Parts of an Atom

Subatomic Particle	Charge	Mass	Location

Isotopes

TABLE 1.

Element Name	Symbol	Protons	Neutrons	Electrons
Hydrogen-1	^{1}H	**1**	**0**	**1**
Hydrogen-2	^{2}H	**1**	**1**	**1**
Hydrogen-3	^{3}H	**1**	**2**	**1**
Helium-3	^{3}He	**2**	**1**	**2**
Helium-4	^{4}He	**2**	**2**	**2**
Lithium-6	^{6}Li	**3**	**3**	**3**
Lithium-7	^{7}Li	**3**	**4**	**3**
Carbon-12	^{12}C	**6**	**6**	**6**
Carbon-13	^{13}C	**6**	**7**	**6**
Carbon-14	^{14}C	**6**	**8**	**6**

Use TABLE 1 to answer the following questions:

1. When looking at the hydrogen **(in purple)**, helium **(in red)**, lithium **(in blue)**, carbon **(in green),** what relationships do you notice?

   a) Relationship between name and symbol: _____

   _____

   b) Relationship between name/symbol and protons+neutrons: _____

   _____

   _____

Element – A collection of atoms that all have the same number of protons.

Isotopes – Two or more atoms of the same element that have different numbers of neutrons.

2. List the isotopes of hydrogen (element name): _____

3. List the isotopes of carbon (element name): _____