

# Ions

Watch [this](#) video and read [this](#) to help you answer the following questions:

1. What is an ion?
2. What is the valence shell?
3. What is an anion?
4. How is an anion formed?
5. What is a cation?
6. How is a cation formed?
7. Identify whether the following are cations or anions:
  - a)  $\text{Mg}^{2+}$
  - b)  $\text{K}^+$
  - c)  $\text{O}^{2-}$
8. Name the following:
  - a)  $\text{Cl}$
  - b)  $\text{Cl}^-$
  - c)  $\text{O}^{2-}$
  - d)  $\text{Al}^{3+}$
9. Write down the electronic configuration of the following:
  - a)  $\text{Mg}$
  - b)  $\text{Mg}^{2+}$
  - c)  $\text{Cl}$
  - d)  $\text{Cl}^-$
10. Explain the following statement: Atoms change into ions because ions are more stable than atoms.