	Name:	Period:	Date:
	CHAPTER 4: LIGHT AND THE DEVE	LOPMENT OF A NE	W ATOMIC MODEL
comp	w all directions on this page, discussing weleting individual reading and notes wher eginning of class.	•	
1.	With your table mates, use a list, sketch already know about "light" and "electronic light" are the electronic light and "electronic light" and "electronic light" are the electronic light and "electronic light" are the ele	-	to write down what you
-	LIGHT	EI	LECTRONS
	textbook (you may have to share with o to read any further than this. As you rea		
need		d this section, take n	
need belov	to read any further than this. As you rea	d this section, take no u are reading.	otes on the concepts listed
need belov 2.	to read any further than this. As you rea v or answer the questions about what yo	d this section, take not use are reading. I the electromagnetic is	otes on the concepts listed spectrum?

5.	Draw a diagram in the space below to explain what wavelength and frequency are. Include what symbols are used to represent these variables.
6.	How does speed of light, wavelength, and frequency relate (there is an equation that relates them all!)?
7.	What is the photoelectric effect (feel free to look this up on a smartphone and draw a diagram)?
8.	What couldn't scientists explain about the photoelectric effect? In other words, what had they predicted would make the photoelectric effect work and what did they observe actually made it work?
9.	What is a quantum? Who suggested the idea of a quantum?
10.	What equation did Planck propose that related energy and frequency of a wave?
11.	What is Planck's constant?
12.	How did Einstein expand on Planck's original ideas? How did his equation differ from Planck's?

Review Questions:

1.	What was the major shortcoming of Rutherford's model of the atom?
2.	Write and label the equation that relates the speed, wavelength, and frequency of electromagnetic radiation?
3.	What is meant by the dual wave-particle nature of light?

If you finish all this, please see the substitute and get the supplemental reading on Light and Bohr's Model of the Atom and read it with a partner. Take additional notes on this page that support the reading and notes you took from the textbook.