Chemistry

Formation of Ions

Name:

Launch

Fill in the blanks using the word box. (Use words only once)

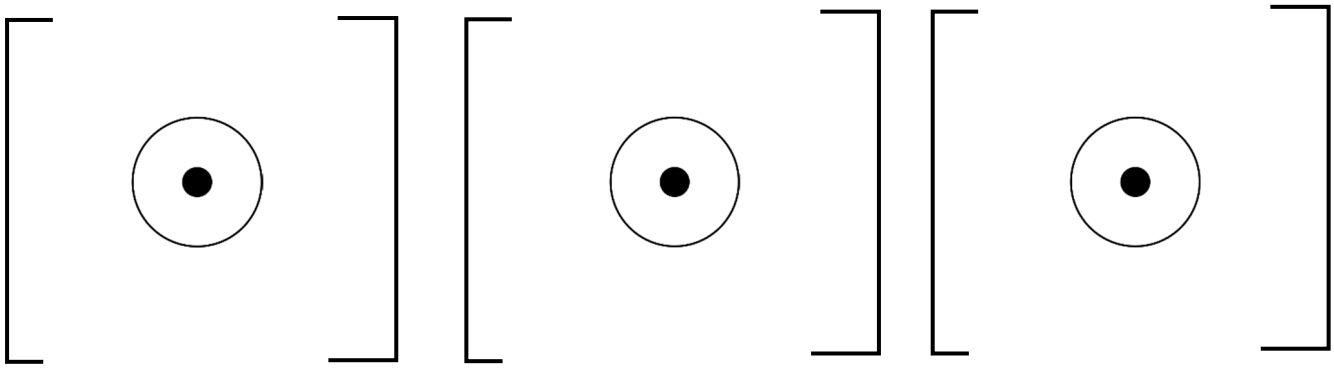
Ions are _____ particles whereas atoms are_____. Atoms can lose electrons to form _____ ions and gain electrons to form _____ _____ ions. _____ usually form negative ions because they are trying to get a full outer shell by _____ extra electrons. For example, a _____ atom will accept an electron to obtain a full outer shell.

Word Box

neutral	halogen
charged	metal
positive	noble gas
negative	metals
losing	non-metals
gaining	donating

Main Stage

The elements oxygen, calcium and sodium can form ions. *Complete the electronic configurations of the ions that they form below:*



Oxygen ion | Calcium ion | Sodium ion

Tick the correct statements and cross the incorrect statements:

- ☐ Metals usually form negative ions.
- ☐ Ions can consist of multiple atoms.
- ☐ Negative ions are called anions.
- ☐ An atom that has gained 3 electrons becomes an ion with a 3+ charge.

Boost

1) Which group is most likely to form a positive ion?

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2) Why are noble gases very unreactive?

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3) What is a cation?

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4) In which group of the periodic table would you expect to find an element that forms 2- ions?

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Landing

As a quick summary, complete the table below predicting the charge of the ion that each element forms:

Element	Ion Charge
Lithium	
Oxygen	
Magnesium	
Sodium	
Chlorine	