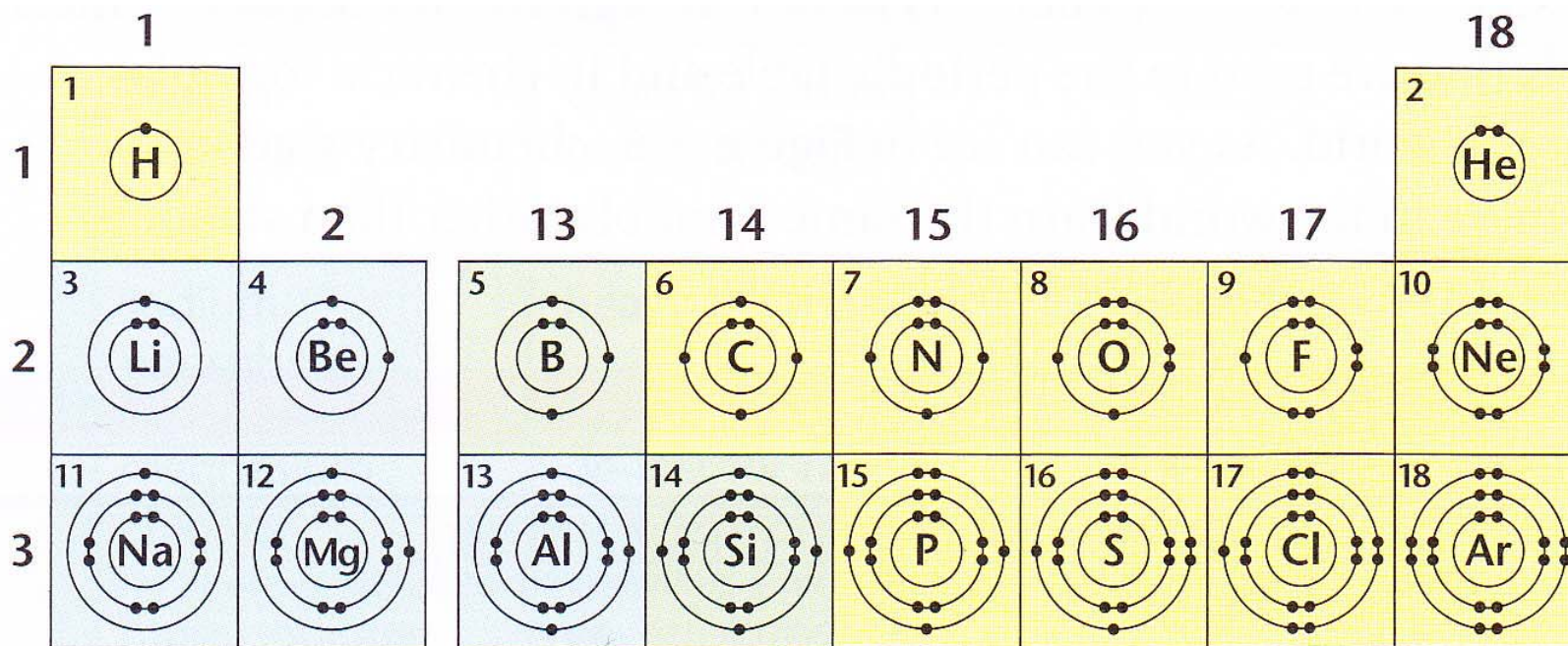


Lesson 7: Electron Arrangement

Lesson 7: Electron Arrangements & Reactivity (Nelson Textbook Page 166)

- Refer to the **Bohr-Rutherford Diagrams** for 18 elements below. Look closely at the **number of electrons** in the **outermost orbit** of each element.

Look for patterns.



- **Reactive (not stable) means** how likely it is an atom will **take part in a chemical reaction** and **form a compound**.
- Reactive → not stable
- **closer to a full orbit → more reactive**
- **more reactive** → **more likely** to take part in a chemical reaction
- **less reactive** → **less likely** to take part in a chemical reaction

- **Reactive elements** can become more stable when they form compounds.
- Elements in the group 18 (noble gases)
 - most stable → **NOT** reactive at all,
 - have a **FULL OUTER ORBIT**
 - **NEVER** form compounds

- Elements in the **group 17 (halogens)** → **most reactive non-metals**
 - → **NOT stable** at all,
 - → do NOT have a **full outer orbit**
 - → LIKE to form **compounds**

- Elements in the **group 1 (alkali metals)**
 - → **most reactive metals**
 - → **NOT stable** at all,
 - → do NOT have a **full outer orbit**
 - → LIKE to form **compounds**