BELLRINGER:

Which mineral is used in the common goods seen here?

Match them up.

Feldspar

Silica

Aluminum

Flourite

Halite

Quartz

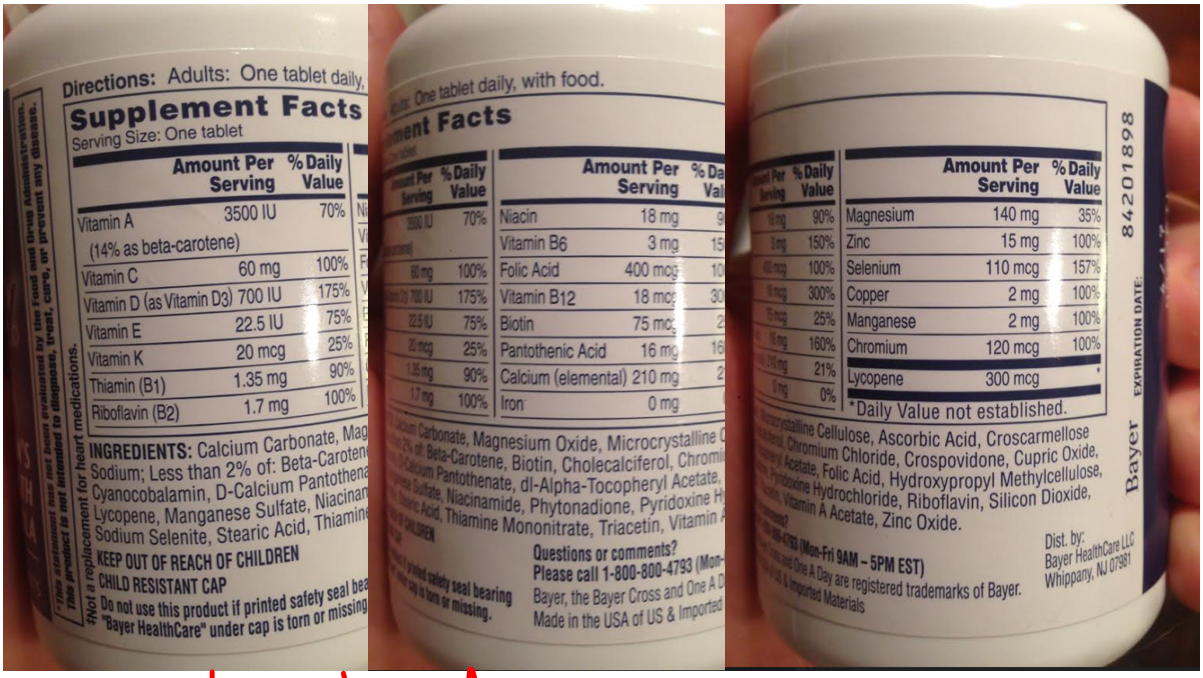
Beryllium

Gallium

BELLRINGER:

Which mineral is used in the common goods seen here?

Match them up.



What Minerals do you see?

FACTS ABOUT MINERALS

All nutrients such as vitamins, proteins, enzymes, amino acids, carbohydrates, fats, sugars, oils, etc. require minerals for proper cellular function. All bodily processes depend upon the action and presence of minerals.

Minerals are more important to nutrition than vitamins. Vitamins are required for every bodily biochemical process. However, vitamins cannot function unless minerals are present.

Minerals are needed for healing. Tissue rebuilding occurs more readily when the body has access to the necessary minerals. This is why soaking in water quickly heals wounds, and why, traditionally, health spas are so popular.

Minerals are difficult to absorb into the body. Calcium, for instance, must be taken with vitamins D and C, essential fatty acids and in the proper ratio to magnesium, in order to be digested.

One of the reasons that women tend to be anemic is because of improper digestion of iron. Iron is present in every food we eat, according to the late nutritionist, Adelle Davis.

However, because the mineral is difficult to digest, most iron ingested passes through the body unassimilated. Iron is best absorbed with additional vitamin C.

Many mineral supplements are not easily assimilated by the body. It's important that mineral supplements be water soluble, not in rock form, and that the elements be in an oxygenated state, bringing more oxygen to the blood cells and thereby releasing toxins from the body.

Minerals are the nutrients that exist in the body, and are as essential as our need for oxygen to sustain life. Minerals are also found in organic and inorganic combinations in food. In the body only 5% of the human body weight is mineral matter, vital to all mental & physical processes & for total well-being. They are most important factors in maintaining all physiological processes, are constituents of the teeth, bones, tissues, blood, muscle, and nerve cells.

Acting as catalysts for many biological reactions within the human body, they are necessary for transmission of messages through the nervous system, digestion, & metabolism or utilization of all nutrients in foods. Vitamins cannot be properly assimilated without the correct balance of minerals. For example; calcium is needed for vitamin "C" utilization, zinc for vitamin "A", magnesium for "B" complex vitamins, selenium for vitamin "E" absorption, etc.

Minerals are very important in keeping the blood and tissue fluids from either becoming too acid or too alkaline, and they allow other nutrients to pass into the bloodstream, and aid in transporting nutrients to the cells. They also draw chemicals in & out of the cells. A slight change in the blood concentration of important minerals can rapidly endanger life.

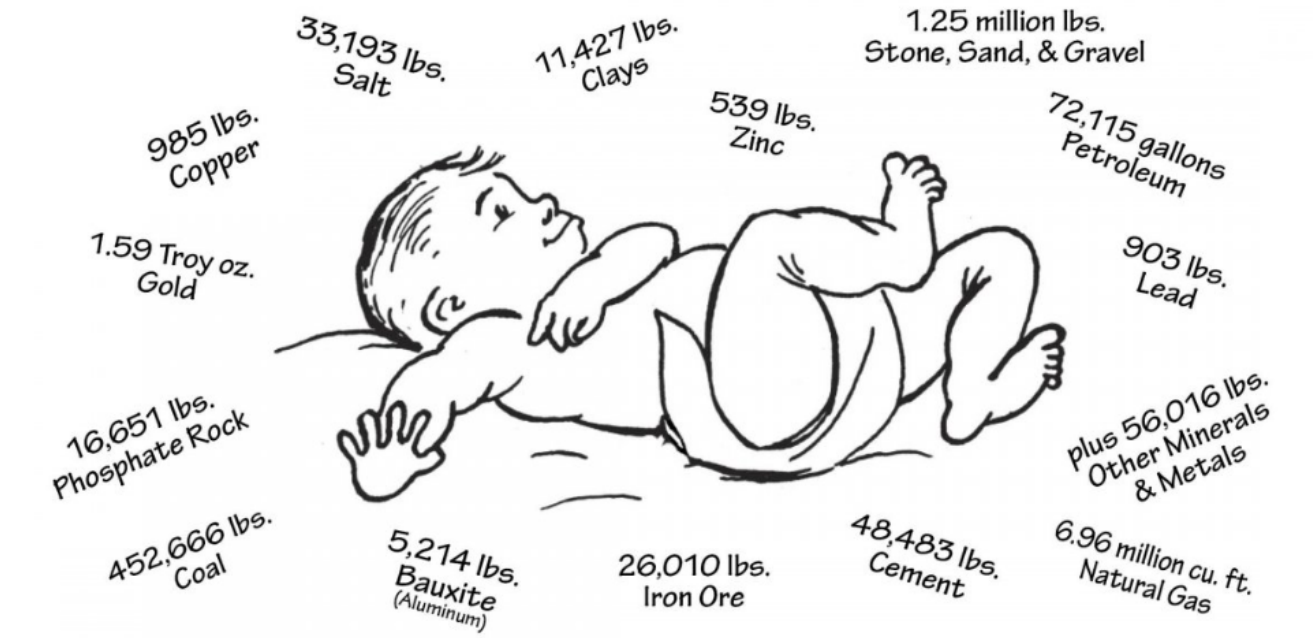
Many times, minerals are discussed separately, but it is important to note that their actions within the body are interrelated; no single mineral can function without the others, since they are synergestically related. They are the electrolytes to the body, that is; they carry the electrical current through the body. There is much proof that the body is run electrically, and minerals are the conductor of these currents. They provide the necessary charge or "ionization" of positive or negative electrical molecules. Ions keep the "human battery" charged. If a person is lacking in minerals or deficient in any one particular one, they can become run down very rapidly.

A diet rich in green vegetables and fruits, and whole grains grown in fertile soil may afford some assurance of minerals, but much of our soil today is depleted and lacking in essential nutrients. Adding mineral-trace mineral supplements to the diet, will provide some insurance. If there is a problem with poor digestion & assimilation, the best method might be to add liquid minerals to the diet, to afford easier absorption & rapid assimilation. Liquid minerals from the sea, a natural source, have shown beneficial results in the shortest length of time. Sea water has been shown to have the same chemical balance as the human blood, so may be used quite adequately in the human body. Having the proper balance of minerals in the body can make the difference between disease or sickness and optimum health.

Role of Minerals in the Body • Minerals act as co-factors for enzyme reactions. Enzymes don't work without minerals. All cells require enzymes to work & function. They give us our vitality. • They maintain the pH balance within the body. • Minerals actually facilitate the transfer of nutrients across cell membranes. • They maintain proper nerve conduction • Minerals help to contract and relax muscles. • They help to regulate ou...

Read More at divinehealthfromtheinsideout.com/2012/05/the-role-of-minerals-in-the-body/

Every American Born Will Need...



3.11 million pounds of minerals, metals, and fuels in their lifetime

Learn more at www.MineralsEducationCoalition.org

Every Year— 39,543 pounds of new minerals must be provided for every person in the United States to make the things we use every day

9,073 lbs. **Stone** used to make roads, buildings, bridges, landscaping, and for numerous chemical and construction uses

6,819 lbs. **Sand & Gravel** used to make concrete, asphalt, roads, blocks and bricks

616 lbs. **Cement** used to make roads, sidewalks, bridges, buildings, schools and houses

330 lbs. **Iron Ore** used to make steel— buildings; cars, trucks, planes, trains; other construction; containers

422 lbs. **Salt** used in various chemicals; highway deicing; food & agriculture

212 lbs. **Phosphate Rock** used to make fertilizers to grow food; and as animal feed supplements

145 lbs. **Clays** used to make floor & wall tile; dinnerware; kitty litter; bricks and cement; paper

66 lbs. **Aluminum (Bauxite)** used to make buildings, beverage containers, autos, and airplanes

13 lbs. **Copper** used in buildings; electrical and electronic parts; plumbing; transportation

11 lbs. **Lead** 87% used for batteries for transportation; also used in electrical, communications and TV screens

7 lbs. **Zinc** used to make metals rust resistant, various metals and alloys, paint, rubber, skin creams, health care and nutrition

34 lbs. **Soda Ash** used to make all kinds of glass; in powdered detergents; medicines; as a food additive; photography; water treatment

6 lbs. **Manganese** used to make almost all steels for construction, machinery and transportation

536 lbs. **Other Nonmetals** have numerous uses: glass, chemicals, soaps, paper, computers, cell phones

22 lbs. **Other Metals** have the same uses as nonmetals but also electronics, TV and video equipment, recreation equipment, and more

Including These Energy Fuels

• 915 gallons of **Petroleum** • 5,752 lbs. of **Coal** • 88,274 cu. ft. of **Natural Gas** • 0.18 lb. of **Uranium**

To generate the energy each person uses in one year—

 www.MineralsEducationCoalition.org Society for Mining, Metallurgy & Exploration Foundation

What are Minerals?

To meet the definition of "mineral" used by most geologists a substance must meet five requirements:

- **naturally occurring**
- **inorganic**
- **solid**
- **definite chemical composition**
- **ordered internal structure**

"Naturally occurring" means that people did not make it. Steel is not a mineral because it is an alloy produced by people. "Inorganic" means that the substance is not made by an organism. Wood and pearls are made by organisms and thus are not minerals. "Solid" means that it is not a liquid or a gas at standard temperature and pressure.

"Definite chemical composition" means that all occurrences of that mineral have a chemical composition that varies within a specific limited range. For example: the mineral halite (known as "rock salt" when it is mined) has a chemical composition of NaCl. It is made up of an equal number of atoms of sodium and chlorine.

"Ordered internal structure" means that the atoms in a mineral are arranged in a systematic and repeating pattern. The structure of the mineral halite is shown in the illustration at right. Halite is composed of an equal ratio of sodium and chlorine atoms arranged in a cubic pattern.

ACTIVITY:

1. Look at the two minerals given to your group and list at least 10 observations. (ex. how does it feel, look, weigh, etc.)
2. Compare and contrast them and list 5 similarities and 5 differences.