**Very Attractive Minerals**

Can you identify the minerals? Which are magnetic?

**[](http://www.mineralseducationcoalition.org/sites/default/files/styles/1024x768_scale/public/magnetite_0.jpg?itok=2sQ8Pztu)Iron Ore (hematite, magnetite, taconite)**

* **Most common metallic element (others: cobalt, nickel)**
* **4th most common element in the Earth (mainly in the core)**
* **98% used to make steel**
* **Largest producers are Russia, Brazil, China, Australia, India, USA**

**[](http://www.mineralseducationcoalition.org/sites/default/files/styles/1024x768_scale/public/shale_0.jpg?itok=ZsTDmfW4)Oil Shale**

* **Contains feldspar, quartz, mica, pyrite, organic matter**
* **¾ of sedimentary rock on Earth’s crust**
* **World’s largest reserve under NW Colorado**
* **Extract oil; slate for paving and roofing**

**[](http://www.mineralseducationcoalition.org/sites/default/files/styles/1024x768_scale/public/coal_0.jpg?itok=S9mfhr1S)Coal**

* **4 types: lignite, subbituminous, bituminous, anthracite**
* **Formed from compressed plant material**
* **One of the world’s major energy sources (23% of all energy consumed and more than half of electrical energy in the USA)**

**[](http://www.google.com/imgres?start=134&sa=X&rls=com.microsoft:en-US:IE-Address&rlz=1I7LENP_enCA476CA476&biw=1813&bih=685&tbm=isch&tbnid=JwIa8302KNppHM:&imgrefurl=http://www.metalaids.net/stainless-steel-coil.htm&docid=BCigvb3NADkYYM&imgurl=http://catalogorigin.wlimg.com/1/35455/full-images/stainless-steel-coil-850698.jpg&w=400&h=266&ei=02TYUuKrL-nOyQGG8IGAAg&zoom=1&ved=0CJIBEIQcMC84ZA&iact=rc&dur=370&page=6&ndsp=29)Steel**

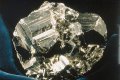
* **Made from iron ore, limestone, and coal alloyed (covered) with carbon to strengthen it**
* **For building, transport, electronics, medicine, paint, ink, cosmetics, fertilizer**

[](http://www.mineralseducationcoalition.org/sites/default/files/styles/1024x768_scale/public/basalt_0.jpg?itok=jg1pnpVt)**Basalt**

* **Formed from lava from a volcano**
* **Underlies more of the earth’s surface than any other rock**
* **Largest producers India, Russia, Iceland, Canada, China, USA**
* **Used for road base, in concrete, railroad ballast, filter stone in drain fields, floor tiles, monuments**

**Copper**

* **Lead producers Chile, USA, Indonesia**
* **Malleable (can be hammered and molded into shapes) and ductile (drawn into wire)**
* **Used for electrical wiring, electronics, plumbing, tubing, machinery, coatings, coins, feed, fertilizer**

**[](http://www.mineralseducationcoalition.org/sites/default/files/styles/1024x768_scale/public/ironpyrite2.jpg?itok=hCVOhJhT)Pyrite**

* **Used as jewelry, to manufacture sulfuric acid and sulfur dioxide, pellets of pressed dust used to recover iron, gold, copper, cobalt, nickel**

***Many thanks to SME’s MEC for the activity, information, and supplies. To learn more and access free educational material, visit*** [***www.MineralsEducationCoalition.org***](http://www.MineralsEducationCoalition.org)***.***