

SUGGESTED READING: CRACOLICE/PETERS - CHAPTER 5

WORK ON PRACTICE PROBLEMS

OBJECTIVES FOR UNIT 3:

ATOM'S TIMELINE

THE ATOM

THE GREEK'S ATOM

DALTON BRINGS BACK THE ATOM

DALTON'S ATOMIC THEORY

SUBATOMIC PARTICLES

THE DISCOVERY OF THE ELECTRON

MICHAEL FARADAY

WILLIAM CROOKES

J. J. THOMSON

CATHODE RAYS

ROBERT MILLIKAN

OIL DROP

THE DISCOVERY OF THE PROTON

ERNEST RUTHERFORD

THE DISCOVERY OF THE NEUTRON

JAMES CHADWICK

STRUCTURE OF THE ATOM

FIRST THEORY: J.J. THOMSON'S PLUM PUDDING MODEL

SECOND THEORY: ERNEST RUTHERFORD'S GOLD FOIL EXPERIMENT

STRUCTURE OF THE ATOM

ELECTRON, PROTON, NEUTRON

1. CATION

2. ANION

1. ATOMIC NUMBER

2. MASS NUMBER

ISOTOPES

ATOMIC MASS, AVERAGE ATOMIC MASS

THE PERIODIC TABLE & ELEMENTAL SYMBOLS

EARLY CLASSIFICATION

DMITRI MENDELEEV

THE MODERN PERIODIC TABLE

HORIZONTAL ROWS ARE CALLED PERIODS & VERTICAL COLUMNS

GROUP 1 (I) - ALKALI METALS

GROUP 2 (II) - ALKALINE EARTH METALS

GROUP 17 (VII) - HALOGENS

GROUP 18 (VIII) - NOBLE GASES

PERIOD 6 - LANTHANIDE SERIES

PERIOD 7 - ACTINIDE SERIES

METALS

NONMETALS

METALLOIDS