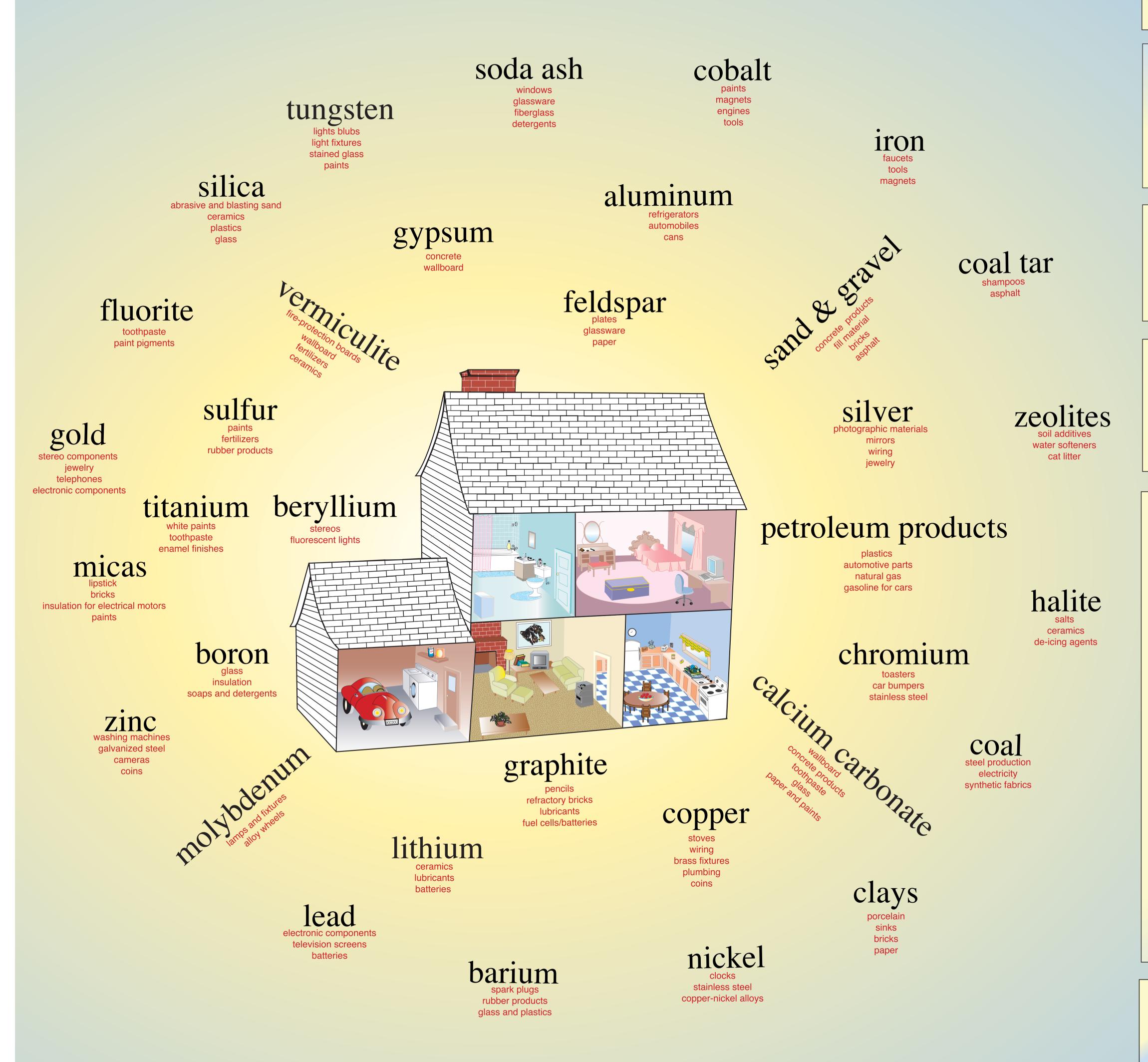


Mineral Resources Out of the ground...into our daily lives



MINERAL COMMODITIES

PRECIOUS METALS

NONFERROUS METALS

LIGHT METALS aluminum beryllium magnesium titanium **BASE METALS**

copper lead zinc

IRON AND FERROALLOYS

chromium cobalt ferroalloy metals iron manganese molybdenum nickel tungsten

FERTILIZER AND CHEMICAL INDUSTRIAL MATERIALS

limestone, dolomite, and lime lithium nitrogen compounds and nitrate phosphate potash salts sulfur

CONSTRUCTION AND MANUFACTURING MATERIALS

CONSTRUCTION MATERIALS concrete products crushed stone

sand and gravel **DIMENSION STONE** granite

limestone marble sandstone slate

FILLERS, EXTENDERS, **PIGMENTS, AND FILTERS**

asbestos barium calcium carbonate clays fluorite gypsum

micas talc vermiculite zeolites

ABRASIVE AND REFRACTORY MATERIALS

clays graphite silica sand

RAW MATERIALS FOR MAKING GLASS boron

feldspar lithium silica soda ash

ENERGY RESOURCES (FOSSIL FUELS) coal tar natural gas

oil shale petroleum and its products tar sand

Categories adapted from Kesler

AGGREGATE —A rock or mineral material used separately and as a filler in cement, asphalt, plaster, and other materials. ALLOY—A substance having metallic properties and composed of two or more chemical elements, of which at least one is a metal.² **ELEMENT**—A substance whose atoms have the same atomic number. FERROALLOY—Any alloy made with iron. METAL—A class of chemical elements, such as iron, gold, and aluminum, that have characteristic luster, are good conductors of heat and electricity, and are opaque, fusible, and generally malleable and ductile. MINERAL—A naturally occurring, inorganic, crystalline solid with a regular chemical composition. ORE—The naturally occurring material from which a mineral or minerals of economic value can be extracted. The term is generally but not always used to refer to materials containing metals and is often modified by the names of the valuable constituent; for example, iron ore? ROCK —A naturally formed material composed of mineral(s); any hard consolidated material derived from the Earth.²

Kesler, S.E., 1994, Mineral resources, economics, and the environment: New York, Macmillian College Publishing Company, Inc., 391 p. Hudson, T.L., Fox, F.D., and Plumlee, G.S., 1999, Metal mining and the environment: Alexandria, Virginia, American Geological Institute, AGI **Environmental Awareness Series 3, 64 p.**

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