

EDUCATING ELEMENTARY CHILDREN THROUGH ARCHITECTURE



AN INTERACTIVE ARCHITECTURE LEARNING UNIT FOR ELEMENTARY STUDENTS

UTAH CENTER *for*
ARCHITECTURE

LESSON 04 - COMPONENTS/BLOCK

TIES TO CURRICULA (5TH GRADE - VISUAL ARTS)

Visual Arts Standard 5.V.CR: Students will generate artistic work by conceptualizing, organizing, and completing their artistic ideas. They will refine original work through persistence, reflection and evaluation.

Media Literacy: Help students develop the habits of inquiry and skills of expression that they need to be critical thinkers, effective communicators, and active, digital citizens in today's world.

SUMMARY

A typical building is made of many different components. Various building elements often come together to evoke certain moods, emotions, or feelings. Some of the tools designers use to express these feelings include rhythm, texture, pattern, symmetry, etc. Building elements will often give clues to a building's function and use.

MATERIALS

Classroom/Teacher:

- additional classroom volunteers may be solicited for Lesson Activity 1 (coordinate field trip requirements with architect/volunteers) **
- map of planned class walk **
- clipboard and pen (for each group) **
- scissors, tape, glue, colored paper
- computers with internet access or reserved media center time **

Architect/Volunteer:

** optional

- Handout 4.1 (copies for each student)
- graphics of building elements including doors, windows, roofs, stairs, window treatments, decoration, etc.
- graphics of buildings for visual scavenger hunt (approx. 12 images for variety) **
- books, magazines, etc. that can be cut up/ marked up/ripped out
- "Post-It" notes, tabs, or stickers **
- Building Typology Sheets from Lesson 02 (extra copies just in case) **
- blank sheet of paper (for each student)

LESSON DISCUSSION - COMPONENT COMPOSITION (10 MINUTES)

Discuss with the students the many aspects of building elements and a building's facade. Make sure to touch upon different door (e.g. garage, sliding, drawbridge, revolving, etc.), window (e.g. stained glass, double hung, clerestory, porthole, etc.), and roof (e.g. gable, shed, dome, etc.) types, as these things will likely be used in their buildings. You can draw or show graphic representations of these elements, emphasizing that they often fulfill a certain function (e.g. to invite, protect, decorate, let in light, etc.). You might also have a short discussion about how these elements can be arranged to create a rhythm, texture, or pattern in a building, creating a certain mood or feeling.

Express that the presence or arrangement of architectural components can often give clues to what happens in a building. Draw on the board a few simple building silhouettes like below. Have the students guess what type of building each might be. Have them reveal the clues they see that suggest the building's type (e.g. a rhythm of columns gives a sense of formality that might be appropriate for a government building, bank, or museum; a small building with sloped roofs might suggest a residence in a cold climate with snow). Ask leading questions to guide them like 'What might go in and out of this door?' or 'Why does this [apartment] building have so many windows?'



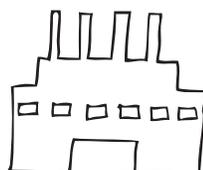
Bank, Museum



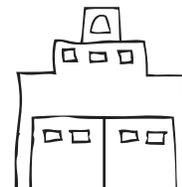
Church



House



Factory



Firehouse



Apartment Building

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LESSON ACTIVITY 1 - ARCHITECTURAL SCAVENGER HUNT

Have students get into their box city groups and give each student **Handout 4.1**. The groups will be doing a visual scavenger hunt. Teachers and Volunteers must coordinate to select the option below that best works for their class.

Option 1a (45 MINUTES): Students will go on a small outdoor field trip and do a scavenger hunt along a street in the nearby neighborhood (coordinate this route beforehand). Time permitting, go over Handout 4.1 with them in advance, and be prepared to help them with it in the field (possibly do a sample building with all students present). The student groups will fill out a form for as many buildings on the street they have time for. Have them write in their group number or name at the top, and to make their best guess when they're not sure about a typology. Keep in mind that students will likely not be able to cover more than 1 mile or so within the class period.

Option 1b (20 MINUTES): Students will do a virtual scavenger hunt in the classroom. Have images of buildings projected (perhaps three or four at a time) or images printed out. You might even consider going on a virtual street tour using Google Earth or similar. Time permitting, go over Handout 4.1 with them in advance, and be prepared to help them with it as needed (possibly do a sample building together to begin). Have students choose buildings/images as a group and fill out a form for as many buildings as they have time for. Have them write in their group number or name at the top, and to make their best guess when they're not sure about a typology.

BOX CITY ACTIVITY - BUILDING COMPONENTS (20 MINUTES)

Have the students remain in their groups to continue work on their buildings. Instruct them to further design their buildings and to start thinking about roof type, window, and door placement. Refer to the different building components that were discussed in the Lesson Activity. Have students get out their list of building typologies given to them at the end of Lesson 02 (have extra copies for students that may have lost theirs). Using their list of assigned building typologies, have the students use "Media Center" resources (e.g. internet, books, magazines, etc.) to find images of their typologies. Have students identify their "favorite" images using "Post-It" notes or creating a folder of images. Students should be thinking of shapes, materials, scale, colors, etc. they want to use for their buildings in the Box City. Have students draw elevations with ideas for their buildings. They may also wish to start on construction of their buildings.

RESOURCES

Architecture in Education: A Resource of Imaginative Ideas and Tested Activities

Foundation for Architecture, Philadelphia; Edited by Marcy Abhau with Rolaine Copeland and Greta Greenberger

Architecture is Elementary: Visual Thinking Through Architectural Concepts by Nathan B. Winters

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HANDOUT 4.1

GROUP NAME: _____

INSTRUCTIONS

For all of the building parts below, **CIRCLE** the one that best fits the building you are looking at. If you don't see the exact part, make your best guess and circle the one that comes the closest.

A. SHAPE OF BUILDING?

1 Story

1 1/2 Story

2 Story

3 Story

Skyscraper

B. WHAT ARE THE WALLS MADE OF?

Wood

Brick

Stone

Concrete

Metal

Tile

C. WHAT DO MOST OF THE WINDOWS LOOK LIKE? (ONLY PICK ONE)



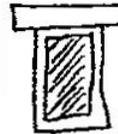
Cross



Multiple pane



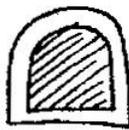
Diamond pane



Lintel



Gothic



Arched



Fan light



Palladian



Circular/octagonal



Paired



Ribbon

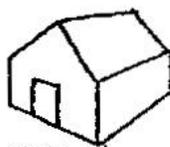


Large surrounded by small panes

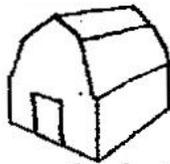


Small panes over large

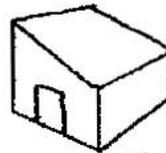
D. WHAT DOES THE ROOF LOOK LIKE?



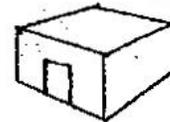
Gable



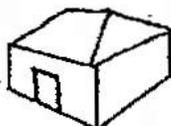
Gambrel



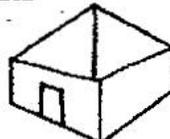
Shed



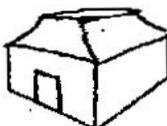
Flat



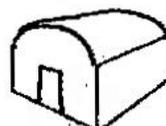
Hip



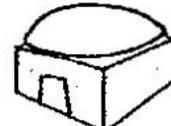
Pyramidal



Mansard



Vault



Dome

From the list below, **CIRCLE** the typology that best fits the building you are looking at.

House

Bank

Barber/Salon

School

Train Station

Shopping Mall

Apartment

Library

Playground

Police/Fire Station

Office Building

Warehouse

Bookstore

Theater

Airport

Restaurant

Museum

City Hall

Gas Station

Grocery Store

House of Worship

Sports Arena

Hotels/Motels

Hospital