

Group 1

- ① - Group 1 elements all react with oxygen to form the metal oxide.

Sodium + oxygen \rightarrow sodium oxide



- ② - Lithium, sodium and potassium all react with water to form the metal hydroxide and hydrogen gas. However, the metals become more reactive down the group so the reaction becomes more violent

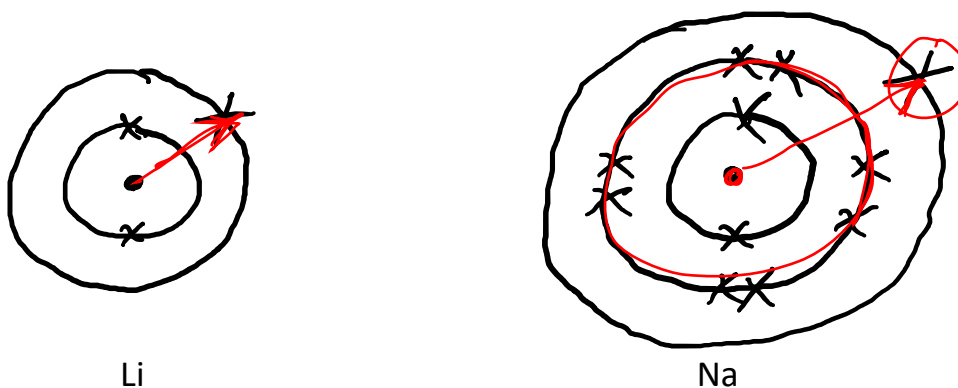
Metal	Observation
Li	Floats, fizzes, moves around
Na	Floats, fizzes, moves very quickly
K	Floats, fizzes, catches fire (lilac flame)

Equation



Explanation

All group 1 elements lose their outer electron when they react. As you go down the group it is easier for them to lose this electron because



- The electron is farther from the nucleus
- There are more shells between the nucleus and outer electrons (shielding)
- Together, these mean the attraction between the electron and the nucleus is weaker