

EDUCATING ELEMENTARY CHILDREN THROUGH ARCHITECTURE



AN INTERACTIVE ARCHITECTURE LEARNING UNIT FOR ELEMENTARY STUDENTS

UTAH CENTER *for*
ARCHITECTURE

LESSON 05 - PLANNING/NEIGHBORHOOD

TIES TO CURRICULA (SOCIAL STUDIES)

Social Studies - Students will read and compare maps of various cities. They will identify various man made structures and analyze their purpose and influence in the creation of communities and civilizations. They will understand how physical geography affects the growth and organization of a city.

SUMMARY

This lesson helps students develop an understanding of neighborhood and city planning. Students learn cooperation and teamwork through group discussions, negotiation and joint research. This is similar to the "real world" construction processes of planning and zoning commissions, public hearings, historical commissions, permitting processes, etc.

Architects design on many different scales from the smallest space to the largest city. However, no matter what the project size, the concepts of design still apply. Organization dictates how the city will grow and change over time. The well-being and attitudes of those who live there are affected by its organization. The goal of this lesson is to introduce the students to the organization of cities. Through these simple exercises the students will begin to understand how a building fits with a city plan and natural environment, the concepts used in city planning, and how to use those ideas to describe cities.

MATERIALS

Classroom/Teacher:

- pencils
- box of crayons, colored pencils, or markers (for each group)
- scissors, tape, glue, colored paper
- butcher paper

Architect/Volunteer:

- Handout 5.1 (copies for each student)
- large printout(s) or projected image(s) of example city map/organization types
- 8 1/2" x 11" copy of 9 different example city maps (one for each group)
- image (projected and/or printed) of class Map
- 30"x30" neighborhood/block cardboard bases

** optional

LESSON DISCUSSION - WHAT DEFINES A NEIGHBORHOOD? (10 MINUTES)

Ask students to describe a famous neighborhood they know about. (e.g. Sesame Street, Mr. Rogers, Sugarhouse, the Avenues). Have them be as detailed as possible. Ask (or write on the whiteboard) the following questions:

- "What makes a neighborhood?"
- "What do neighborhoods have in common?"
- "How does a neighborhood differ from a town or a city?"

You may want to have a "brainstorming session" where students call out words/phrases and the teacher makes a list on the whiteboard. These questions help students define the characteristics of a neighborhood. You also might read a narrative description of someone's idea of neighborhood.

LESSON ACTIVITY 1 - NEIGHBORHOOD AND CITY PLANNING (20 MINUTES)

Organize the students into their Box City groups. Distribute **Handout 5.1** to each student and a different example city map and coloring utensils to each group. Review the organizational concepts described on the handout with the students. Next, hold up the large printout of your example city map. Discuss how to recognize planning concepts like those mentioned in the handout (nodes, paths, edges, open space, density, etc.). Ask questions like "Where are the neighborhood edges? How do you recognize a node? Are there any open spaces? How does automobile traffic flow? Where are the bike paths and hiking trails? Where are the natural land forms? (e.g. rivers, lakes, cliffs, etc.)." Continue the discussion until you feel the students have a general grasp of these concepts.

Have the students answer each question and color their example city maps as instructed in Handout 5.1. You may wish to complete the handout together as a class using your example city map for reference. Wander through the class and answer any questions that they may have.

LESSON 05 - PLANNING/NEIGHBORHOOD

BOX CITY ACTIVITY - MAPPING IT OUT (30 MINUTES)

In this session, students will need to begin laying out and coordinating their different neighborhood blocks. Show them their class assigned Map and help them to understand the different elements (road connections, railroad tracks, landscape elements, etc.). You will need to decide as a class things like the width of roads and railroads, whether/how much tree and water areas are to be altered, will there be bike paths and sidewalks, how will people move through their city, where should prominent city features be placed, etc.

Distribute the cardboard bases to each group and, time permitting, cover the bases with butcher paper to allow for a solid color base in preparation for buildings, roads, and trees. Have the students begin to work on the layout of their section of the Box City. They should work on the placement of their buildings, laying out roads and utilities, providing open spaces, biking trails, defining nodes, thinking about the "street edge", etc. Students must decide how they are going to organize and design their buildings/boxes to construct their assigned typologies. Teachers and Volunteers may give the students "artistic license" in how they decide to design (cover) their boxes (material, color, texture, etc.) or may choose to have all students design and execute their creations similarly. Remember, buildings should be built to approx. $\frac{1}{4}$ " = 1'-0" scale (use the pipe cleaner person from Lesson 01 for reference). It will be helpful when the students start building the form of their buildings with the boxes to have them place the buildings on the base to ensure what they are making is not too large. Use the rest of the class time to allow the student's to work on their Box City blocks and buildings. It is likely more class sessions or outside class time will be needed to work on this.

Pro Tip: Remember that the cities will need to be transported for display and take down. It is helpful to decide early on if the buildings and site elements will be adhered directly to the bases or how they can be easily moved and set up after transported.

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

Architecture: Form, Space, and Order by Francis D.K. Ching

Images of the City by Kevin Lynch

The Death and Life of Great American Cities by Jane Jacobs

Suggested research websites:

Great Buildings Online <http://www.greatbuildings.com/>

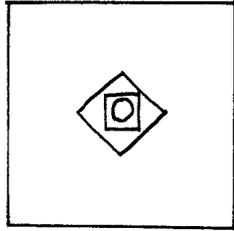
Jane Jacobs Video <https://www.youtube.com/watch?v=Z99FHvVt1G4>

HANDOUT 5.1

VOCABULARY SHEET - CITY ORGANIZATIONS

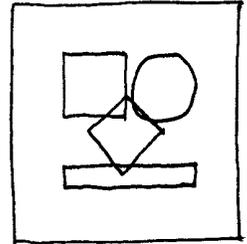
Centralized Organization

A central, dominant space about which a number of secondary spaces are grouped, the central unifying space is generally large enough in size to gather a number of secondary spaces around its perimeter.



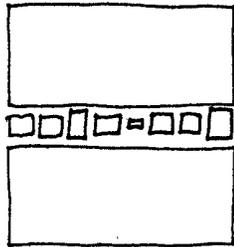
Clustered Organization

Spaces that are grouped together to create other spaces that are shared between the two parts, this repeats as many times to create a cluster, these parts can be the same or they can be different.



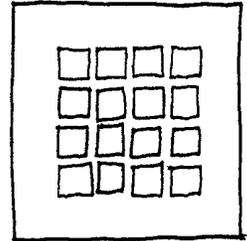
Linear Organization

A linear sequence of repetitive spaces, these spaces can be the same or they can be different and they can express a direction up, down, left, right, or angled.



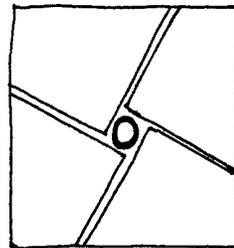
Grid Organization

Spaces organized within a grid pattern, this pattern is usually all the same size but there can be a few variations to the grid pattern.



Radial Organization

A central space from which linear organizations of space extend in a radial manner, the radial organization starts in the center and reaches out while the centralized organization starts out and comes in.



INSTRUCTIONS

Using the picture given to your group, answer the following questions.

1. From the five types of city organizations, what organization is this city map? Write your answer below. (There may be more than one - use your vocabulary sheet to help you).
2. Where are the neighborhood edges? Outline these in black.
3. Do you see any parks or open green spaces in the city? Color these areas in green.
4. Are there any city nodes? Color these with orange.
5. Find the areas of automobile traffic flow? Color these in red. Is there a combination of large and small roads?
6. Are there any natural landforms that are important to this city? (lakes, rivers, etc.) Color them in blue and list them in the space below.
7. Where would you like to live in this city? Write your first name at that spot on the map.