

## Atom

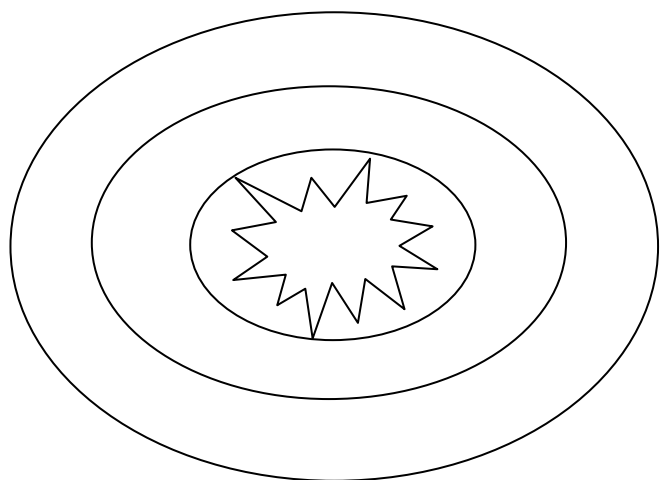
In this area you define the term atom and list the 3 subatomic particles.

## Protons, Neutrons and Electrons

Define these three terms. Explain their charges. Explain where each particle is located.

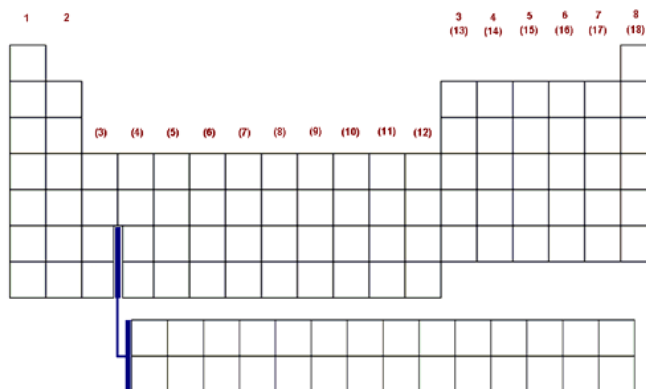
## Atomic Model

Sketch a model of the atom and label all of the parts.



## Periodic Table of Elements

Explain how the periodic table is set up. Define terms period and group. How are they different? Indicate where groups, periods metals, non-metals and metalloids are located.



## Chemical Families

Research the names of the families in the periodic table. Provide the name and description of the most reactive and least reactive families and indicate their location on the periodic table.

## Metals, Non-Metals, and Metalloids

### Metals:

List and describe what metals are. Provide a short list of characteristics and some examples.

### Non-metals:

List and describe what non-metals are. Provide a short list of characteristics and some examples.

### Metalloids:

List and describe what metalloids are. Provide a short list of characteristics and some examples.

## Atomic Theory

### Atomic Number

Define this term. Select 10 elements and identify their atomic numbers.

### Atomic Mass

Define this term. Select 5 elements and identify their number of protons, neutrons and electrons, using the atomic number and mass to calculate.

### Element Box: Periodic Table

Create two element boxes to represent elements on the periodic table.

1. Element where protons, neutrons and electrons are all equal.
2. Element where protons, neutrons and electrons are not equal.

## Chemical Reactions

### Reactants

Define reactant.

Accurately write out the chemical equation for photosynthesis.

Highlight the reactants.

### Products

Define product.

Accurately write out the chemical equation for respiration. Highlight the products.

### Law of Conservation of Matter

- What does the law state. Create a graphic to represent this definition.
- Create a mathematic/chemical equation to represent the Law of Conservation of Matter.

# Periodic Table and Chemistry Study Guide

**Name and Date**