PROKARYOTIC EUKARYOTIC	
Prokaryotic *unicellular*	*pro* means before and *karyon* means nut or kernel-(nucleus)
Eukaryotic *multicellular*	*eu* means true
Prokaryotic	first and oldest type of cell
three--domain system	archaea, bacteria eukarya
Eukaryotic organism can be	protist, fungus a plant or an animal
differences in organelles	
prokaryotic cells	no membrane-bound organelles
eukaryotic	membrane-bound organelles
genetic material	
prokaryotic cells	short, circular DNA *has no introns or exons*
eukaryotic cells	long, linear DNA *has introns or exons*
ribosomes	
prokaryotic	smaller ribosomes *70s*
eukaryotic	larger ribosomes *80s*
sizes and complexity	
prokaryotic	smaller and less complex
eukaryotic	larger and more complex
reproduction	
prokaryotic	asexual
eukaryotic	sexual

cells first part	
THREE DOMAINS OF LIFE	bacteria archaea and eukarya
Eukarya includes	protista plantae fungi animalia
prokaryotic cells parts and terms	
pili	used for transfer of DNA from one bacterium to anotehr
fimbriae	adhering cells to surface
nucleoid region	contains its genetic material in a form of DNA (*short double-stranded, circular loop*)
Plasmids	antibacterial resistance
flagella or flagellum	allows locomotion
plasma membrane	semi permeable membrane
cell wall	maintains the shape
capsule	protective layer
cytoplasm	water, nutrients, etc.
ribosomes	rRNA and proteins smaller (70S0
Svedberg (S)	unit of rate of settling down of particles on a particular medium.
PROKARYOTIC CELL REPRODUCTION	asexual reproduction through a process knows as **binary fission**
EUKARYOTIC CELLS	
centriole	produce spindle fibers that aid in chromosome movement

cells first part (cont)	
plasmo-desmata	holes in the cell wall that allow the communication and transportation of materials(plants)
asexual reproduction	
budding	new organism develops
fragmentation	a piece of the body or
vegetative	new plants are produced from root....
sexual reproduction	when the sperm from the male parent fertilizes an egg from the female parent...
*THREE MAIN FORM OF BACTERIAL SEXUAL REPRODUCTION**	
conjugation	one bacterium transfers genetic mat to another through **direct contact**
transformation	type of prokaryotic rep in which a prokaryote can take up DNA found within the environment that has originated from other prokaryotes
transduction	genetic recombination in bacteria in which genes from a hostcell are incorporated in to the genome of a bacterial virus and then carried to another host
transfection	electrical shock

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part 2	
common features of pro and eukaryotic	plasma membrane cytoplasm DNA nucleoid region Nucleus ribosomes
TERMS	
organelles	enable the cell to live grow and reproduce
cell membrane	outer later of cell ; allow nutrients in to the cell and wastes outside of the cell *gate in to the city*
cytoplasm	jelly like fluid contained in the cell that holds the organelles
the nucleus	control center of the cell ; contains the cell's DNA *mayor's office*
Mitoch-ondria	power center ; provides the energy the cell needs; *electric company of the cell*
ribosomes	site where proteins are made ; cell parts are made of proteins *factories of the cell*

part 2 (cont)	
endopl-asmic reticulum	transportation system ; rough ER-ribosomes attached smooth ER_no ribosomes's *roadways of the cells*
golgi complex	packaging house of cells *UPS of the cell*
lysosomes	digest food particles and cells parts ; protects cell *garbage and police men*
vauole	largest organelle in plants cell ; stores water food and wastes
cell wall	found only in plant cells ; protects ad supports the cell
chrolo-plasts	found only in plants cells where photosynthesis takes place

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