

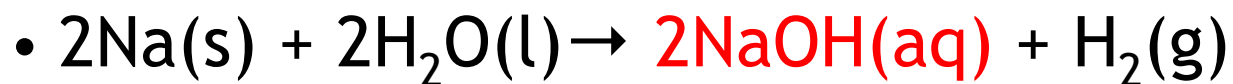
H/W Questions

- 1) How does the structure of the atom change across a period and down a group?
- 2) How does this affect the ionisation energy (How easy it is to remove an electron)?
- 3) How does this newfound understanding help us explain why K reacts more violently with water than Na?
- 4) In our demonstration reaction (adding sodium and potassium to water) why was the water alkali after the reaction?

- Draw an electronic structure diagram for sodium (Na), potassium (K) and chlorine (Cl).
- H/W question 1) How does the structure of the atom change across a period and down a group?
- H/W question 2) How does this affect the ionisation energy (How easy it is to remove an electron)?

- Atoms can lose or gain electrons to form ions with full outer shells of electrons.
- Anions (-ve charge)
- Cations (+ve charge)
- In reactions where ions are formed:
 - Metals lose electrons forming cations.
 - Non-metals gain electrons forming anions.
- H/W Question 3) Why does K react more violently with water than Na? (Think about your answer to H/W Question 2)

- H/W Question 4) In our demonstration reaction why was the water alkali after the reaction?



- A base is a substance that neutralises an acid. Bases such as metal oxides and metal hydroxides react with acids to form neutral products.
- Bases that are also soluble in water are called alkalis.
- Examples of alkalis: sodium hydroxide
- All alkalis are bases.