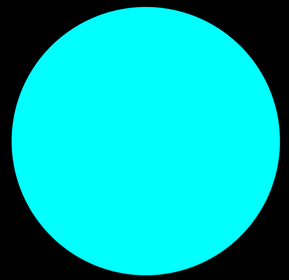
● 4+

Si ?



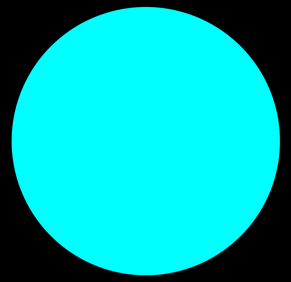
2-

O ?

● 4+

Si ?

Hint: The two most abundant elements in Earth's crust are **silicon (Si)** and **oxygen (O)**

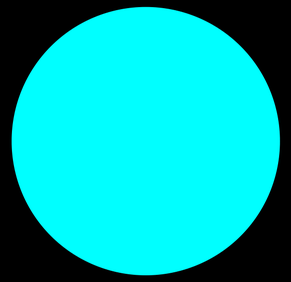


2-

O ?

4+

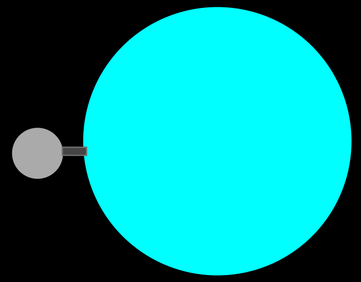
Si ?



2-

O ?

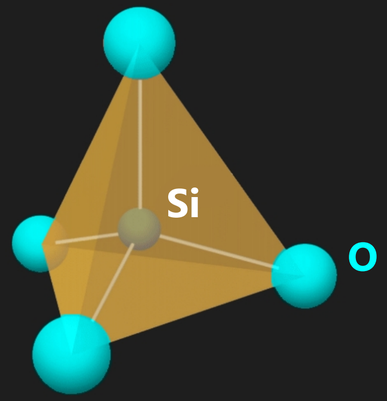
Hint: Nearly all minerals contain **oxygen (O)**. Move this oxygen ion around to see what it's attracted to.

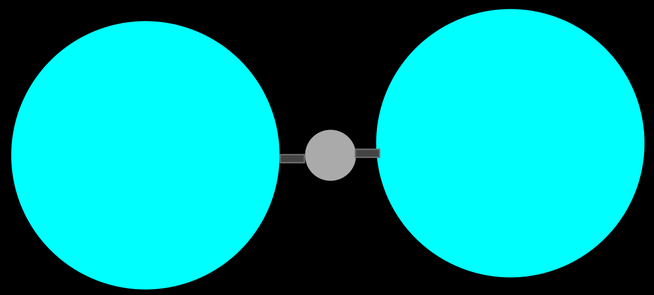


2+

SiO ?

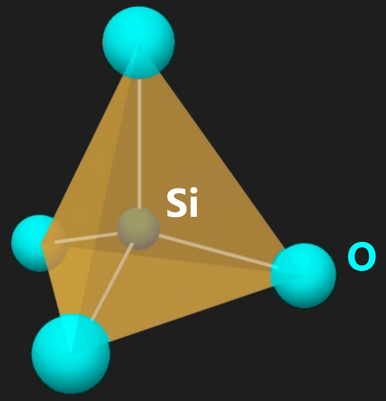
Hint: The basic building block of silicate minerals is **one silicon (Si)** atom surrounded by **four oxygen (O)** atoms.



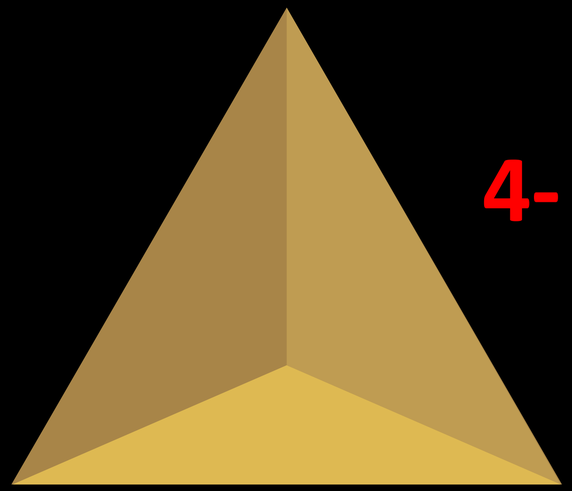


SiO_2 ?

Hint: The basic building block of silicate minerals is **one silicon (Si)** atom surrounded by **four oxygen (O)** atoms.



This is the formula for Quartz; how can we say something about that here?



4-

? SiO_4

Hint: Silicate minerals have one of the following formulas:

Nesosilicates

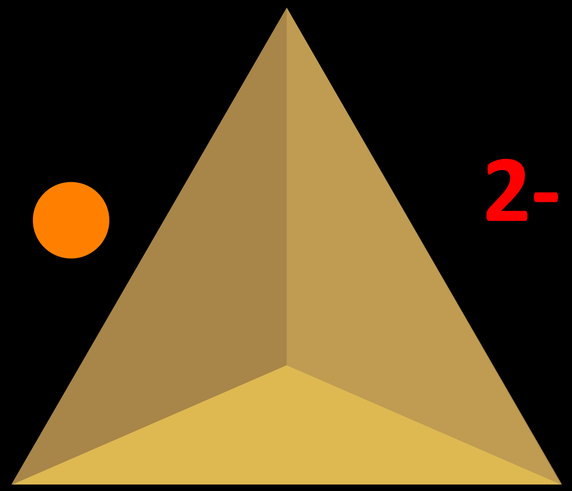
+ metal$^{\oplus}$ + metal$^{\oplus}$

Inosilicates (chain silicates)

+ metal$^{\oplus}$ + metal$^{\oplus}$

Tectosilicates (framework silicates)

+ metal$^{\oplus}$ + metal$^{\oplus}$



? $AlSiO_4$

Hint: Silicate minerals have one of the following formulas:

Nesosilicates

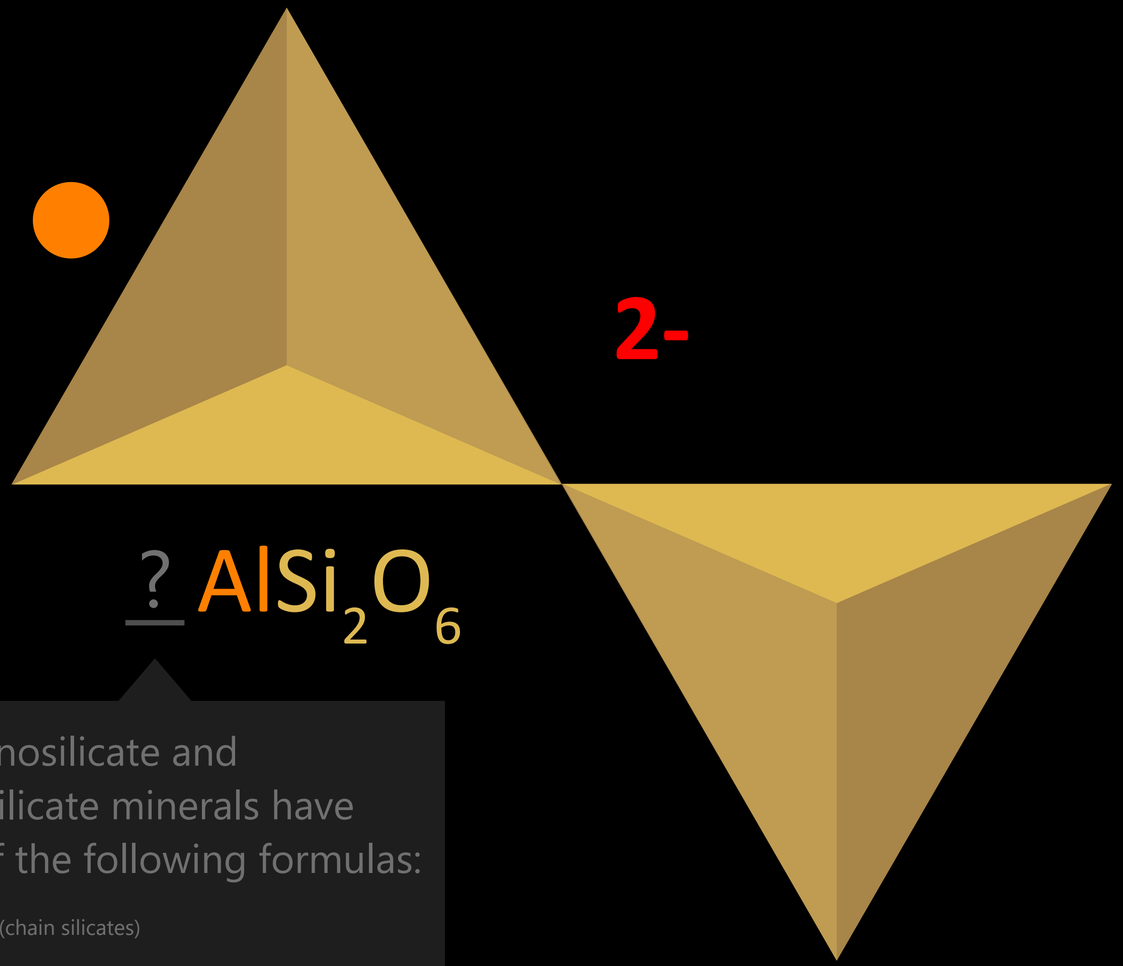
+ metal$^{\oplus}$ + metal$^{\oplus}$

Inosilicates (chain silicates)

+ metal$^{\oplus}$ + metal$^{\oplus}$

Tectosilicates (framework silicates)

+ metal$^{\oplus}$ + metal$^{\oplus}$



? $AlSi_2O_6$

Hint: Inosilicate and tectosilicate minerals have one of the following formulas:

Inosilicates (chain silicates)

+ metal$^{\oplus}$ + metal$^{\oplus}$

Tectosilicates (framework silicates)

+ metal$^{\oplus}$ + metal$^{\oplus}$