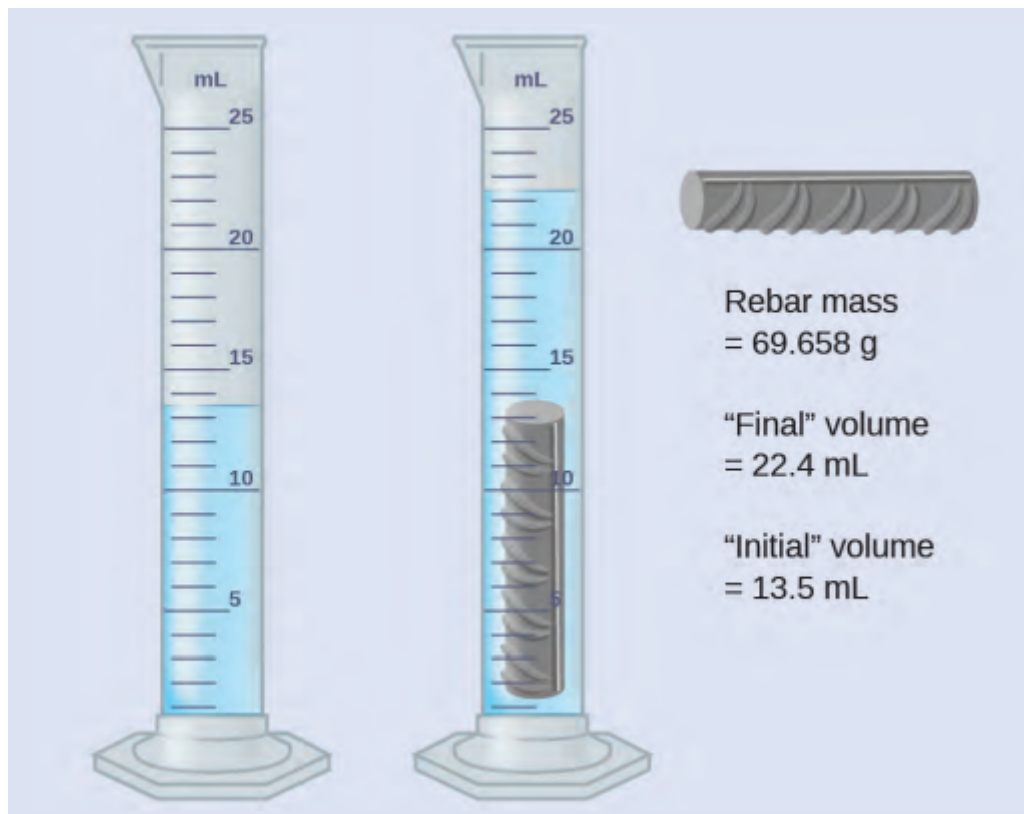
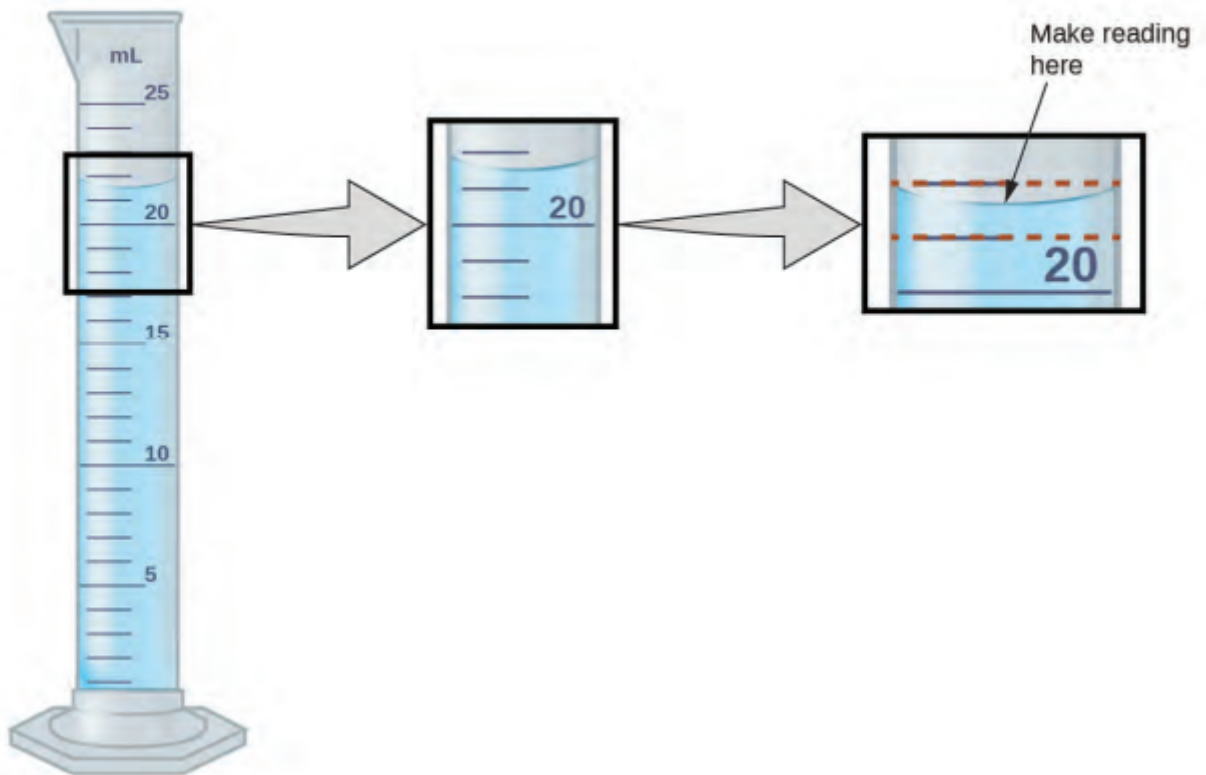
1s																	1s
2s	2s											2p	2p	2p	2p	2p	2p
3s	3s											3p	3p	3p	3p	3p	3p
4s	4s	3d		3d	3d	3d	3d	3d	3d	3d	3d	4p	4p	4p	4p	4p	4p
5s	5s	4d		4d	4d	4d	4d	4d	4d	4d	4d	5p	5p	5p	5p	5p	5p
6s	6s	5d	*	5d	5d	5d	5d	5d	5d	5d	5d	6p	6p	6p	6p	6p	6p
7s	7s	6d	**	6d	6d	6d	6d	6d	6d	6d	6d						

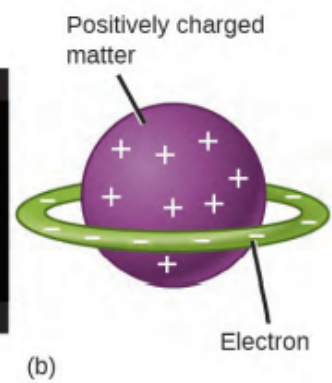
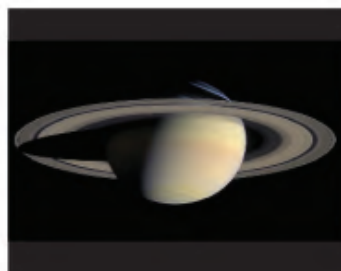
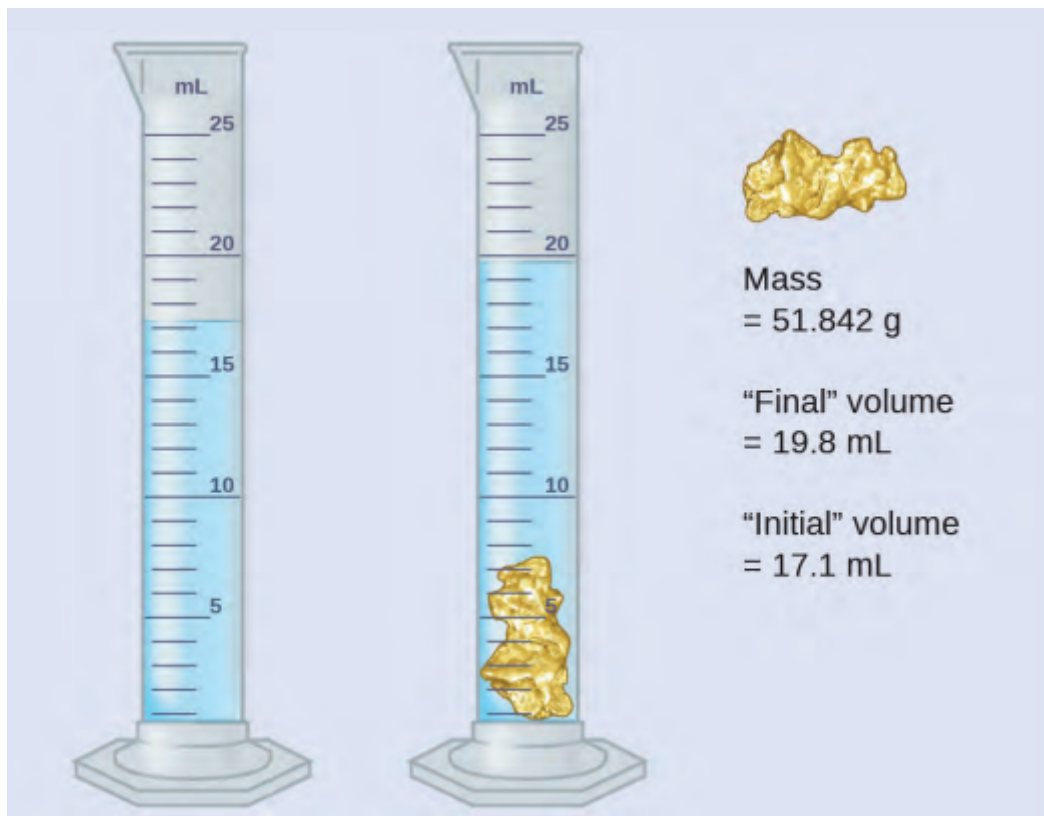
*	4f	4f	4f	4f	4f	4f	4f	4f	4f	4f	4f	4f	4f	4f
**	5f	5f	5f	5f	5f	5f	5f	5f	5f	5f	5f	5f	5f	5f

s block p block d block f block



Steric Number	Geometry	Examples	Calculated Bond Angles	
2	Linear	CO ₂	180°	O=C=O
3	Trigonal (triangular)	SO ₃	120°	
4	Tetrahedral	CH ₄	109.5°	
5	Trigonal bipyramidal	PCl ₅	120°, 90°	





Periodic Table of the Elements																	
Group 1	Main group elements																18
	2											13	14	15	16	17	
Alkali metals	Alkaline earth metals	3	4	5	6	7	8	9	10	11	12			Pnictogens	Chalcogens	Halogens	Noble gases
Transition metals																	
<div><div></div><div>Lanthanides</div><div>Actinides</div></div>																	

