

## Octet Rule for Alkali Earth Metals

Name	Symbol	Bohr Diagram of Neutral Atom	Bohr Diagram of Stable Ion	Ionic Charge
Lithium	Li		loses $1e^-$ <span style="color: red;">→</span>	$1+$
Sodium	Na		loses $1e^-$ <span style="color: red;">→</span>	$1+$
Potassium	K		loses $1e^-$ <span style="color: red;">→</span>	$1+$

 $\text{Li}^{1+}$  $\text{Na}^{1+}$  $\text{K}^{1+}$ 

1. Do Alkali Earth Metals lose or gain electrons?

Alkali Earth Metals lose electrons.

2. How many electrons do Alkali Earth Metals lose or gain?

They lose one electron.

3. What is the ionic charge for Alkali Earth Metals?

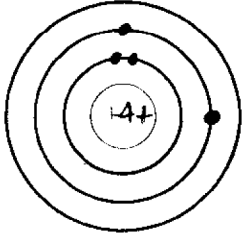
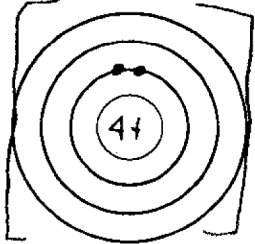
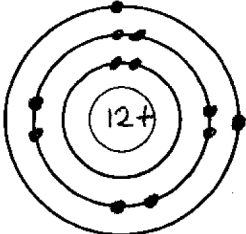
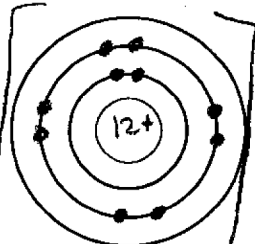
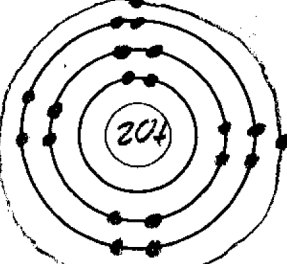
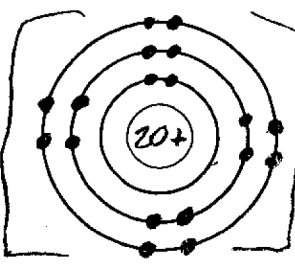
The ionic charge for Alkali Earth Metals is  $1+$ .

4. Write the ions for all of the Alkali Earth Metals

eg  $\text{H}^{1+}$

$\text{Li}^{1+}$   $\text{Na}^{1+}$   $\text{K}^{1+}$   $\text{Rb}^{1+}$   $\text{Cs}^{1+}$   $\text{Fr}^{1+}$

## Octet Rule for Alkaline Earth Metals

Name	Symbol	Bohr Diagram of Neutral Atom	Bohr Diagram of Stable Ion	Ionic Charge
Beryllium	Be			2+
Magnesium	Mg			2+
Calcium	Ca			2+

5. Do Alkaline Earth Metals lose or gain electrons?

Alkaline Earth Metals lose electrons.

6. How many electrons do Alkaline Earth Metals lose or gain?

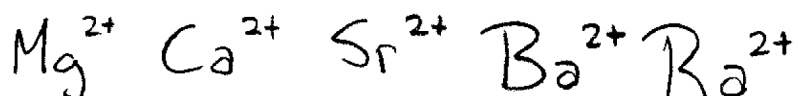
They lose two electrons.

7. What is the ionic charge for Alkaline Earth Metals?

The ionic charge of Alkaline Earth Metals is 2+.

8. Write the ions for all of the Alkaline Earth Metals

eg  $\text{Be}^{2+}$



## Octet Rule for Oxygen Group

Name	Symbol	Bohr Diagram of Neutral Atom	Bohr Diagram of Stable Ion	Ionic Charge
Oxygen	O			$2^-$
Sulfur	S			$2^-$
Selenium	Se			$2^-$

9. Does the Oxygen Group lose or gain electrons?

The Oxygen Group gain electrons.

10. How many electrons does the Oxygen Group lose or gain?

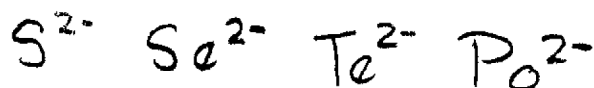
They gain 2 electrons.

11. What is the ionic charge for the Oxygen Group?

The ionic charge for the Oxygen Group is  $2^-$ .

12. Write the ions for all of the Oxygen Group

eg  $O^{2-}$



## Octet Rule for Halogens

Name	Symbol	Bohr Diagram of Neutral Atom	Bohr Diagram of Stable Ion	Ionic Charge
Fluorine	F			$1^-$
Chlorine	Cl			$1^-$
Bromine	Br			$1^-$

13. Do Halogens lose or gain electrons?

*They gain one electron.*

14. How many electrons do Halogens lose or gain?

*Halogens gain one electron.*

15. What is the ionic charge for Halogens?

*The ionic charge of Halogens is  $1^-$ .*

16. Write the ions for all of the Halogens

eg  $F^{1-}$

$Cl^{1-}$   $Br^{1-}$   $I^{1-}$   $At^{1-}$