* Summarize the significance of copper throughout history

- symbol of ankh

- its alloys, brass and bronze, used for many things

- conductor

- investment, ceremonial object

* Describe the basic physical properties of copper

- number 29, density of 8.93, mass 63.5

-The melting point of copper is 1,084 °C and it boils at approximately 2,562 °C.

- copper oxides (black in colour) and copper carbonate (green in colour, verdigris).

- green rooftops and statues

- not noble

-  native - isometric (cubic) crystal system, soft

- The four main copper sulfide minerals are chalcocite, bornite, chalcopyrite and covellite

- Other important non-sulfide copper ore minerals are cuprite,azurite, and malachite.

* Compare the properties of copper to other metals we studied
* List the common copper ore minerals
* Describe the most common geological setting in which copper ores occur
* List the important copper districts of the world

- Canada - porphyry deposits (~50%), with Ni-Cu deposits of Sudbury (~29%) and VMS deposits across the country (~21%)

- 15% of copper is produced through recycling. (atleast)

- Over the last ten years, the price of copper has ranged from ~$1.00 USD per pound to about $4.50 USD per pound

- Asia (mainly Japan and China) is the largest importer region of refined copper.

- Historically, Europe had been the primary market followed by North America. (2nd and 3rd now)

-  top copper producing countries are Chile, China, Peru, and United States. Australia, Russia, Zambia and Indonesia are also significant producers.

-  electrical conductivity of copper is best when copper is purest

wire, piping, tubing, roofing, doorknobs, and faucets, among many others.

* Describe the process of copper and copper alloy casting
* Differentiate between brass and bronze

brasses are copper-zinc alloys with a bright yellow colour

bronzes are copper alloys commonly with tin and have a duller lustre

* List some of the "alternative" metals entering the jewellery industry

Tungsten carbide is becoming a popular metal alloy due to its Mohs hardness of ~8.5 to 9

- Titanium in watches and bands (light and durable), not very allergic

- Stainless steel and aluminum as jewellery, easily accessible but not durable like tungsten and titanium