p. 175 #1, 2

#2 a) hydrogen → element

b) potassium carbonate → compound

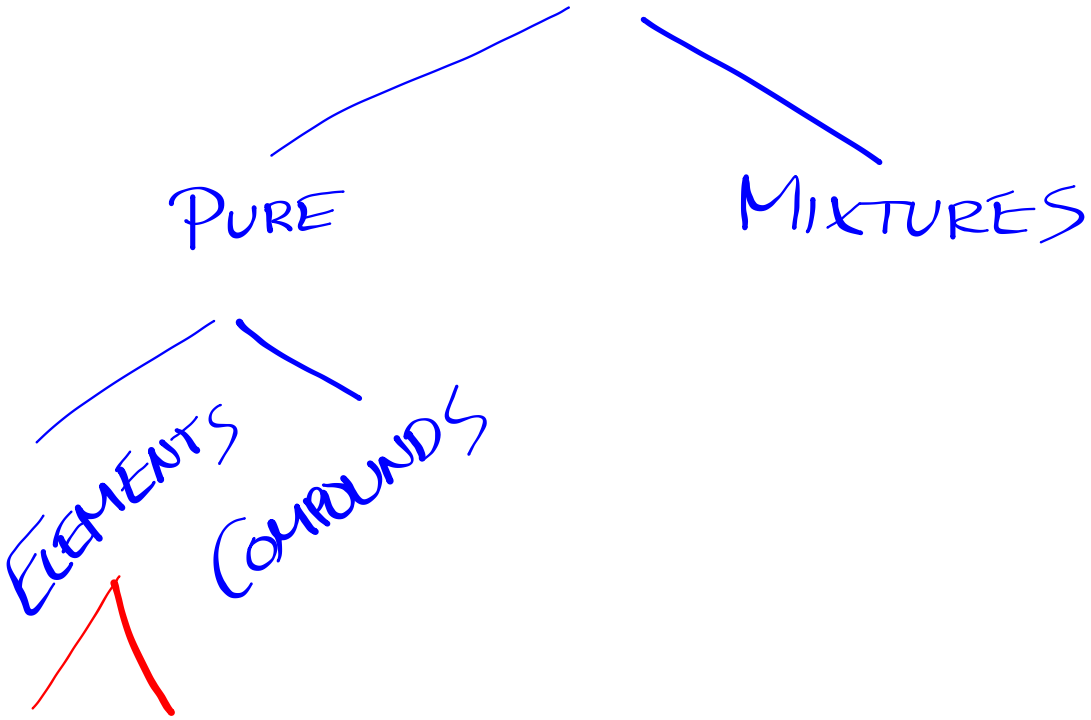
c) water (H_2O) → compound

d) Mg → element

1. a) soapy water (H_2O) → mixture

b) hydrogen gas → pure

c) Sodium chloride → pure


PURE
MIXTURES
ELEMENTS
COMPOUNDS

Physical Property

↳ appearance

* can be described with senses

Chemical Property

* behaviour

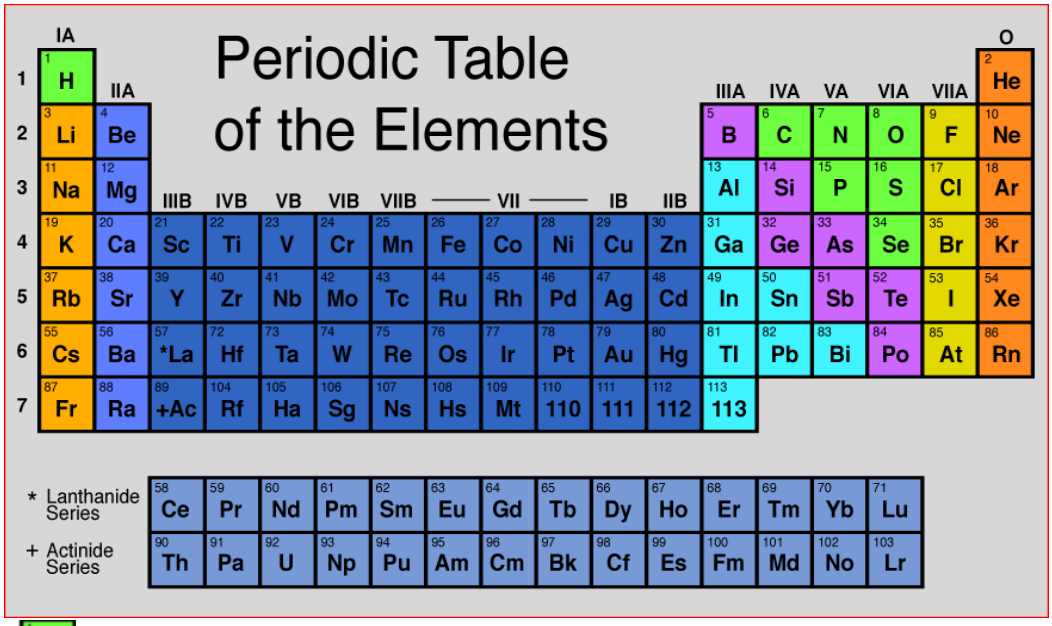
H_2O
Water boils

H_2O
water vapor

Review of the Periodic Table

Periodic table - a structured arrangement of elements that help us explain and predict physical and chemical proerties.

Metals are generally located on the left, while the non-metals are located on the right side of the table.
(staircase line)



Hydrogen, the lightest element, is the exception to almost every rule in chemistry. Although it is located on the left side of the staircase, it behaves mostly as a **nonmetal**

Metals are normally shiny, malleable , conductors, react with acid, and are mostly solids at room temperature.

Non-metals are generally dull, brittle, good insulators, do not react with acid, and can be solid, liquids or gas at room temperature.

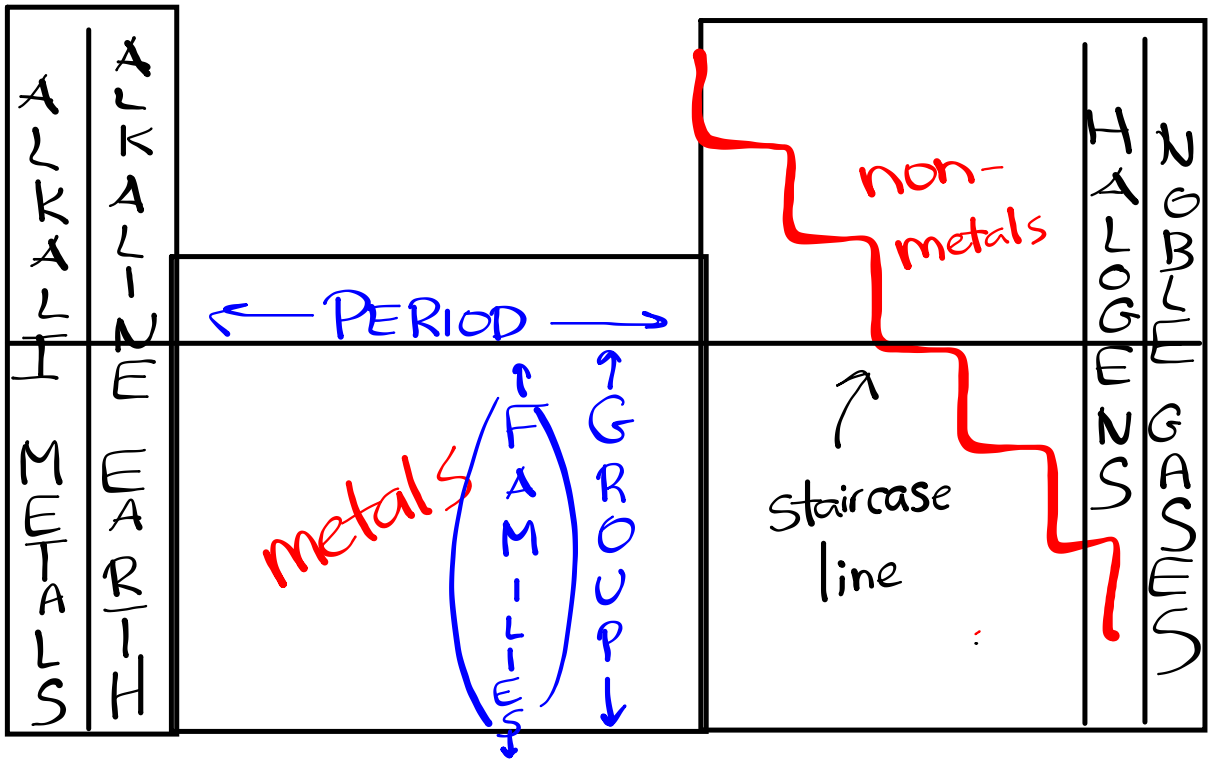
Chemical Families (groups) are vertical columns in the periodic table. They tend to have similar physical and chemical properties.

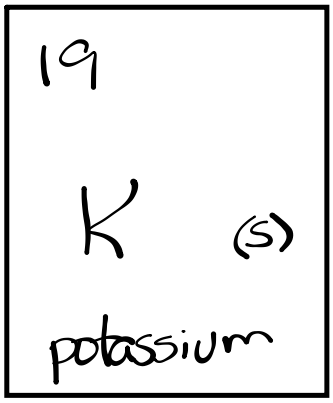
Alkali metals (group 1) are shiny, silvery metals and form compounds that are mostly white solids and soluble in water.

Alkaline earth metals (group 2) are shiny, silvery metals, but they form compounds that are not soluble in water.

The *halogens* (group 17) generally react with alkali metals.

Noble gases (group 18) generally do not form compounds.


ALKALI METALS
ALKALINE EARTH
PERIOD
FAMILIES
GROUP
metals
non-metals
staircase line
HALOGENS
NOBLE GASES



Fe

fluorine F 9 17 2 nm gas

halogen

111

ununumium

Periodic Table Map