

ATOMS

- PROTONS HAVE A POSITIVE (+) CHARGE
- ELECTRONS HAVE A NEGATIVE (-) CHARGE
- NEUTRONS HAVE NO CHARGE
- NEUTRONS HAVE A MASS EQUAL TO PROTONS
- ELECTRONS HAVE A TINY MASS COMPARED TO PROTONS & NEUTRONS
- 2000 ELECTRONS HAVE EQUAL MASS TO 1 PROTON
- PROTONS & NEUTRONS ARE LOCATED INSIDE THE NUCLEUS
- ELECTRONS REVOLVE AROUND THE NUCLEUS IN ELECTRON CLOUDS
- MASS NUMBER IS PROTONS + NEUTRONS
- ATOMIC NUMBER IS THE NUMBER OF PROTONS
- ELEMENTS ARE IDENTIFIED BY THEIR ATOMIC NUMBERS
- ATOMS HAVE EQUAL NUMBERS OF ELECTRONS & PROTONS SO THEY ARE NEUTRAL
- IONS ARE CHARGED ATOMS THAT HAVE LOST OR GAINED ELECTRONS
- THERE ARE SUB-ATOMIC PARTICLES THAT MAKE UP THE NUCLEUS
- THE OUTSIDE ELECTRONS ARE CALLED VALENCE ELECTRONS
- THOMSON DISCOVERED THE ELECTRON
- RUTHERFORD DISCOVERED THE PROTON
- CHADWICK DISCOVERED THE NEUTRON

PERIODIC TABLE

- MENDELEEV ARRANGED THE ELEMENTS ON THE PERIODIC TABLE IN ORDER OF INCREASING ATOMIC MASS
- MOSELEY ARRANGED THE MODERN PERIODIC TABLE BY INCREASING ATOMIC NUMBER
- METALS ARE ON THE LEFT & NON-METALS ARE ON THE RIGHT OF THE PERIODIC TABLE
- METALLOIDS FORM A STAIR-STEP BETWEEN METALS & NON-METALS
- TRANSITION METALS ARE IN THE MIDDLE OF THE PERIODIC TABLE
- A FAMILY OR GROUP IS A VERTICAL COLUMN ON THE PERIODIC TABLE
- A PERIOD IS A HORIZONTAL ROW ON THE PERIODIC TABLE
- ELEMENTS IN A FAMILY ALL HAVE THE SAME NUMBER OF VALENCE ELECTRONS
- ELEMENTS ARE MORE REACTIVE GOING DOWN THE COLUMN (MOST REACTIVE ON BOTTOM)
- THE 1ST FAMILY IS CALLED THE ALKALI METALS
- NOBLE GASES, THE LAST FAMILY, ARE THE LEAST REACTIVE GROUP OF ELEMENTS
- COPPER, SILVER, & GOLD ARE ALL IN THE SAME FAMILY OF ELEMENTS
- NON-METALS ARE BRITTLE AND HAVE NO LUSTER (SHINE)
- MALLEABLE MEANS A METAL CAN BE HAMMERED INTO A SHEET
- DUCTILE MEANS A METAL CAN BE DRAWN INTO WIRE
- LUSTER MEANS A METAL IS SHINY