

Mutations -

1. Gene
2. Chromosome

→ point mutations
- substitution

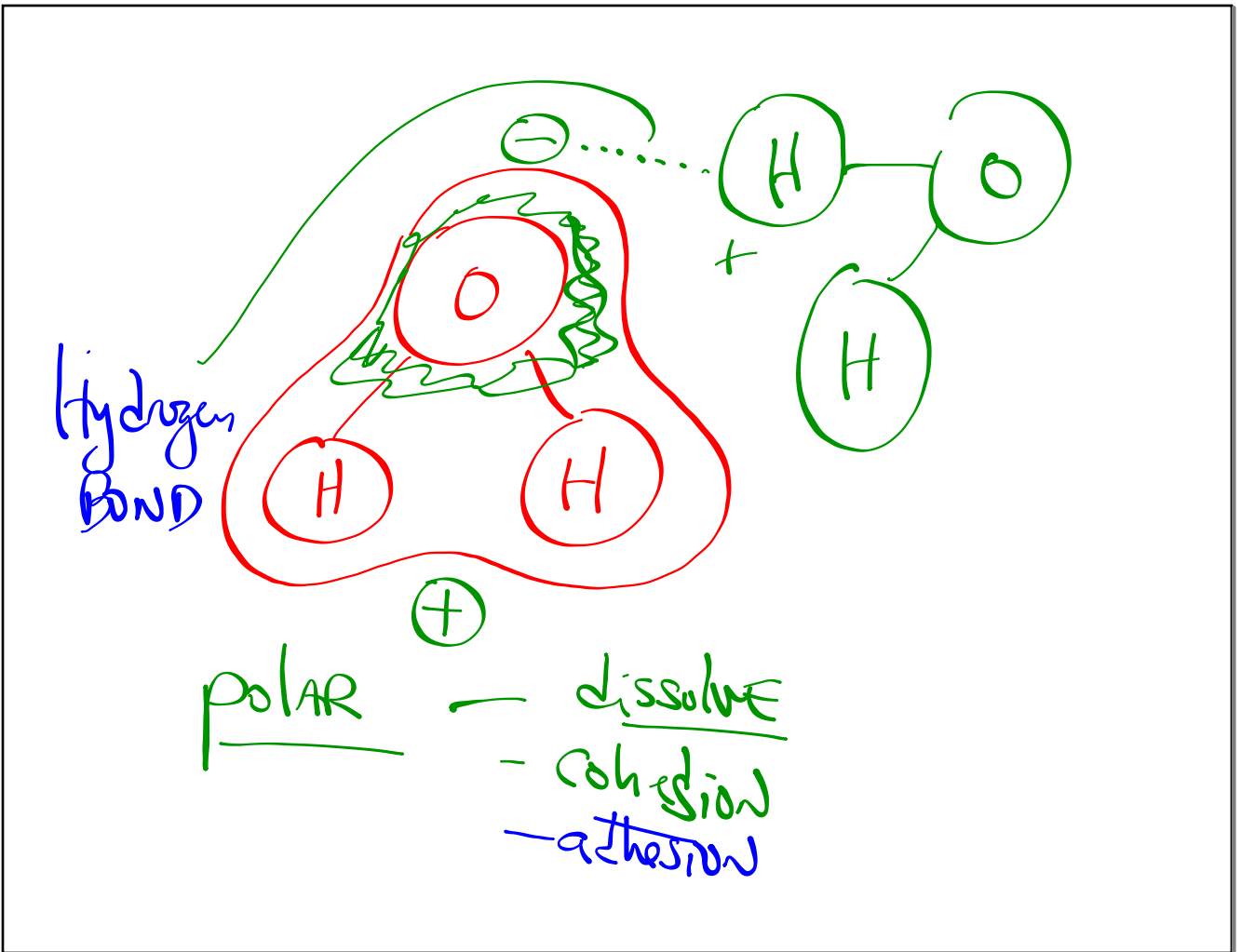
THE FAT CAT ATE THE RAT

- frameshift

- deletion, duplication

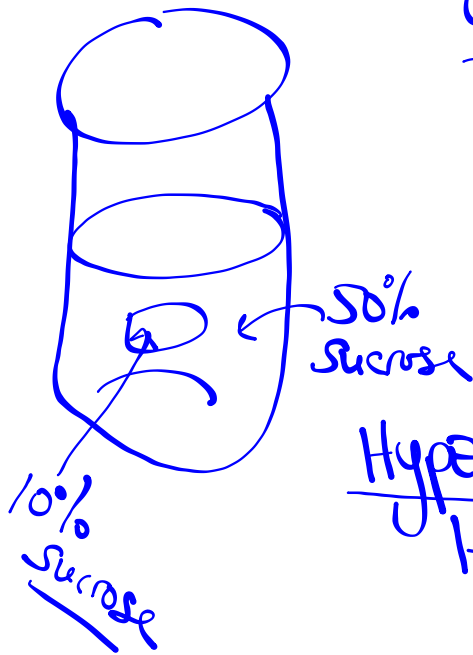
THE ~~F~~AT ~~C~~AT ATE ~~T~~HE RAT

THE FTC ATA TET HER AT

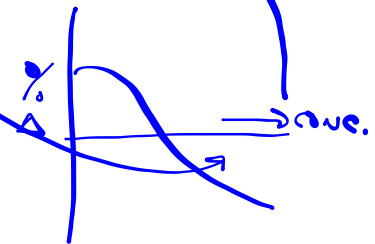


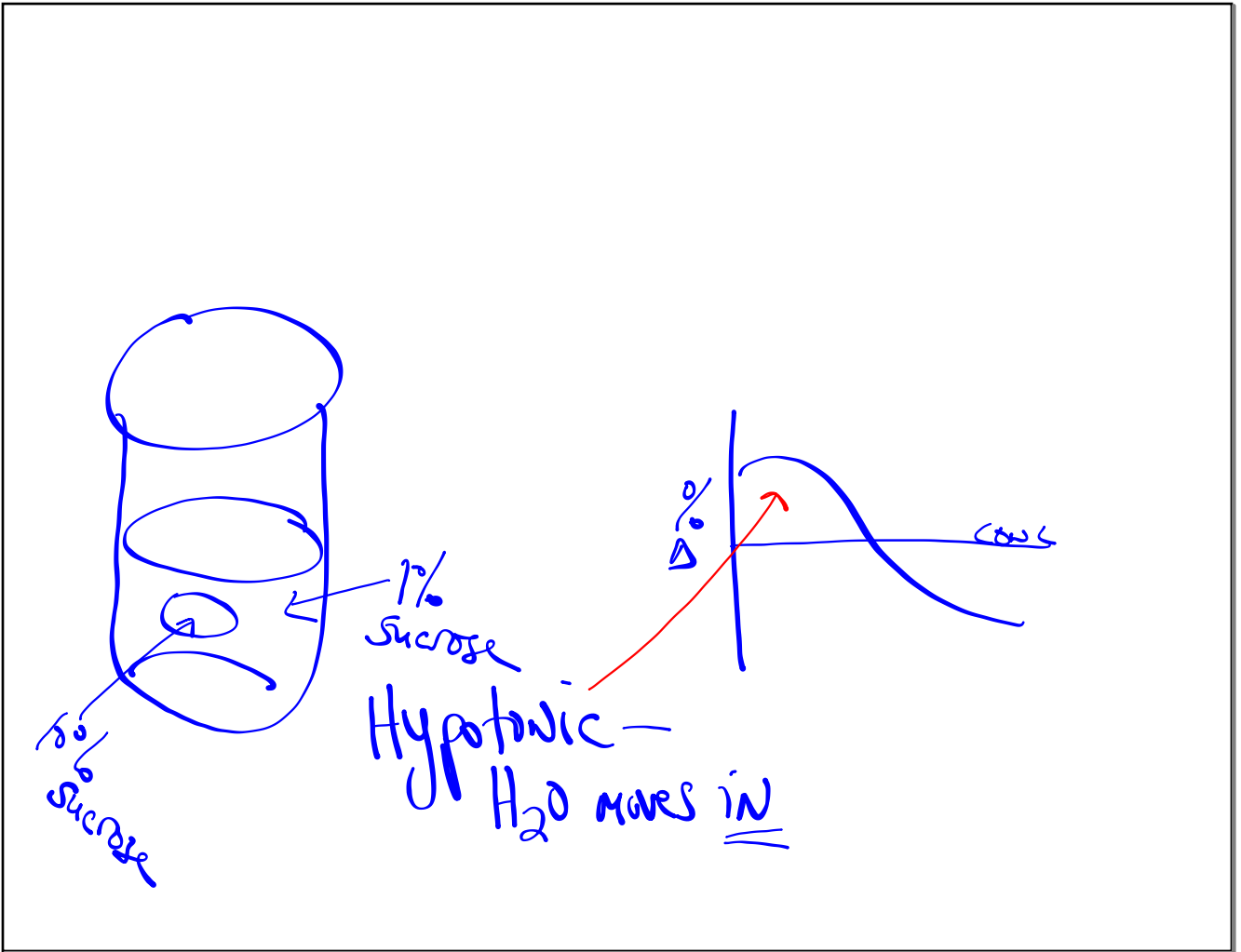
Osmosis - diffusion of H_2O , solvent

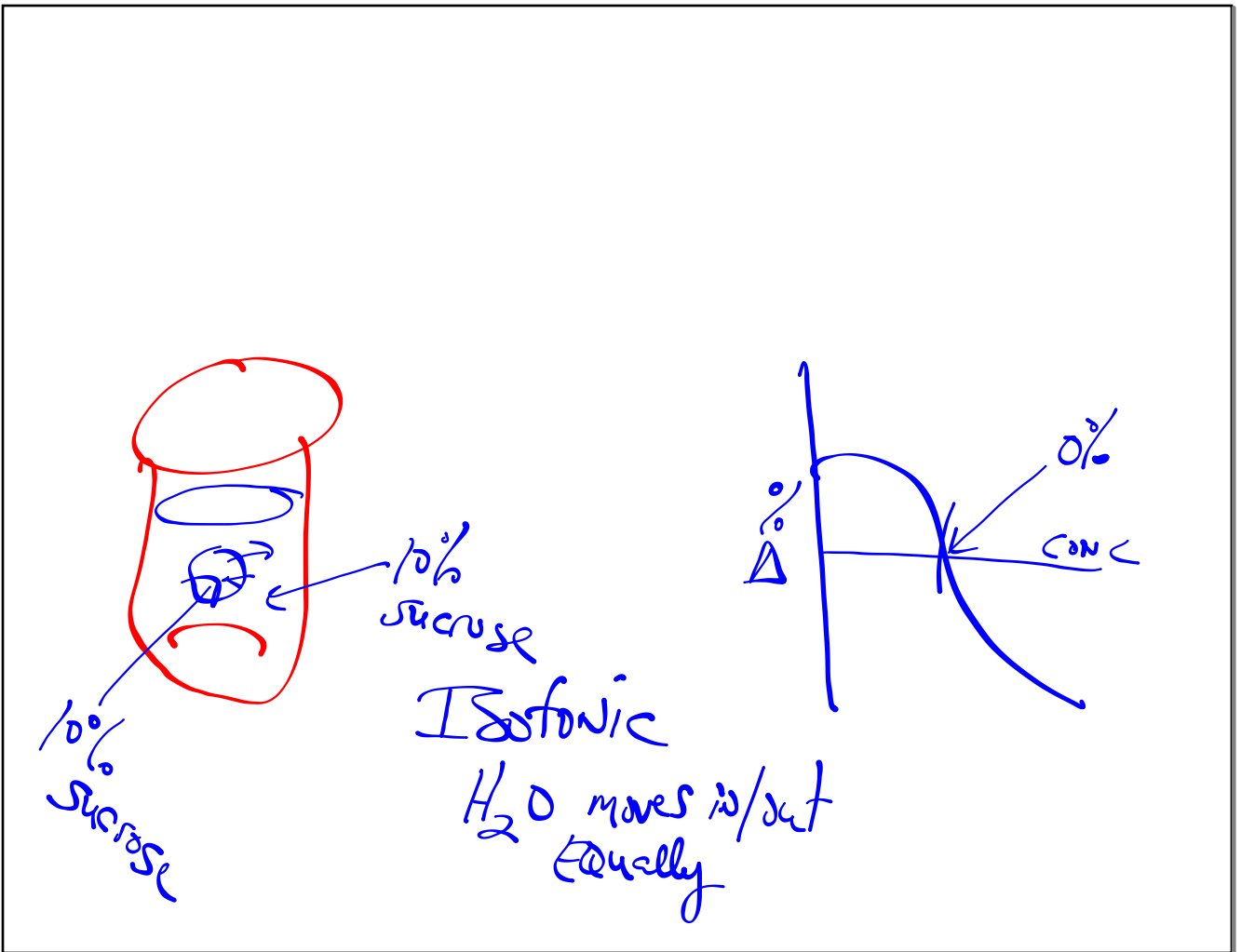
* conc. of solute in environment



Hypertonic
 H_2O moves out



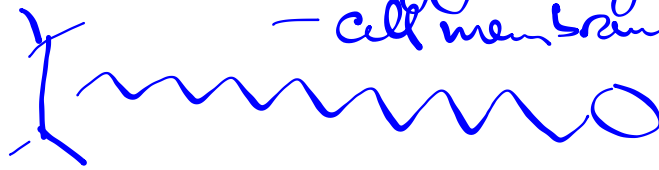
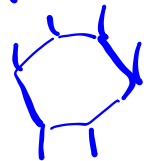




Bio. molecules -

1. carbohydrates - quick energy source, etc.

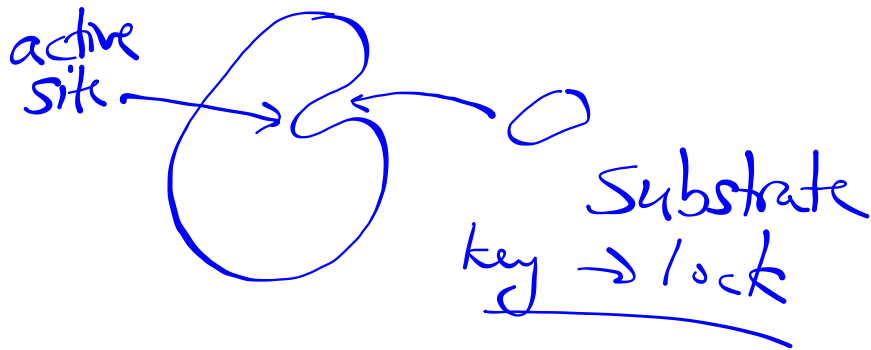
2. Lipids - long term energy storage
- cell membrane



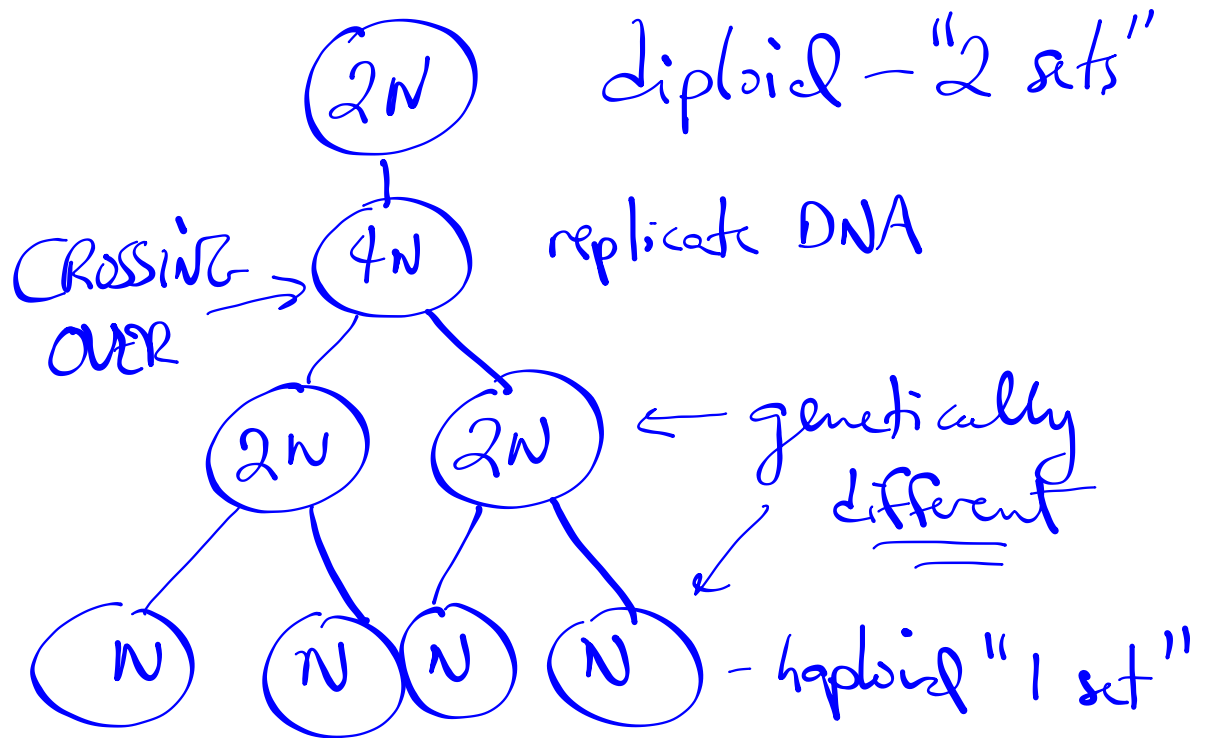
3. proteins - amino acids
- control chem RXNS -
- structural, etc.

4. nucleic acid - nucleotides
- store hereditary info.

Enzyme -
globular proteins - catalyze
RXNS.



MEIOSIS - creates gametes



P: $TT \times tt$

F₁: $Tt \times Tt$

F₂

	T	t
T	TT	Tt
t	Tt	tt

genotype ratio:

1:2:1

phenotype ratio:

3:1

$RrYy \times RrYy$

	RY	Ry	rY	ry
RY	$RRYY$	$RRYy$	$RrYY$	$RrYr$
Ry	$RrYy$	$RRyy$	$RrYr$	$Rryy$
rY	$RrYy$	$RrYy$	$rrYY$	$rrYr$
ry	$RrYr$	$Rryy$	$rrYr$	$rryy$

phenotype ratio: $9:3:3:1$