CRITICAL READING: CORNELL NOTES

Chapter: Section 7.1	Name: Kalinowski
	Date:
Section: Life is cellular	Period: 1st

Questions/Main Ideas/Vocabulary	Notes/Answers/Definitions/Examples/Sentences
	I. Discovery of Cell - basic unit of life
Key questions:	A. Robert Hooke - 1665 - Cmpd scope - named cell
• what is cell theory?	B. Anton van Leeuwenhoek - 1665 - single lens scope
• how do microscopes work?	1. observed living organisms in pond H_2O
• pro vs. eukaryotic?	C. M. Schleiden - 1838 - plants made of cells
	D. T. Schwann - 1839 - animals made of cells
Vocab	E. R. Virchow - 1855 - new cells only from existing cells
• cell	F. Cell Theory
• cell theory	1. All living things made of cells
• cell membrane	2. Cells are basic unit of structure + function
• nucleus	3. New cells produced from existing cells
• eukaryote	
• prokaryote	II. Exploring the Cell
	* Scopes use lenses - magnify images
Review Key Concepts	- use light or e⁻
	A. Light Microscopes
Answer key concept Questions Here	1. objective lens - above specimen } magnify
	2. ocular lens - in eyepiece }
	3. problems: max. 1000x
1a	a. Resolution/detail limited by light diffraction/scattering
b	b. Cells transparent - need stains/dyes - fluorescent dyes
	B. Electron scopes - use e⁻ beams
2a	1. benefits - greater mag. + ↑ resolution
b	2. problems: only see nonliving cells/tissues
	3. types
3a	a. transmission - great detail on molecules etc interior - flat + 2-D
b	b. Scanning - 3-D image surface
Practice Problems Here	4. Can be colorized
4.	III. Pro v Euk
5.	A. All Cells have: DNA - genetic info
	cell/plasma membrane - barrier thin, flexible

Summary: This section discusses 3 points of cell theory + the history of its discovery, Microscope development & characteristics & compares pro + eukaryotic cells

Pro	vs	Euk
DNA not in nucleus		DNA in nucleus
example: bacteria		internal membranes
		larger
		more complex
		great variety

Both carry out life activities