

Topic: Modern Model of Atom	Name:	Date:
Questions/Main Ideas:	Notes:	
What ideas are the modern model of the atom based on?	The modern model is based on many ideas, two of which are:	
	1. Electrons behave as both _____ and _____ as demonstrated by the _____.	
	2. _____ uncertainty principle: it is _____ to <i>determine</i> simultaneously both the _____ & _____ of an electron or any other particle with any great degree of certainty.	
What does the double slit experiment show us?	Summary:	
How are electrons organized in the atom?	1. Energy levels	
	a. Represented with the _____ quantum number (n = 1, 2, etc.)	
	b. n = 1 = _____ energy, _____ to nucleus	
	c. n = 7 = _____ energy, _____ from nucleus	
	d. Each energy level overlaps the next, kind of like a _____.	
	2. Orbitals	
	a. Region in the electron cloud where an electron is _____ to be located.	
	b. Known by the _____ quantum number (_____ , _____ , _____)	
	c. Do not confuse with _____. The electrons are _____ “orbiting” the nucleus. We cannot predict the actual location of an electron like we can predict planets orbiting the sun!	
	d. Different orbital shapes: s, p, d, f (_____ to _____ energy) location of an electron like we can predict planets orbiting the sun!	
	e. Different orbital shapes: s, p, d, f (_____ to _____ energy)	
	f. s has _____ orientations and can hold _____ electrons max.	
	p has _____ orientations and can hold _____ electrons max.	
	d has _____ orientations and can hold _____ electrons max.	
	f has _____ orientations and can hold _____ electrons max.	
Summary and Question(s) I have:		