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# "CONSTRUCTION MATERIALS & METHODS"

## TO THE TEACHER:

This exercise comes from the Ontario Historical Society's **"Discovering Your Community"**.

This activity allows students to discover what materials and methods are used in the construction of different buildings and structures.

Learning about different types of building materials and construction methods provides students with a unique way to study their community and how it developed (e.g. people, natural resources, economics). "Construction Materials & Methods" is geared for older students (grades 4-7), and would work well in a unit dealing with local history and economics.

## LEARNING OBJECTIVES:

- learn what different buildings are made of
- discover various construction methods
- gain a sense of how the community developed
- develop a basic understanding of how building materials and types reflect change in the community.

## WHAT YOU WILL NEED:

- pens, pencils, clipboard
- "Building Materials" & "Drawing Building Parts" worksheets (4-7)
- parental supervision-for the tour

## ACTIVITY:

(grades 4-7)

Step 1

Discuss with the class the different types of construction materials they have seen or know about. Discuss where these materials are used (e.g. brick: wall). Hand out the "Building Materials" worksheet to be completed in class. Ask the class if these are considered modern or historic building materials. Ask the class to create a timeline of when they think the building materials came into use. The materials used in construction often indicate the type of resources available at different times.

Discuss with the students what they think it takes to make a building (locating materials, hiring workers, finding a site, etc.). Invite a construction expert (possibly a parent) to share with the class how different structures are made. If able, tour an architect's office or a building under construction to see in a "hands-on" way the different steps taken to put a building together.

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Often styles of construction or types of embellishment can indicate the influx of skilled craftsmen such as stonecutters and bricklayers, or can reflect the influence of a popular style or personage.

- Step 2 Arrange a guided tour of a public building in the community. This can be the town hall, a museum, court house or railway station. If possible, take the students to a historic or heritage building-this will provide them with a more interesting contrast in building materials and methods.

Hand out the "Drawing Building Parts" worksheets to the class along with clipboards. Explain to the group that they will fill out the first half of the worksheet, "Other Building: \_\_\_\_\_", while on the tour and the second half at home. Have the tour guide take the class around the building pointing out different materials and methods used during construction.

**NOTE:** *it might be useful to explain to the guide what the tour will be about. If possible, give the tour guide a copy of the worksheets so they will know what the students are looking for.*

- Step 3 After the class has compared their homes to the building seen on the tour, ask them to discuss the similarities and differences in class.

Some discussion questions to think about:

1. What are the possible reasons for the differences in construction materials & methods (e.g. natural resources available, changes in the economy, changes in building styles, changes in technology)?
2. How do the materials relate to the function of the building (e.g. large glass windows used for displays in stores)?
3. Are there any construction materials or methods used in the community that make it distinctive?
4. Can building materials and methods indicate how or why a community developed?
5. Can the location of a building affect what it's made of and how it's built (e.g. snow houses during the winter in the Arctic)?

**MORE THINGS TO DO:**

**A. Model Town (grades 4-7)**

As a fun follow-up activity, have the class construct models of either their own homes, the building they toured or another structure (e.g. bridge or tower). See "Model Town" included in this kit for construction ideas.

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# "BUILDING MATERIALS"

NAME: \_\_\_\_\_ DATE: \_\_\_\_\_

Name a building or structure in the community that uses one or more of the following construction materials.

1. Wood: \_\_\_\_\_
2. Brick: \_\_\_\_\_
3. Stone: \_\_\_\_\_
4. Iron: \_\_\_\_\_
5. Steel: \_\_\_\_\_
6. Concrete: \_\_\_\_\_
7. Stucco: \_\_\_\_\_
8. Slate: \_\_\_\_\_
9. Glass: \_\_\_\_\_
10. Stained Glass: \_\_\_\_\_
11. Plastic: \_\_\_\_\_
12. Sheet Metal: \_\_\_\_\_
13. Tile \_\_\_\_\_

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# "DRAWING BUILDING PARTS"

NAME: \_\_\_\_\_ DATE: \_\_\_\_\_

Draw the parts of the buildings listed below:

	MY HOME	OTHER BUILDING: _____
OUTSIDE WALLS  Do your drawings to the right of this box.		
What are they made of?		
ROOF  Do your drawings to the right of this box.		
What shape is the roof?  Is it flat or sloping? Does it keep rain or snow off?		
What can you see on top of the roof?		
Can you see windows in the roof? What does this mean?		

	MY HOME	OTHER BUILDING: _____
<p>WINDOWS</p> <p>Do your drawings to the right of this box.</p>		
<p>How many windows can you see?</p>		
<p>How many panes of glass are in each window?</p>		
<p>OUTSIDE DOORS</p> <p>Do your drawings to the right of this box.</p>		
<p>How many doors can you see?</p>		
<p>Is there a main door? If there is, how can you tell?</p>		
<p>What do you think it is made of?</p>		