



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!