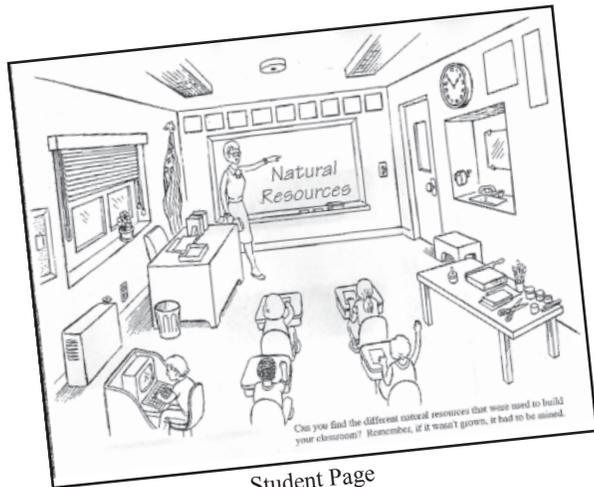


A CLASSROOM FULL OF RESOURCES

Objective: To reinforce the concept that natural resources are all around us.



Student Page

A Few Facts

Natural resources are substances we obtain from the land, water, and air around us.

Our food, shelter and amenities of life – cars, bicycles, tents, baseballs and bats – all are made from our natural resources.

Look around the room you are in. The odds are very high that the majority of what you see is made from mineral products. In schools, unless it is a hardwood floor, it will be made of various rocks and minerals. Walls will almost always be brick or concrete block, sometimes drywall (gypsum) or wallpaper (almost always a vinyl). Wood is usually a major part of most desks and tables, and doors. There can be a lot of variety in the ceiling materials, but rest assured they were either grown or mined.

If your students seem reluctant, see "Your House Comes From A Mine" on page 21.

Read More About It!

Check out these children's books for your class:

- *Prairie Visions: The Life and Times of Solomon Butcher* by Pam Conrad; Harper-Trophy
- *What's the Big Idea, Ben Franklin?* by Jean Fritz; Putnam Publishing Group
- *If You Sailed on the Mayflower in 1620* by Ann McGovern; Scholastic
- *The Erie Canal* by Peter Spier; Doubleday
- *The Evolution of Useful Things* by Henry Petroski; First Vintage Books

Classroom Experience

Label as many resources as possible that are found in the classroom.

Divide students into several teams. Assign an area of the classroom (or wherever you choose) to each team and provide each group with peel-off removable sticky labels.

Ask the students to label all of the natural resources in their designated areas and to list each item they label. They can then cooperatively sort the list into common components, such as wood, metals (steel or aluminum), minerals (brick or concrete blocks), or synthetics.

Suggest they do the same at home and discuss the different materials in each student's home – tile vs. linoleum, brick vs. wood, carpet vs. wood floors, metal vs. wooden window and door frames, etc.

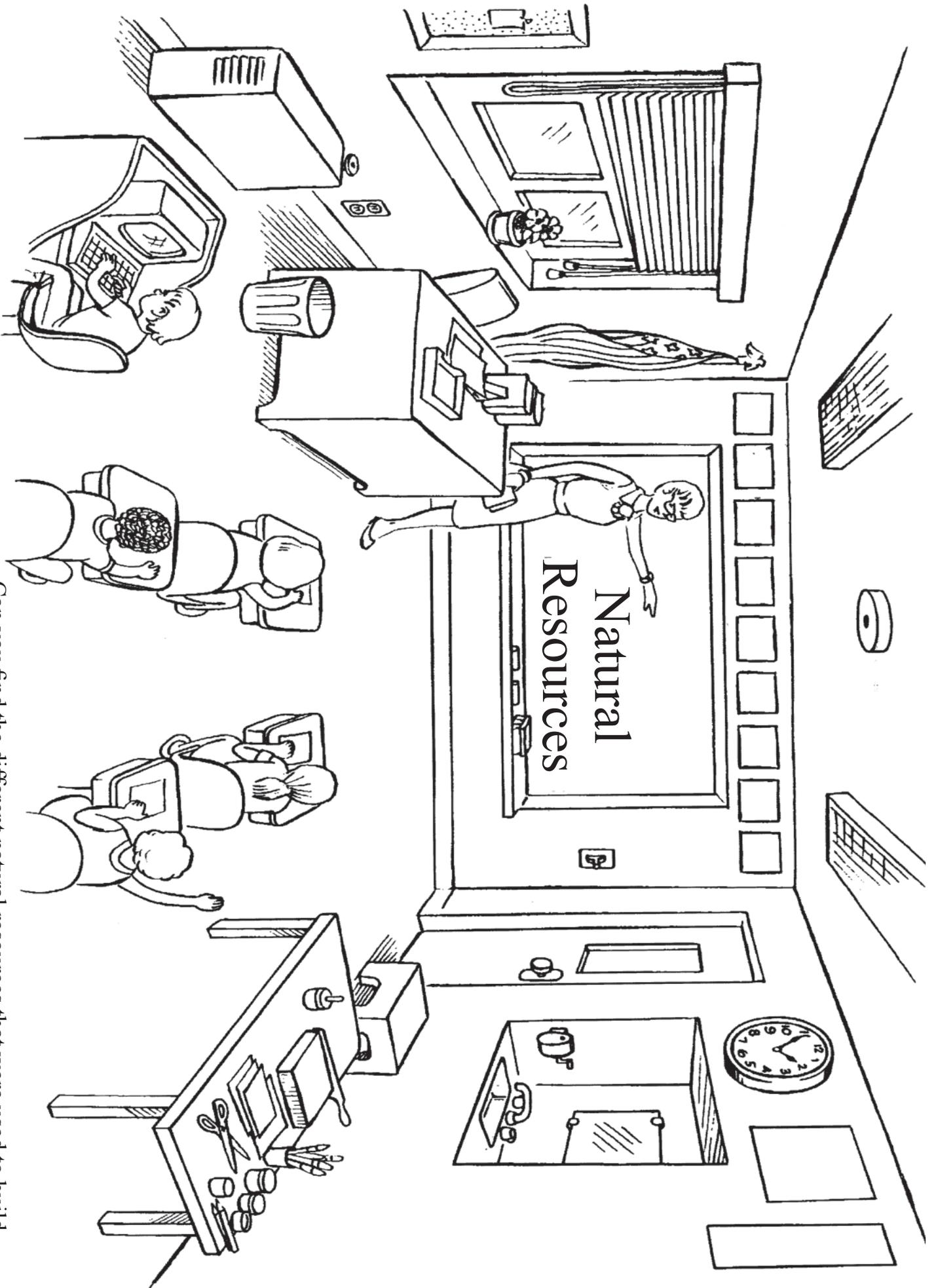
Integrating the Curriculum

1. Where does electricity come from? How do we harness it?
2. What is a board foot of lumber? Suggest that the students interview a few local builders or carpenters and report back to the class on the skills these professionals feel they need.
3. What effect do the various climactic changes have on construction of houses and buildings in any one area. How are buildings made "earthquake-proof?"
4. Why do we paint our houses? What do we use?
5. What are computers made of? Computers make a great themed study from manufacture, to programming, to use in schools, businesses and the home.



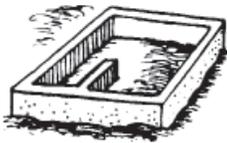
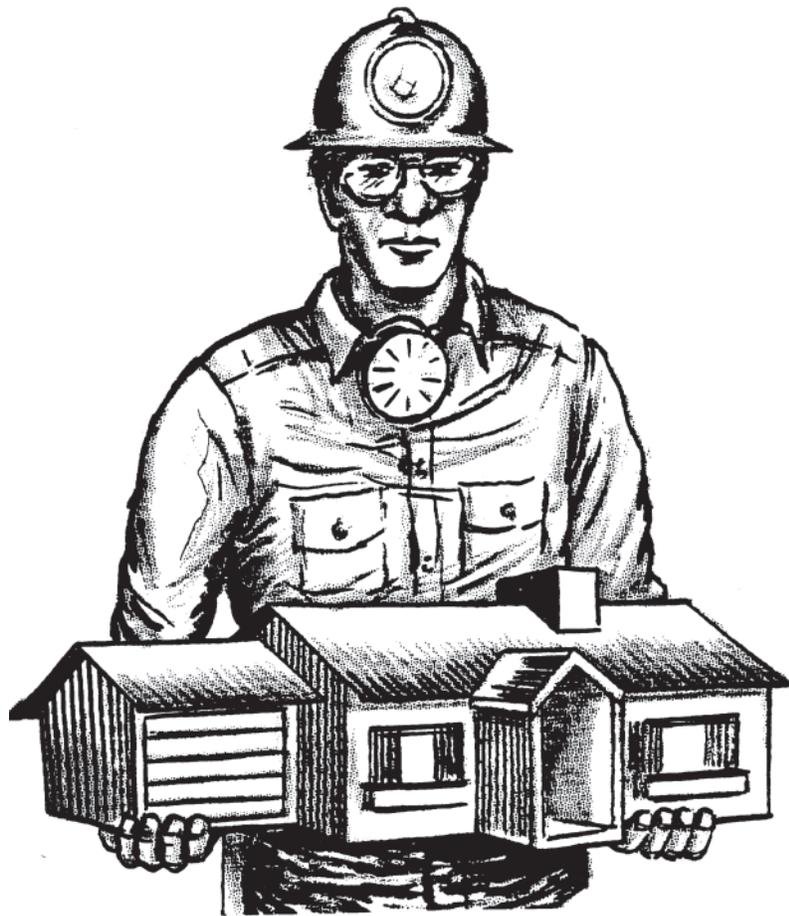
Dig A Little Deeper

- Draw the cafeteria and label its natural resources.
- Find out what minerals used in your classroom are mined in your community, state or nation.
- Study a bicycle. How many different materials are needed to make it? Why is it important to use a strong material in the frame?



Can you find the different natural resources that were used to build your classroom? Remember, if it wasn't grown, it had to be mined.

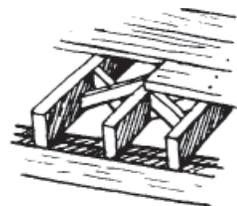
Your House Comes From A Mine



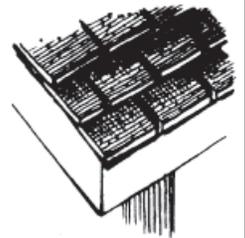
The **foundation** and **sidewalk** are probably concrete (*limestone, clay, shale, gypsum and aggregate*) and the **driveway** is made of concrete or asphalt (*petroleum and aggregates*).



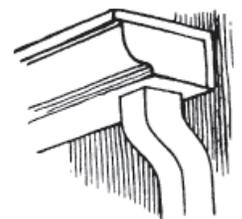
The **exterior walls** may be of *concrete block, brick (clay), stone or aluminum siding*, all provided by mining.



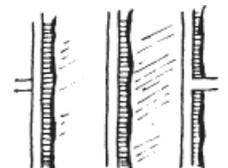
The **lumber** in the **walls, roof and floor** will be fastened together with nails and screws (*iron ore and zinc*).



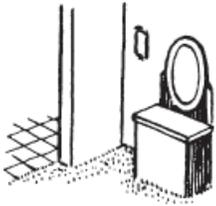
The **roof** may be covered with asphalt shingles (*petroleum and a variety of colored sands*), fiberglass (*silica sand*), clay, or corrugated *iron*.



The **gutters** can be made of galvanized steel (*iron and zinc*), aluminum (*bauxite*), or plastic (*petroleum*).

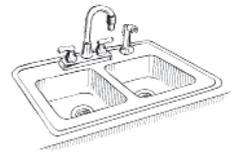


The **insulation** in the walls may be glass wool (*silica, feldspar, trona*) or expanded *vermiculite*.



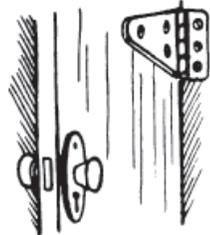
The **interior walls** are usually wallboard, made of *gypsum*.

Your **plumbing fixtures** may be made of brass (*copper and zinc*) or stainless steel (*iron, nickel and chrome*).



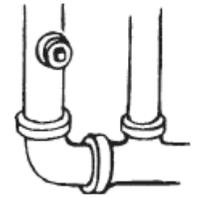
Your **windows** are made of glass (*iron, silica, sand and feldspar*).

Your **toilets, sinks and bathtubs** are made of porcelain (*clay*) over *iron*, or plastic (*petroleum*).



Your **door knobs, locks and hinges** are brass or steel (*copper, zinc, iron ore, and alloys*).

Your **sewer system** is made of *clay* or *iron* pipe (plastic pipes are made from *petroleum*); if you have a **septic tank** it is *concrete* and the leach field is filled with *sand* and *gravel*.



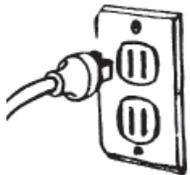
Your **fireplace** may be made of *rock, brick*, or you may have a wood/coal burning **stove** (*steel, iron, alloys, etc.*). Your **furnace** is made of steel (*iron and alloys*).

The **carpet** in your home is made from synthetic fibers (*petroleum*). The back is filled with *limestone*, even if your carpet is made of wool.



If your house is painted, **paint** is manufactured with *mineral fillers* and *pigments*.

And finally, your **mortgage** or **rental contract** is written on paper made from wood or cloth fibers. The fibers are filled with *clay* and *other minerals* to determine its color and texture.



Your **electrical wiring** is of *copper* or *aluminum* (*bauxite*).

Your House Came Out of the Ground

Find Out

Which of the materials used to build your house came from your community or state? Can you discover which other states, and even other countries, were involved in producing the materials that were necessary to build your house?