

Date: \_\_\_\_\_

- 1 Choose from the words below to complete the sentences:

atoms electrons negative positive gain lose

a An ion is an atom or group of \_\_\_\_\_ with a \_\_\_\_\_ or negative charge.

b Metal atoms \_\_\_\_\_ electrons to form positive ions.

c Non-metal atoms \_\_\_\_\_ electrons to form \_\_\_\_\_ ions.

- 2 Complete the table to show what happens when atoms form ions – the first one has been done for you.

Atom	Electronic configuration	Group number	Metal or non-metal?	Electrons lost or gained?	How many electrons?	Ion
Li	2.1	1	metal	lost	1	Li <sup>+</sup>
Na	2.8.1					
K	2.8.8.1					
Mg	2.8.2					
Ca	2.8.8.2					
O	2.6					
S	2.8.6					
F	2.7					
Cl	2.8.7					

- 3 Look at your completed table.

a What is the link between the group number and the number of charges on positively charged ions?

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b What is the link between the group number and the number of charges on negatively charged ions?