

Name: _____

date: _____

period: _____

Ch. 2 atomic structure & periodic trend in ionization energy **test** 40 points

ngss chemistry

1. Fill-in the below table. [22 points]

symbol	# protons	# neutrons	# electrons	charge	Atomic mass
$^{140}\text{Ba}^{+2}$					
	13			0	27
			18	- 2	33
	19	21		+ 1	
$^{75}\text{As}^{-3}$					

2. Sketch / draw the Bohr model for the ____ atom; identify the core- and valence- electrons in your drawing / sketch; clearly write the number of protons / electrons in the nucleus / electron shell, respectively. [10 points]

a. Magnesium

b. Nitrogen

3. Which atom, ____, has the larger ionization energy ? basis / rationale of your answer ? Referring to the periodic trends is not a sufficient rationale. [8 points]

a. boron or carbon

b. chlorine or bromine