



Name(s) _____

Visit the Earth Science section of the Kid Zone at The Science Spot (<http://sciencespot.net/>) to find the answers to these questions!

Site: Mineral Uses

1. Based on current consumption, it is estimated that you - and every other person in the United States - will use more than a _____ pounds of rocks, minerals and metals during your lifetime. How many pounds of the following will you use?

_____ Lead _____ Zinc _____ Copper _____ Aluminum
_____ Iron _____ Clays _____ Salt _____ Stone, sand, & gravel

2. Match each resource to its best use(s).

- | | |
|-----------------|---|
| _____ Aluminum | A. Used to make "copper" pennies, brass, and nails |
| _____ Antimony | B. Used to make fertilizer, paper, film, matches, tires, and drugs |
| _____ Beryllium | C. Used to make phosphate fertilizer and is found in soft drinks |
| _____ Coal | D. Most abundant element used to make containers and deodorants |
| _____ Copper | E. Found in metal alloys for air crafts as well as emeralds |
| _____ Flint | F. Used to produce 56% of electricity in the US |
| _____ Fluorite | G. Used to make electrical wires, brass, bronze, coins, plumbing, and jewelry |
| _____ Galena | H. Used to make arrowheads, spear points, and knives; may be used to start a fire |
| _____ Gold | I. Primary source of lead, used to make batteries, fishing weights, and the lead shields to protect us during X-rays |
| _____ Gypsum | J. Primary use is for "sheet rock" or wallboard |
| _____ Halite | K. Native element used to make medicine, glass, and fireworks |
| _____ Hematite | L. Used to make fluoride toothpaste, pottery, and hydrofluoric acid |
| _____ Limestone | M. Used in dentistry, medicine, jewelry, art, and computers; very malleable (can be made to be thinner than human hair) |
| _____ Lithium | N. Primary ore of iron used to produce iron for steel for automobiles, tools, and bridges |
| _____ Mica | O. Composed of calcium carbonate and is used in the construction of homes, sidewalks, bridges, and skyscrapers |
| _____ Phosphate | P. May be ground up to add "sparkle" to paints and cosmetics |
| _____ Silica | Q. Used in the manufacture of computer chips, glass, ceramics, abrasives, and sweeteners |
| _____ Silver | R. Used as food seasoning, water softener, and de-icer |
| _____ Sulfur | S. Compounds are used in ceramics and glass; may also be used for rocket propellants, batteries, and medicine |
| _____ Zinc | T. Used in photography, chemistry, jewelry, coins, mirrors, and silverware |

Site: Fireworks

1. How many tons of fireworks are used each year?
2. What minerals are used to make the following colors or special effects?

Bright Greens -

Yellows -

Silvery White -

Orange -

Deep Reds -

Gold Sparks -

Lavender -

Bright flashes -

Blues -

Silvery-white flashes -

Site: Mineral Groups

1. What are the birthstone(s) for each month?

January: _____ or _____

February: _____ or _____

March: _____ or _____

April: _____ or _____

May: _____ or _____

June: _____ or _____ or _____

July: _____ or _____

August: _____ or _____

September: _____ or _____

October: _____ or _____

November: _____ or _____

December: _____ or _____

2. Name three minerals that “glow” under ultraviolet light. What is the glow called?

3. What is a gemstone? Can all minerals be gemstones? Explain.

4. What is a mineraloid? Give 3 examples.

Site: Minerals & Metals at Home

Explore the site to discover the minerals “hidden” in each item. Warning: Be patient for the page to load completely!

Area 1: The Driveway

- | | |
|--|---|
| <input type="checkbox"/> Car | A. Include iron & nickel |
| <input type="checkbox"/> Bike | B. Includes aluminum, barite, calcite, iron, lead, mica, nepheline syenite, nickel, petroleum products, clays, silica, & zinc |
| <input type="checkbox"/> Skateboard | C. Includes gypsum, iron, limestone, clays, & silica |
| <input type="checkbox"/> Concrete sidewalk | D. Include graphite, clays, & silica |
| <input type="checkbox"/> Tools | E. Includes barite, iron, nickel & petroleum products |
| <input type="checkbox"/> Windows | F. Includes aluminum, calcite, iron, mica, nickel, petroleum products, clays, silica, & talc |
| <input type="checkbox"/> Shingles | G. Include nepheline syenite & silica |
| <input type="checkbox"/> Asphalt driveway | H. Include copper & zinc, which make brass |
| <input type="checkbox"/> Bricks | I. Include petroleum products |
| <input type="checkbox"/> Door knob, brass numbers, & mailbox | J. Includes petroleum products & silica |

Area 2: The Kitchen

- | | |
|--|---|
| <input type="checkbox"/> Abrasive cleanser | A. Includes copper, gold, & petroleum products |
| <input type="checkbox"/> Pens | B. Includes iron, nickel, & silver |
| <input type="checkbox"/> Cutlery | C. Include clays |
| <input type="checkbox"/> Microwave oven | D. Includes aluminum, copper, iron, nepheline syenite, nickel, & silica |
| <input type="checkbox"/> Stove | E. Includes silica |
| <input type="checkbox"/> Toaster | F. Includes iron & nickel |
| <input type="checkbox"/> Sink | G. Includes limestone |
| <input type="checkbox"/> Blackboard & plates | H. Includes copper, gold, iron, nepheline syenite, nickel, & silica |
| <input type="checkbox"/> Chalk | I. Includes copper, iron, nickel, mica, chromium, & petroleum products |
| <input type="checkbox"/> Telephone | J. Includes iron, nepheline syenite, nickel, petroleum products, & silica |
| <input type="checkbox"/> Clock | K. Include limestone, mica, petroleum products, clays, silica, & talc |

Area 3: The Den

- | | |
|--------------------------------------|---|
| <input type="checkbox"/> Computer | A. Includes aluminum & petroleum products |
| <input type="checkbox"/> Stereo | B. Includes graphite & clays |
| <input type="checkbox"/> Television | C. Includes aluminum, copper, iron, nickel, & silica |
| <input type="checkbox"/> Books | D. Includes copper, iron, nickel, & zinc |
| <input type="checkbox"/> Desk | E. Includes petroleum products & silver |
| <input type="checkbox"/> Metal chest | F. Made of iron & nickel |
| <input type="checkbox"/> Carpet | G. Includes gold, silica, nickel, aluminum, zinc, iron, petroleum products, & about thirty other minerals |
| <input type="checkbox"/> CD & chair | H. Includes limestone, petroleum products, & selenium |
| <input type="checkbox"/> Camera | I. Include limestone & clays |
| <input type="checkbox"/> Film | J. Include aluminum, iron, gold, nepheline syenite, nickel, petroleum products, silica, & silver |
| <input type="checkbox"/> Pencil | K. Includes gold, iron, nickel, & petroleum products |

Area 4: The Bathroom

- | | |
|---|--|
| <input type="checkbox"/> Jewelry | A. Include iron, limestone, mica, petroleum products, silica, talc. & zinc |
| <input type="checkbox"/> Rug | B. Made of copper, gold, iron, nickel or silver |
| <input type="checkbox"/> Dandruff shampoo | C. Includes clays and petroleum products |
| <input type="checkbox"/> Toilet | D. Includes clays, copper, zinc, & petroleum products |
| <input type="checkbox"/> Plumbing | E. Includes limestone, petroleum products, & selenium |
| <input type="checkbox"/> Tub | F. Made of copper |
| <input type="checkbox"/> Faucets | G. Made of or includes petroleum products |
| <input type="checkbox"/> Tiles | H. Made of clays |
| <input type="checkbox"/> Mirror | I. Includes nepheline syenite, silica, & silver |
| <input type="checkbox"/> Deodorant | J. Includes aluminum |
| <input type="checkbox"/> Bathroom sink | K. Includes fluorite, barite and calcite |
| <input type="checkbox"/> Toothpaste | L. Includes selenium |
| <input type="checkbox"/> Cosmetics | M. Includes clays, iron, & nickel |
| <input type="checkbox"/> Plastic curtain & containers | N. Made of iron & nickel |

Ready to test your Mineral I.Q.?

Return to the [Earth Science page](#) and choose the [Minerals & Metals at Home Game!](#)

How did you do? _____ out of _____ correct!