

Common Compounds Project

Every day we are surrounded by chemicals that are helpful.....and sometimes harmful. Regardless, an understanding of these chemicals is necessary in our lives. We can learn to avoid exposure of some chemicals or use chemicals to improve our lives. To better understand and identify compounds, you will create a brochure that illustrates information about a chosen compound. The brochure will examine what a mineral is composed of, how a mineral is formed, where a mineral can be located, how a mineral is used commercially, and general facts about a mineral. You will work alone on this project. This project is worth 100 points and will be due in two weeks. Grades will be based on content, quality, and appearance. The following criteria must be fulfilled :

1. Choose one of the following compounds. - *See back side - (not limited to the list)*

2. Create the following panels :

Panel #1 : Title Of Brochure (10 points)

- Include your title, name, date, and picture

Panel #2 : Chemical Characteristics of the compound (12 points)

- List 5 characteristics of the compound.

(Chemical Formula, Molecular/Structural Form, Molar Mass, Density, etc.)

- Include a picture

Panel #3 : Identify 5 different Manufacturers (12 points)

- List 5 manufacturers (*and locations*) that process the compound.

- Include a picture

Panel #4 : Identify 5 different Uses of the compound (12 points)

- List 5 uses of the compound.

- Include a picture

Panel #5 : Identify 5 different Benefits / Health Risks of the compound (12 points)

- List 5 benefits and/or health risks of the use of the compound.

- Include a picture

Panel #6 : Identify 10 different Compound Facts (12 points)

- List 10 facts about the compound you chose to research.

- Include a picture.

Appearance (20 points)

: Do not use paragraphs, (Use dot-jots – except for facts)

: Fill up the page (avoid “dead space”)

: Put a heading on each panel (Chemical Characteristics, Manufacturers, etc.)

3. Hints For Neatness (10 points)

- Use subheadings for each category on your brochure.

- Bullet information (DO NOT use large paragraphs of information)

- Copied Internet pages will result in a “Missing Grade = 0 Points”

Common Compounds

Polyatomic Ions

Acetate : $\text{C}_2\text{H}_3\text{O}_2^-$
Ammonium : NH_4^+
Bicarbonate : HCO_3^-
Bisulfate : HSO_4^-
Bisulfite : HSO_3^-
Bromate : BrO_3^-
Carbonate : CO_3^-
Chlorate : ClO_3^-
Chlorite : ClO_2^-
Chromate : CrO_4^{2-}
Cyanate : OCN^-
Cyanide : CN^-
Dichromate : $\text{Cr}_2\text{O}_7^{2-}$
Hydroxide : OH^-
Hypochlorite : ClO^-
Iodate : IO_3^-
Nitrate : NO_3^-
Nitrite : NO_2^-
Oxalate : $\text{C}_2\text{O}_4^{2-}$
Perchlorate : ClO_4^-
Permanganate : MnO_4^-
Peroxide : O_2^{2-}
Phosphate : PO_4^{3-}
Phosphite : PO_3^{3-}
Silicate : SiO_4^{4-}
Sulfate : SO_4^{2-}
Sulfite : SO_3^{2-}
Thiosulfate : $\text{S}_2\text{O}_3^{2-}$

Molecular Compounds

Acetic Acid : CH_3COOH
Ammonia : NH_3
Bicarbonate : HCO_3
Caffeine : $\text{C}_8\text{H}_{10}\text{N}_4\text{O}_2$
Calcium Carbonate : CaCO_3
Calcium Hydroxide : $\text{Ca}(\text{OH})_2$
Carbon Dioxide : CO_2
Carbon Monoxide : CO
Ethanol : $\text{C}_2\text{H}_5\text{OH}$
Ethane : C_2H_6
Ferric Oxide (rust) : Fe_2O_3
Glucose : $\text{C}_6\text{H}_{12}\text{O}_6$
Hexane : C_6H_{14}
Hydrochloric Acid : HCl
Hydrogen Hydroxide (water) H_2O
Hydrogen Peroxide : H_2O_2
Methanol : CH_3OH
Methane : CH_4
Nitric Oxide : NO
Ozone : O_3
Pentane : C_5H_{12}
Phosphoric Acid : H_3PO_4
Potassium Iodide : KI
Silver Nitrate : AgNO_3
Sodium Bicarbonate : NaHCO_3
Sodium Chloride (table salt) : NaCl
Sulfur Dioxide : SO_2
Sulfuric Acid : H_2SO_4