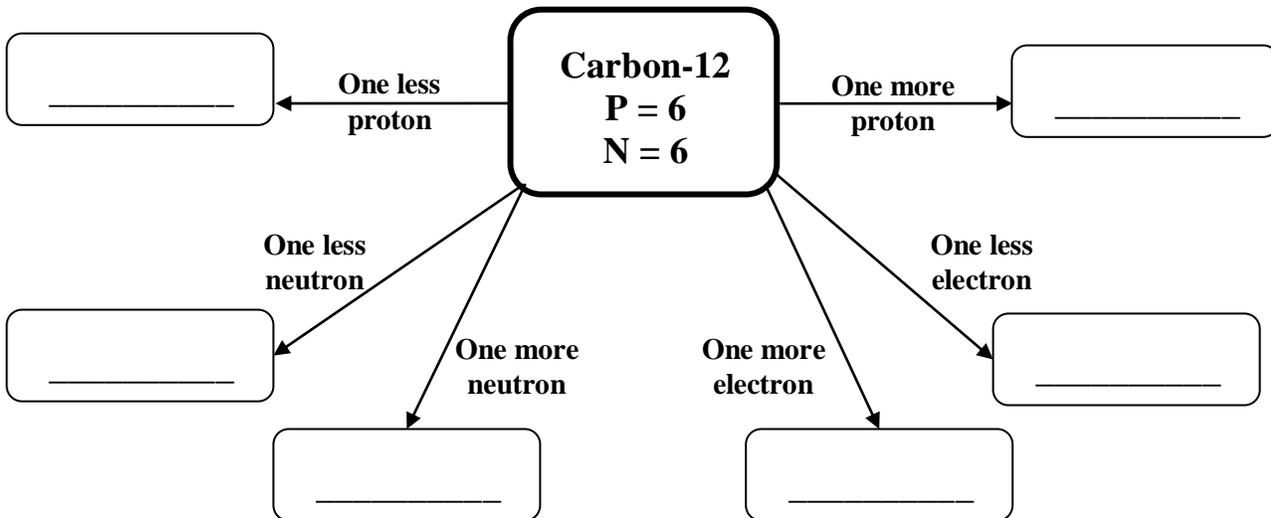


Atomic Changes

What happens to an atom if we lose or gain protons, neutrons, or electrons? Use the words in the word bank to complete this worksheet.

Anion (-)
Boron
Carbon-11
Carbon-13

Cation (+)
Ions
Isotopes
Nitrogen



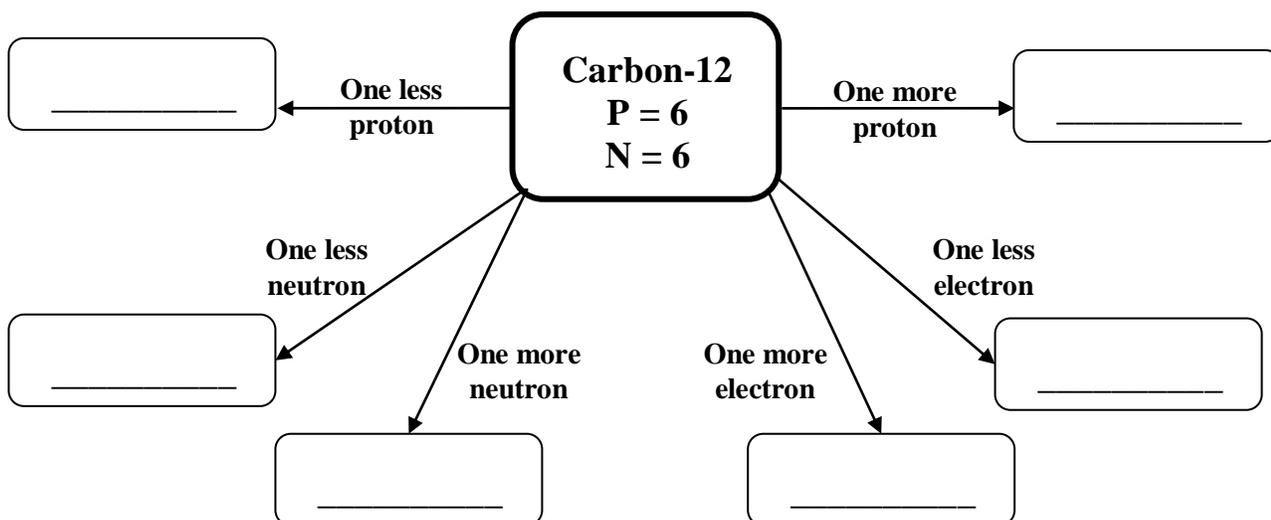
Atoms with different numbers of neutrons

Atoms that have lost or gained electrons

What happens to an atom if we lose or gain protons, neutrons, or electrons? Use the words in the word bank to complete this worksheet.

Anion (-)
Boron
Carbon-11
Carbon-13

Cation (+)
Ions
Isotopes
Nitrogen



Atoms with different numbers of neutrons

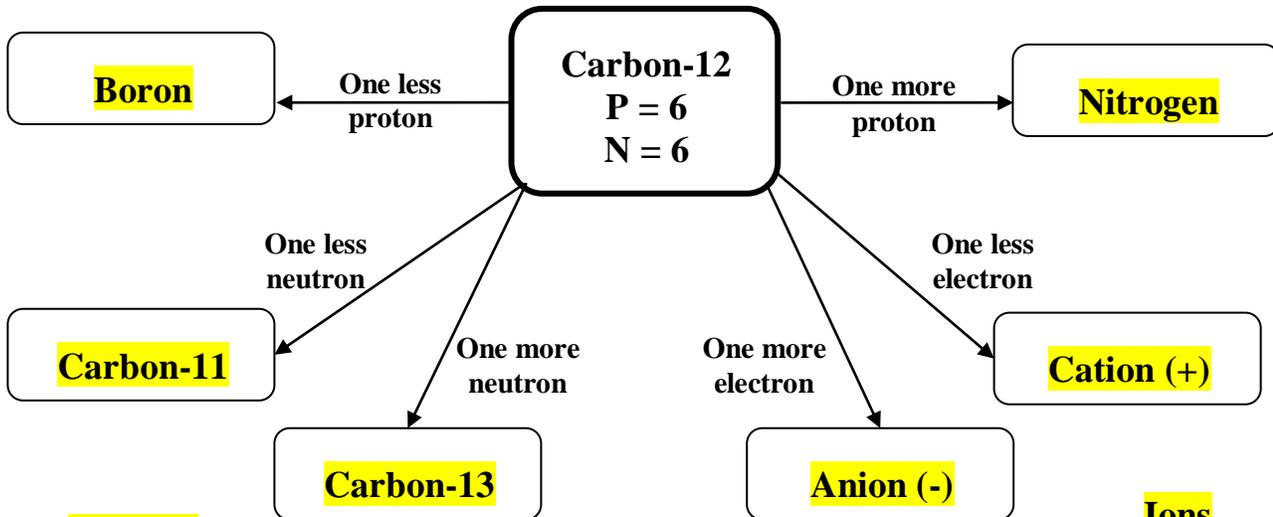
Atoms that have lost or gained electrons

Answer Key

What happens to an atom if we lose or gain protons, neutrons, or electrons? Use the words in the word bank to complete this worksheet.

Anion (-)
Boron
Carbon-11
Carbon-13

Cation (+)
Ions
Isotopes
Nitrogen



Isotopes

Atoms with different numbers of neutrons

Ions

Atoms that have lost or gained electrons

Teacher Notes:

Boron & Nitrogen - By changing the number of protons we have in an atom, we would change the type of atom we have.

Carbon-11 & Carbon-13 - By changing the number of neutrons we have in an atom, we would change the atomic mass for the element. Carbon-11 has 6 protons and 5 neutrons, while Carbon-13 has 6 protons and 7 neutrons. Both still have 6 protons, but are isotopes since they have different numbers of neutrons.

Cation & Anion - If we lose or gain electrons, we will have a charged atom called an ion. Atoms that lose electrons will have a positive charge and are called cations. Atoms that gain electrons would have a negative charge and are called anions.