

Building Material Textures

How can we describe the way building materials feel?

Theme

This lesson explores how building materials feel to the touch. Using common construction items, students will learn new vocabulary as well as descriptive adjectives for those objects.

Student Objectives

- gain and use vocabulary of common building materials
- gain and use vocabulary of descriptive adjectives
- feel and observe the built environment
- describe ways in which the materials might be used in a building

Activities

- feel and describe building materials hidden inside black plastic bags
- scavenger hunt to locate, feel, and describe building materials
- sort and match building materials based on their descriptions
- write / dictate, explain, and draw pictures of how these materials might be used in a building

Type

- indoor, classroom activities
- *optional*: outdoor, walk-around-the-school activity

Timeframe

flexible

Materials

- black plastic garbage bags with cinch ties (one for each different material sample)
- lined writing paper
- **Handout A** - cards printed with descriptive words
- Gather two samples of those materials you choose to work with.
A possible collection could include:
 - small wooden block or board
 - metal cable or telephone wire
 - brick
 - asphalt roofing shingle
 - metal door hinge
 - pipe (metal or plastic)
 - sand (a few cups)
 - plexi-glass piece
 - gravel or small rocks
 - Styrofoam® insulation
 - nails (without a sharp point)
 - piece of carpet
 - bolts, nuts, and metal washers



Vocabulary

See Materials list.



Interdisciplinary Connections

Social Sciences

Invite a construction worker (dressed in their work clothes) into your classroom and have them demonstrate how the different building materials or tools are used. Have students draw or dictate / write about what they learned from the visit. Send pictures and thank you notes to the construction worker.

Fine Arts

Use crayons to make rubbings on paper of the building materials studied in this lesson. Or paint the objects with tempera paint and use them to make prints and patterns on paper.

Fine Arts

Using a thick black marker, draw the outline (or have students draw a crayon outline) of each building material. Mix up the outlines and display them for the class. Let students match the outline to the original.

Resources

Building, Elisha Cooper. New York: Greenwillow Books, 1999.

How a House is Built, Gail Gibbons. New York: Holiday House, 1990.

My Five Senses (Let's Read and Find Out Books), rev. ed., Aliki. New York: Crowell, 1989.

Tools, Ann Morris. New York: Lathrop, Lee & Shepard Books, 1992.

Touch (Explore Your Senses), Laurence P. Pringle. New York: Benchmark Books, 1999.

Materials (continued)

- small piece of concrete
- screws (without a sharp point)
- doorknob
- small ceramic tile (textured or smooth)

Teacher Prep

- gather building materials
- put one of the samples of each type of building material into a separate plastic bag
- make several photocopies of **Handout A** and cut out word cards

Background Information for Teacher

The Creative Reuse Warehouse (CRW) is a local resource that distributes material destined for landfills to Chicago-area educators and artists. The Warehouse not only reduces the amount of waste headed for landfills but also teaches the benefits of reuse. Its inexpensive inventory changes constantly, as patrons stock up on everything from carpet and wallpaper samples to plastic containers to ceramic tiles. Typically, you can fill a bag with supplies for \$3.00. CRW is located at 222 East 135th Place, Chicago. Telephone 773.821.1351 www.resourcecenterchicago.org

Suggestions for Language Arts Activities

- As a class, walk around the classroom or school and identify and name various building materials you can see. Have students close their eyes, touch these materials, begin to describe them, and eventually name them.

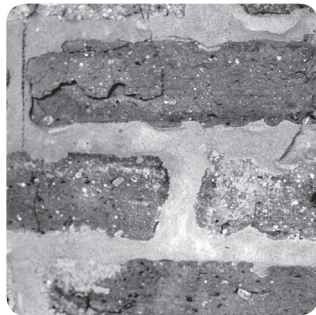
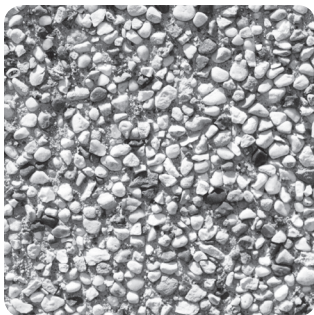
Encourage students to use descriptive words regarding:

- texture - Does it feel smooth, rough, soft, hard, flat, bumpy, fuzzy, slippery?
- shape - Does it feel round or square?
- weight - Is it heavy or light?
- temperature - Is it warm or cold to the touch?

- Use the walk around the classroom or school as a scavenger hunt. Ask students to locate one material that is bumpy, one that is soft, one that is slippery, etc.
- “Feeling bag” activity using the two sets of identical building materials collected: Hide one set of building materials from view by placing a different item inside each plastic bag. The second set of building materials should be in plain view in front of the class. Demonstrate for the class how you reach into a bag, carefully feel the object, and describe the object. As part of the demonstration process, say, for example: “This object has corners. It feels like a square. It is smooth and hard.” Encourage students to use descriptive words rather than simply guessing what the object is.

You may wish to have one student at a time come up to reach inside the bag to get started and gather a list of descriptive words together as a class. Record the words either on the board or with a tape recorder.

- Second variation of the “Feeling bag” activity using the two sets of building materials collected: Set up several stations of black plastic bags around the room. Put one material in each bag. Place the corresponding materials on a nearby table. Have students reach into the bag and describe the material to each other, then match the contents of the bag with the material they see on the table.
- After students have described the items in the black plastic bags, pull out all the items and ask students to brainstorm how or where they might use the building material. Could it be used on the floor, the walls, or the ceiling? Inside or outside?
- After all the objects are displayed, encourage students to use comparatives and superlatives to compare and contrast the materials. (Example: The wood feels harder than the Styrofoam®, but feels softer than the brick.)
- Use the descriptive word list provided on **Handout A** to make word cards. Talk about and sound out the words together as a class. Students can either match the word with the texture of the object they feel, tape the cards on various building materials around the room, or use the cards to name opposites.
- A sorting exercise: Place two different word cards, such as “rough” and “smooth”, on the desk or floor and have students work in pairs to sort the different building materials into two piles.
- Have students imagine they are building a home. Teach the names of the building materials they have been describing. Where would they use these various materials? Encourage them to use the adjectives they have learned in the “feeling bag” exercise. (Example: Where would you use smooth shiny tiles? Where would you use bumpy hard bricks?) Have them choose 3 or 4 items for constructing a new building. Discuss what they chose and why they chose it. Have students write some of the new descriptive words they have learned and draw pictures about this new building.
- Observe a building under construction near your school. Once back in the classroom, have students write vocabulary words or draw pictures of the building materials they have seen.
- Read or retell the story of the *Three Little Pigs*. If the students were building new houses for the pigs, what building materials would they use? Have students choose three building materials they have learned about, write the vocabulary words, and draw pictures of new homes for the pigs.



Illinois Learning Standards and Benchmarks

3B Compose well-organized and coherent writing for specific purposes and audiences.

3.B.1b Demonstrate focus, organization, elaboration and integration in written compositions.

3C Communicate ideas in writing to accomplish a variety of purposes.

3.C.1a Write for a variety of purposes including description, information, explanation, persuasion and narration.

4A Listen effectively in formal and informal settings.

4.A.1c Follow oral instructions accurately.

5C Apply acquired information, concepts and ideas to communicate in a variety of formats.

5.C.1b Use print, nonprint, human, and technological resources to acquire and use information.

Handout A

sharp

dull

fuzzy

slippery

smooth

rough

cold

warm

soft

hard

round

square

flat

bumpy

thin

thick



cut along the dotted lines