DOCUMENT RESUME

ED 472 977 SO 034 488

TITLE	Picture This Curriculum.
INSTITUTION	Center for Understanding the Built Environment, Prairie Village, KS.
PUB DATE	2002-00-00
NOTE	51p.
AVAILABLE FROM	Center for Understanding the Built Environment, 5328 W. 67th Street, Prairie Village, KS 66208. Tel: 913-262-8222; Fax: 913-262-854. For full text: http://www.cubekc.org/lessons.html.
PUB TYPE	Collected Works - General (020) -- Guides - Classroom - Teacher (052)
EDRS PRICE	EDRS Price MF01/PC03 Plus Postage.
DESCRIPTORS	Academic Standards; *Built Environment; *Community Programs; Creative Activities; Land Use; Physics; Playgrounds; School Community Relationship; Secondary Education; Social Studies; *Student Participation; *Student Projects; Teacher Developed Materials; Urban Planning

ABSTRACT

This curriculum packet of teacher-developed lesson plans, intended for use with students in middle and/or high schools, focuses on student involvement in community projects. The first lesson plan, "Physics Park" (Scott McQuerry), aims for students to construct a playground and the examine the physics behind the playground's equipment. Students use the map and picture found on this lesson's Web site as a resource in the playground's construction. The lesson plan suggests time allotment; provides an overview; indicates subject matter; cites learning objectives; addresses standards and Center for Understanding the Built Environment (CUBE) components; notes materials needed; describes preparation time for teachers; presents an introductory activity, a learning activity, and a culminating activity; discusses evaluation/teacher reflection; suggest cross-curricular extensions and community connections, and contains a sample grid pattern, a photo of the playground area, seven images, and additional information and activities. The second lesson plan, "Comparing Edible Communities" (Scott McQuerry), has students explore the components of a community by creating analogies between aspects of a community and ingredients within a recipe. They demonstrate the cohesion among community areas as they attempt to create cookies from recipes that have missing ingredients. The second lesson plan offers the same type of detailed procedures for classroom implementation as the first lesson plan. (Contains 6 recipes, 3 slide photos, and 16 images.) (BT)

Picture This Curriculum

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2002

Picture This Curriculum
Table of Contents

Title:	**Physics Park**
Author: **Organization:** **Location:**	Scott McQuerry Blue Springs School District Moreland Ridge Middle School
Grade Level:	6-12
Time Allotment:	Three (3) or more 45-minute lessons
Overview:	Student ownership of community projects is the primary focus of this activity. Students will be engaged in the construction of a playground and the examination of the physics behind the playground's equipment. Due to the nature of this activity, it can be used as an introduction or a review of a unit on physics. Students will utilize the maps and pictures found on this lesson's website as a resource in the playground's construction. If resources are available, this lesson can be easily adapted to accommodate the individual needs of any local school or community. As an extension to this activity, students will become involved in the persuasive promotion of their ideas to local school districts.
Subject Matter:	Community Outreach, Physics, Language Arts
Learning Objectives:	The students will be able to: • Construct the schematics of a playground within a community area • Analyze the physics involved with playground equipment • Generate a promotional campaign in favor of each student playground • Present ideas/promotional items to local school board officials
Standards:	**Missouri Science Standards Addressed**: http://www.dese.state.mo.us/divimprove/curriculum/webframeworks/05SC.PDF • Conduct research to answer questions and evaluate information and ideas (Process Standard 1.2) • Organize data, information, and ideas into useful forms for analysis or presentation (Process Standard 1.8) • Plan and make written, oral, and visual presentations for a variety of purposes and audiences. (Process Standard 2.1) • Reason inductively from a set of specific facts and deductively from general premises (Process Standard 3.5) • Identify tasks that require a coordinated effort and work with others to complete those tasks (Process Standard 4.6)

CUBE components:	Picture This! Module III: Who Makes the Rules? (Sets 1 and 2) Extension activities for this lesson could include "Who Makes the Rules?", "Mayors Speak Out", and "Federal Policies" from the Box City curriculum; "Civic Index" from the FOCUS Kansas City curriculum; and, "Positive/Negative Matrix" from the Picture This! CUBE curriculum.
Materials:	Access to Internet Copies of "Grid Pattern for Playground" Graph paper (if not using the "Grid Pattern for Playground")
Prep for Teachers:	Cue up the website (www.cubekc.org/architivities/lessons/physicspark.html) on the computer. Download and print copies of "Grid Pattern for Playground" for the students. This grid is found at the end of this pdf document. Work collaboratively with Language Arts/Science instructors to establish timeline for the activity.
Introductory Activity:	The instructor will cue visuals from Physics Park web page by clicking on the Intro Lesson Images Link. The instructor will read the script for the introductory activity while showing the class the intro lesson images. **Note: Script will cue instructor when to click to next image in Intro Lesson Images Table.** **The instructor will then read the following script to the classroom:** ***Before you begin cue up Image 1.*** *You can be a part of building the new American City. Youth represents the future of the city and is just one segment of the many people who use the city. They need to have a voice in how the city works.* ***Click to Image 2.*** *Some mayors realize the importance of youth in our communities and have worked to make the community a good place for kids. The city has a youth advisory council to tell them what kids want and need in the city.* ***Click to Image 3.*** *Suddenly, mayors and planners and citizens have realized that a community designed for kids will work for everyone: the physically challenged, elders, parents with toddlers and strollers, and most of all, kids who want to be independent. It is a win-win situation for everyone.*

	Click to Image 4. *Most kids say that what they want most is a place to hang out and a place that's safe.* ***Click to Image 5*** *The picture you are looking at is from Tucson, AZ. This city's plaza, surrounding City Hall, is that kind of place. Kids hang out there and skateboard there, and it's safe because so many people cross the plaza to do work at City Hall.* ***Click to Image 6.*** *In this activity, you will be able to design your own safe and enjoyable place to hang out.* ***Click to Image 7.*** *Remember – 'You are the ones who will live in it. You are the ones who can make it be what you need and what you deserve.'*
Learning Activity:	After reading the script, the instructor will inform the students that they will take part in constructing a playground for the website school. The playground will be designed by the students to accommodate all of their interests. The students may be asked to enter the computer lab to locate the following URL www.cubekc.org/architivities/lessons/physicspark.html to view the photo named Website Playground Photo (photo is also attached to the end of this lesson if instructor prefers to print out a copy for students) or the picture may be shown to the entire group at once from a single media source. The students will be asked to identify the site, noting the location of the school, roads, and any other structures that may influence the type of playground they wish to create. The instructor will place the students into groups of three or four. For older students, it may be best to allow the students to place themselves into groups. Each group will be responsible for studying the ground maps and pictures from the website school. The following directions will be provided to each group: • All playgrounds must have at least six different pieces of equipment/ structures/rides/etc. associated with them. • Safety is a concern. Therefore, do not construct items that would require adult supervision. • Make all objects within the playground fun and attractive. • The playgrounds are to be a place for you and your friends to hang

out and feel safe.

Each group will receive a "Grid Pattern for Playground" for the website school. A copy of this map has been provided with the lesson. On this map, students will identify locations for their playground items. The map has been scaled to represent the area that is available for the playground. The students must keep the scale in mind when they create their park.

The students will be provided a 45-minute class period to generate their playground. The instructor will collect the maps and identify the various objects within them. In particular, the instructor will need to identify the physics behind the playground equipment. For example, a see-saw could demonstrate the effectiveness of a lever, a swing is a good representation of a pendulum, and so on.

If this lesson is to be utilized as a review of a physics unit, the instructor may wish to return the maps to the student groups and ask each student to identify the various physical laws behind their creations. Should this lesson be an introductory activity to a physics unit, the instructor could identify the physics behind each of the playground items.

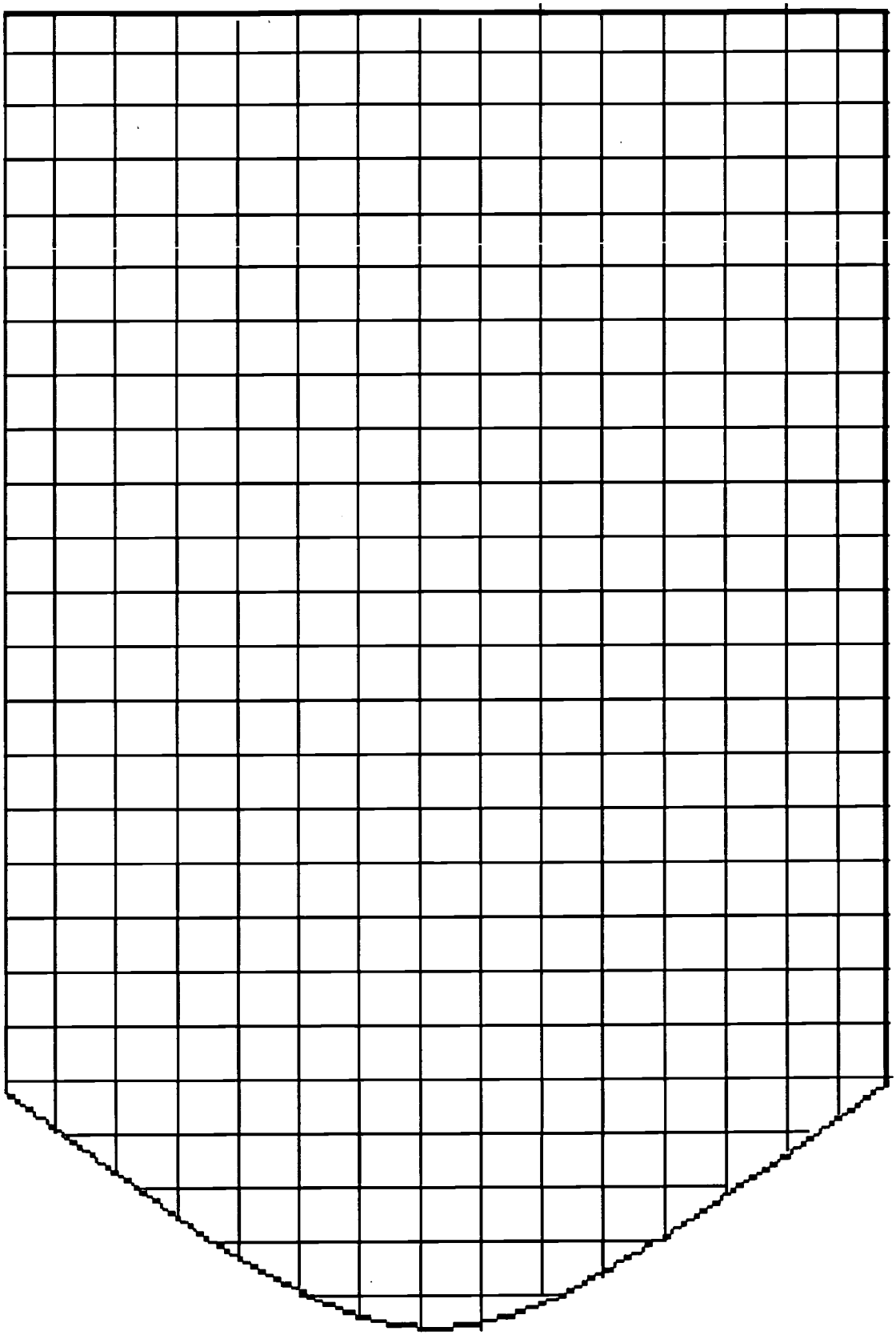
Although each of the student designs brings a myriad of possible playground objects, the following list describes a few concepts that could possibly be found:

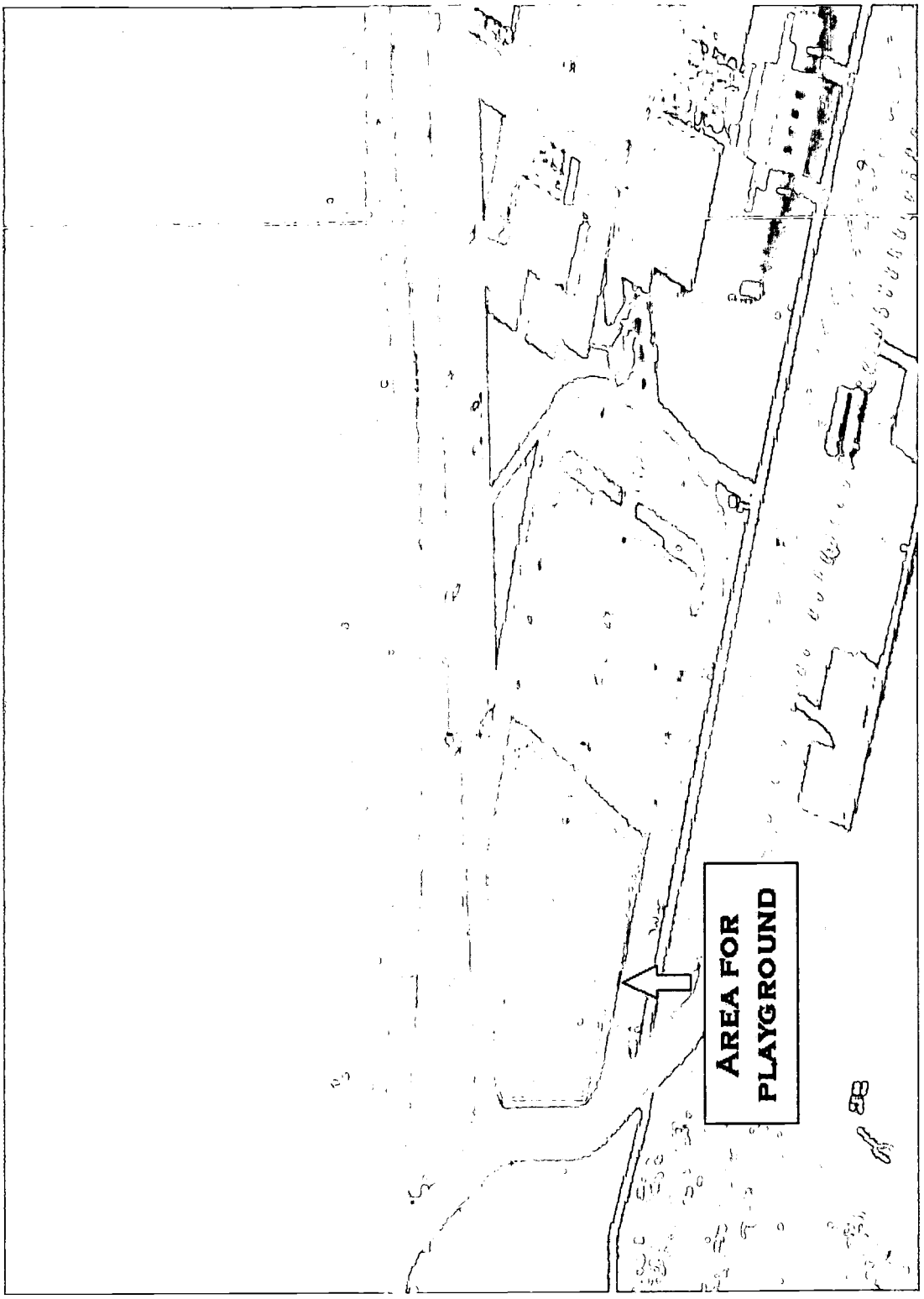
• See-saw	mechanical advantage/levers
• Swing	period of a pendulum/kinetic and potential energy
• Slide	gravity/friction/thermodynamics/angles
• Merry-go-Round	rotational kinematics/centrifugal force
• Half-pipe (skating)/ Bowl (skating)	Newton's 3 laws/gravity/momentum/ trajectory/projectiles/circular motion/friction
• Rocking horses	kinetic and potential energy
• Trampoline	gravity/ kinetic and potential energy

	• Tether-ball — gravity/acceleration • Basketball court — gravity/ kinetic and potential energy • Any structure that a student could drop an object from — Newton's 3 laws/gravity/momentum/ trajectory/projectiles/acceleration
Culminating Activity:	*"When we leave decision-making to others, the result is not always what we expected."* This statement can be shared with the group as they complete their scientific exploration of their playground. The resource they have created can serve a dual purpose: It can be a favorite hangout for students beyond their school day; however, it could also serve as a resource room for science/math educators. Numerous scientific and mathematic explorations can take place while the students enjoy their playground. Many students will construct their playground and demonstrate the physics behind each structure, but will fail to realize that their vision could become a reality. Therefore, the instructor will demonstrate the power that students possess by presenting the Picture This! Modules III (1) slide show.
Evaluation/ Teacher Reflection:	A – At least six (6) different pieces of equipment/structures/rides/etc. have been placed in the playground. All structures can be considered safe and could be enjoyed without adult supervision being required. The structures are fun and would easily fit into the architectural style of the community. *If used as a review of a physics unit, students will correctly identify the physical laws from their structures with 90-100% accuracy.* B – No more than five (5) different structures have been designed. Most structures can be considered safe for children to utilize. Most structures are visually pleasing and would be accepted by neighborhood residents of the playground. *If used as a review of a physics unit, students will correctly identify the physical laws from their structures with 80-89% accuracy.* C – No more than four (4) different structures have been designed. Playground would require adult supervision due to dangerous structures. Equipment would not be accepted by the neighborhood because of sound and/or visual pollution. *If used as a review of a physics unit, students will correctly identify the physical laws from their structures with 70-79% accuracy.*

	D – No more than three (3) different structures have been designed. Playground does not fit within the predetermined boundaries. Most items placed within the playground are dangerous and would not be accepted at all by members of the community. *If used as a review of a physics unit, students will correctly identify the physical laws from their structures with 60-69% accuracy.* F – Less than three (3) different structures within design. *If used as a review of a physics unit, students will correctly identify the physical laws from their structures with 50-59% accuracy.*
Cross Curricular Extensions:	**Math** – Playground physics is loaded with moderate-to-advanced level mathematical formulas for students. Newton's laws can be demonstrated in written, mathematical, and graphical formats. Every physics concept that is explored can be represented within the math classroom. **Language Arts** – Students can create an advertising campaign for the construction of their playgrounds. Persuasive essays as well as promotional skits could be generated to identify the utility, need, and interest from community members in the construction of this area. **Social Studies** – Students can research the favorite pastimes of children within various civilizations. Just as the playground is supposed to be an unsupervised area for the students to congregate, research can be generated into how ancient peoples entertained themselves. Sports and other recreational activities will undoubtedly be a strong focus within this activity.
Community Connections:	The instructor can collect all of the persuasive essays and promotional skits that have been generated within the Language Arts component of this activity. With the principal's approval, the students could nominate an individual to present their idea to the local school board. Naturally, all of the students' ideas cannot come to fruition. Nevertheless, the general concept of creating a playground whose design has been largely influenced by the students within the community can be presented. Should this avenue be followed, students could design or redesign an area around their school or community. This would personalize the activity to bring more student ownership and authenticity to the project.

GRID PATTERN FOR PLAYGROUND





WEB CURRICULUM:
Center for Understanding the Built Environment (CUBE)
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Image 1

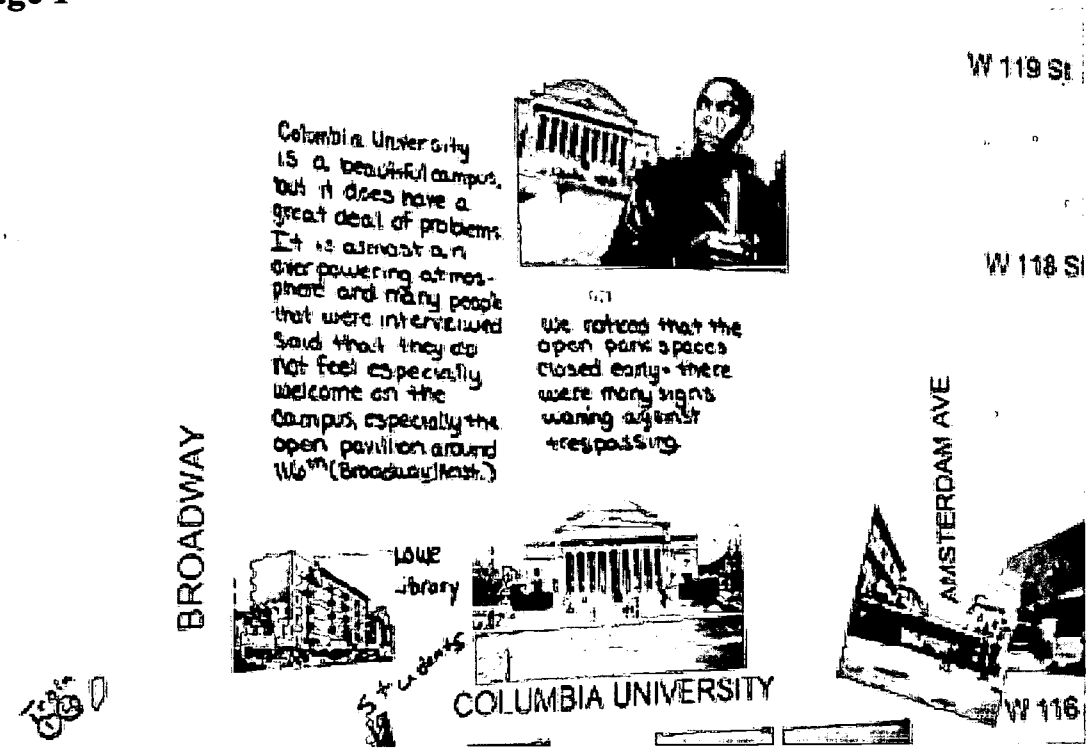


Image 2

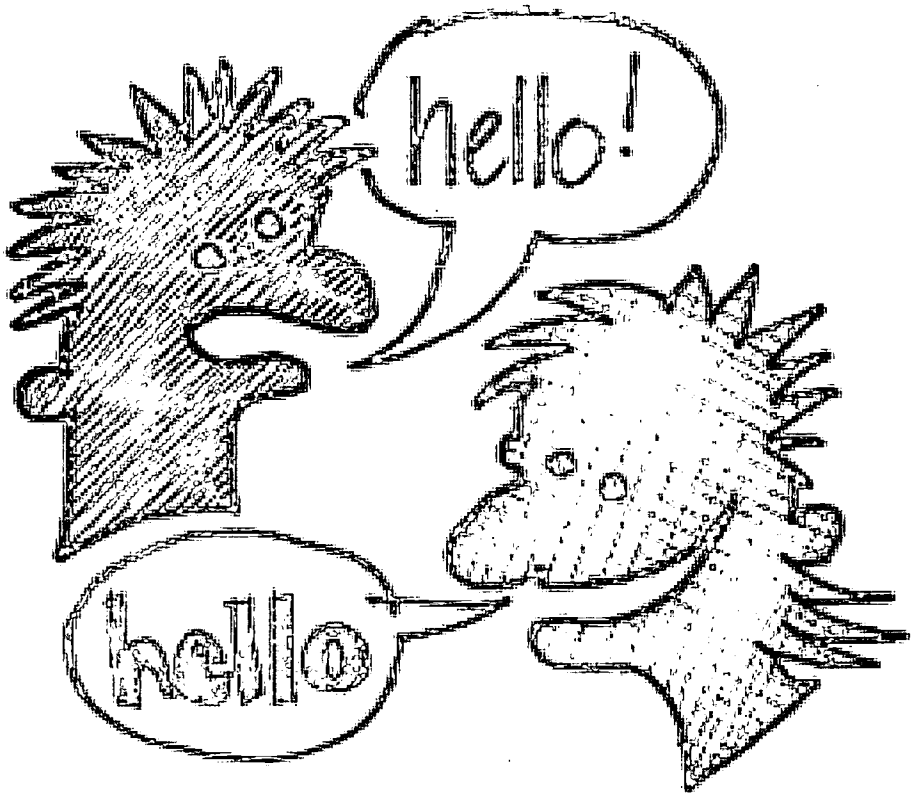


Image 3

Image 4

Image 5

Image 6

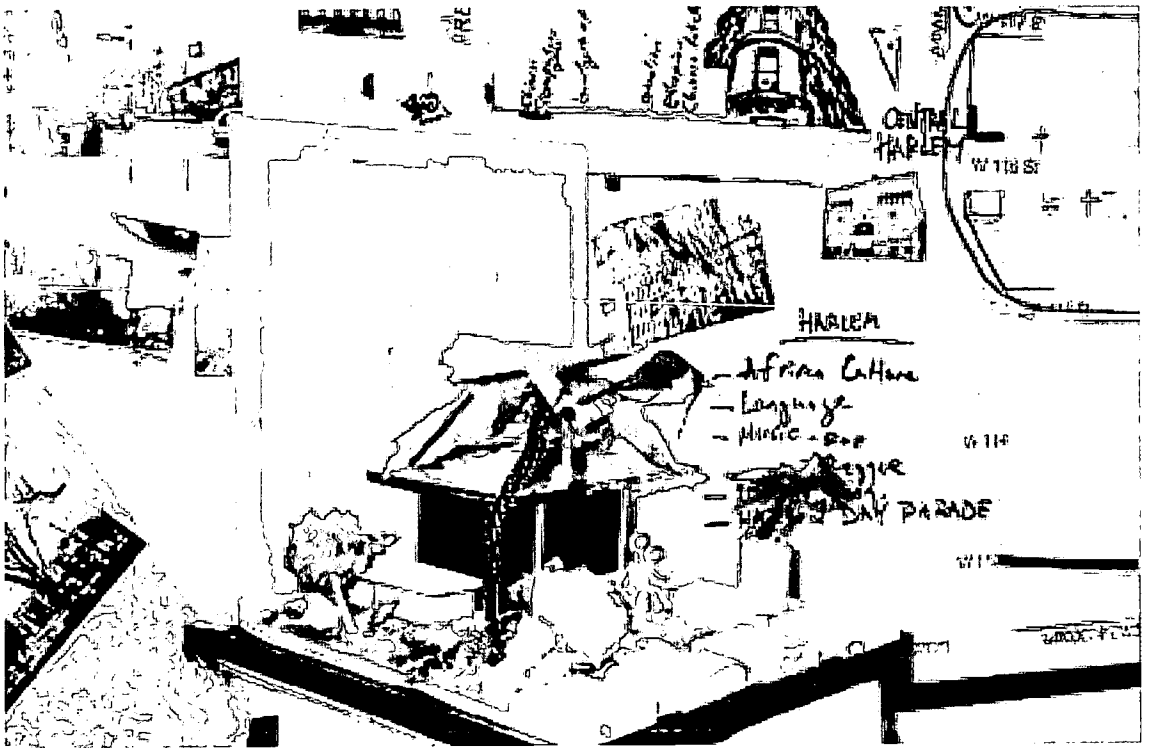
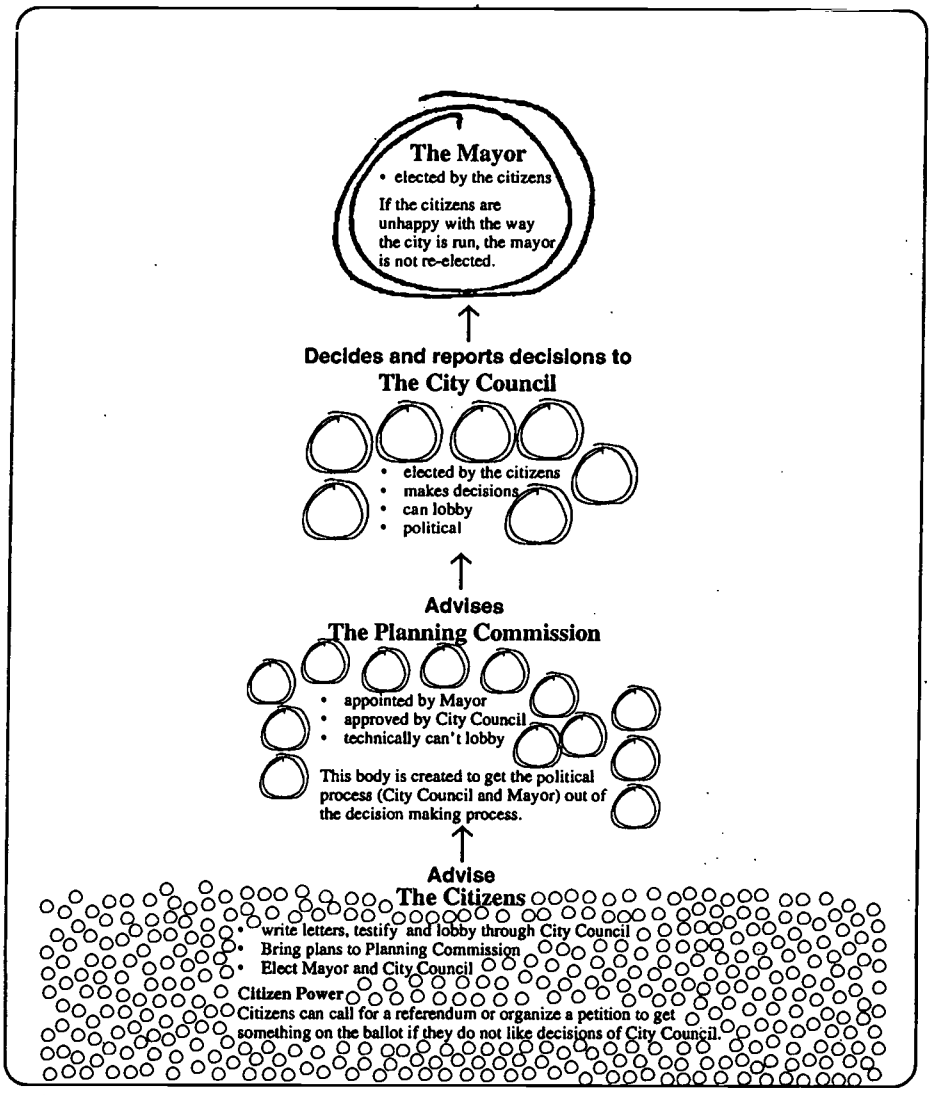


Image 7

BOX CITY

Who Makes the Rules?



Mayors Speak Out

Mayor Harvey Gantt, Charlotte, NC

We need to treat historic preservation, not as an amenity, but as an essential policy. By not doing so, we miss opportunities to not only remember our past, but we will also lose the potential benefit of using preservation as a tool to uplift the psyche of the entire community.

Design your neighborhood to meet the needs of a ten year old child.

Joseph P. Riley Jr., Hon. AIA, Mayor of Charleston, SC

A city's beauty or lack of it shapes a metropolitan area's sense of itself—indeed the reality of itself.

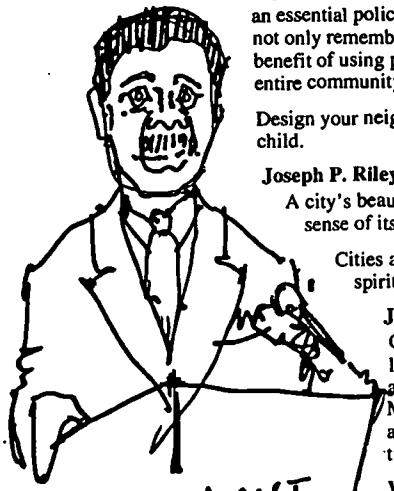
Cities are things of many dimensions. They have spiritual qualities just as their citizens do.

John Norquist, Mayor of Milwaukee, WI

Convention centers that have been built in the last 20 years are not a pretty sight; most of them are ugly. We want people to come to come to Milwaukee, not only because of the variety of attractions the city has but because the convention center itself is an attraction.

William Schaefer, Mayor of Baltimore, MD

Why can't a garage look like any other building?



Emanuel Cleaver, Mayor of Kansas City, MO

No matter how well meaning the average citizen, it is impossible to make the kinds of changes which will affect life on a large scale without political power. At the same time that citizens are making personal contributions to the built environment—recycling, building energy efficient houses, serving on preservation boards and neighborhood organizations—it is necessary to ensure that elected officials are informed and committed to an environment which contributes to the quality of life of all individuals. Charleston citizens, more aware of their heritage of historic buildings and noteworthy planning which has led to a livable community which all enjoy, have elected a series of Mayors with an understanding of what it means to the community to retain its character. Individually, other mayors are speaking out for good city planning and design.

Federal Policies

To understand what has happened to communities in the 20th century it is necessary to look at the laws which have brought it about. When we look at major policy changes in planning, it is apparent that some of the largest changes—and some that have been most detrimental to community—were engineered by our federal policy makers. These people are appointed by leaders we have elected to represent us. They are carrying out our wishes. Therefore, we the citizenry, have the communities we have asked for through the democratic process.

The landscape of America can basically be broken into two periods:
First Era Towns representing the earliest Colonial settlements and which exhibit a multi-use pattern

- the agrarian grid with 640 acre sections and 6 square mile townships which can be seen in the East and Midwest
- the Spanish land grants which are seen in California and the Southwest

Second Era Towns, which began in 1938 when the Federal Government began work on a national planning code which decreed separation of uses. These exhibit a single use pattern.

- office parks
- shopping centers
- residential PUD (planned unit development)

Since the Second Era town is the one in which most of us live, let's look at the policies and legislation which have shaped those towns.

1938 Planning for Minimum Property Standards began.

1945 The Federal Housing Administration (FHA) established Minimum Property Standards (MPS) for residential development which determined the way we would live after World War II. Without observing these guidelines, a developer would not receive Federal Mortgage insurance. This document affected postwar suburbs because it was based on the belief by its organizers that the American gridiron town could not accommodate the automobile, it affected postwar suburbs by imposing a pattern of enclaves rather than a continuous urban fabric; traffic was restricted to arterials and houses stood on curving cul de sacs.

1956 ***National System of Interstate and Defense Highways***
An increase in the population growth between 1950 and 1960 (179 million), with a number of middle class families moving from cities to new suburban developments led to an increase in traffic and pollution. The Interstate Highway Program allocated 25 billion dollars, 90% of the total estimated cost, for cities to develop new highways over the next 12 years. With this kind of subsidy, a number of

Federal Policies (2)

(1956) cities did as Boston, San Francisco and Fort Worth did—they built freeways which separated the city from its historic neighborhoods, waterfronts and downtowns. In 1968, the total mileage was expanded to 44,000 miles. In those same cities, in the 90s, those highways are being torn down and replaced.

1962 ***Communications Satellite Act***
This act opened up worldwide voice communications and data and has influenced the ways that people can work. There is less need for a centralized office environment and as a result, many businesses left downtown locations for suburban office parks.

1966 ***National Historic Preservation Act***
The destruction of our past, built and natural, and the need for preserving it began as early as 1872 when Congress proclaimed the Yellowstone region of Wyoming as a national park and established for the first time a national governmental role in protection and administration of such areas. Conservation and preservation came to be seen as necessary to the quality of life in America.

Just prior to the 1966 Preservation Act, an aluminum siding craze swept through many Midwestern communities. Historic buildings were covered over; their character (and stories) lost.

1966 ***Model Cities program***
This program evolved from the establishment of a new cabinet level department, the Department of Housing and Urban Development. It tied together a vast array of federal and local programs in trying to attack the problems of major blighted areas with massive federal aid.

1969 ***National Environmental Policy Act***
The environment became a major social issue in the 1960s when the evidences of our technologically advanced society began to show themselves in smog/oil slides, overflowing landfills of rotting garbage, toxic wastes and contaminated waterways.

1973 ***Federal Aid Highway Act***
This act stopped planned construction and instead, allowed funds for mass transit. It was a revolt against the freeways of the 60s.

1990 ***Amendments to Federal Clean Air Act***
States were encouraged to adopt land use controls designed to reduce total vehicle miles traveled and consequent air emissions.

1991 ***Intermodal Surface Transportation Efficiency Act (ISTEA)***
ISTEA allowed funds for mass transit systems and "enhancement" activities that can be hooked onto transportation systems. These could include the restoration of older neighborhoods affected by mass transportation.

Federal, state and local policies are constantly in a state of change. Add the new policies since 1991. Note how they have affected the environment in good or bad ways.

Reference "Solomon, Daniel, Fixing Suburbia" from *The Pocket Pedestrian, a new suburban design strategy* Kelbaugh Doug Princeton Architectural Press, 1989.

A review of how and why people in YOUR TOWN feel about their role in the community, will reveal a number of opportunities for improvement in the community process. The Civic Index questionnaire is an even deeper investigation of the activity called *Who Makes the Rules?*

Mindsets

1. How do things "get done" in YOUR TOWN? How do people *think* things get done? If there is a difference, why? If there is a serious problem in a neighborhood, what normally happens? If there is a city-wide problem, what happens? In other words, what is the mind-set or what are the mind-sets that shape the way people in the city usually respond to problems?

Practices

2. Are there problems in the city that can't be solved or issues that won't be addressed unless everyday citizens or the public at large responds? When the public needs to respond, what usually happens? Why? What role do rank-and-file citizens usually play in responding to problems? Are they typically on the playing field or on the sideline? How much responsibility does the citizenry take for what happen in YOUR TOWN?
3. Who gets to say what the issues in the city are? Who names them? Do most people see a connection between their deepest concerns and the way issues are presented?
4. How are public attitudes about problems usually formed? By public relations or public education campaigns? Leadership rhetoric? Media messages? Direct citizen-to-citizen interaction, either informal or formal?
5. Does the public typically express itself through first impressions, initial reactions and popular opinion *or* more reflective and shared public judgment?
6. When things need to be done, how are the decisions made? Who makes them? Are citizens more likely to be engaged in confronting the hard choices about what they can do *or*, are citizen's meetings more likely to be for describing needs?
7. When decisions are made is there a habit of putting all the options for action on the table and carefully weighing the pros and cons of each? *Or* is it the custom to hear about one particular solution and depending on which side has the floor, its advantages or disadvantages?
8. What institutions provide space for "citizens as citizens" to come together and make decisions about major problems? In other words, what kind of public talk is most common in decision-making? Debate? General discussion? Deliberative dialogue?
9. Does the audience for these gatherings normally cut across or fall along the geographic, social, economic, and ideological divides in YOUR TOWN? How connected are the various public gatherings? Are there the civic equivalents of cross-streets that connect different sections and interests? Where are these boundary-spanners?

Relating and Acting

10. When the city acts, is it more likely that the different actors will act in their own way and that the sum of their efforts will be fragmented, *or* is it more likely that acting will be mutually reinforcing and that the whole of the enterprise will be greater than the sum of the parts? If the response is different on different occasions, why?
11. How would most people characterize their relationship with the major institutions in town—government agencies, the schools, the media? Which institutions do they feel are really "theirs"? Do people see themselves as clients *or* customers of those institutions as partners?

Learning

12. How are outcomes or results of acting usually assessed? Are people likely to measure success against predetermined goals *or* are they prone to judge what they have done by what they have learned? Who owns the process of assessing results? How does it affect the way the community learns?

Every decision will have good and bad points. When you evaluate them in an orderly way, you will quickly see which solutions have the most positive aspects. Use can use the Positive /Negative Matrix with any of the decisions you make regarding activities in Picture This!

List the good and bad things about every decision.

+	Solution	-

Title:	**Comparing Edible Communities**
Author: **Organization:** **Location:**	Scott McQuerry Blue Springs School District Moreland Ridge Middle School
Grade Level:	6-8
Time Allotment:	Three (3) or more 45-minute class periods
Overview:	Students will explore the components of a community by creating analogies between aspects of a community and ingredients within a recipe. The cohesion among community areas will be demonstrated by students as they attempt to create cookies from various recipes that have missing ingredients. Students will realize that the removal of one ingredient directly influences the entire product. This action is analogous to the removal of any vital aspect of a community. As one community area disappears, others are directly influenced.
Subject Matter:	Community Awareness, Food/Consumer Science
Learning Objectives:	The students will be able to: • Create analogies between two different objects. • Generate a product from a recipe • Analyze the components of a recipe. • Apply information gained from experimental means into a higher-order assessment
Standards:	**Missouri Science Standards Addressed:** http://www.dese.state.mo.us/divimprove/curriculum/webframeworks/05SC.PDF • Organize data, information, and ideas into useful forms for analysis or presentation (Process Standard 1.8) • Plan and make written, oral, and visual presentations for a variety of purposes and audiences. (Process Standard 2.1) • Reason inductively from a set of specific facts and deductively from general premises (Process Standard 3.5) • Identify tasks that require a coordinated effort and work with others to complete those tasks (Process Standard 4.6)
CUBE components:	Picture This! Module I: What is Community?

Materials:	For a class of 30: (recipe ingredients are based on student groups of four) Access to Internet Copy of "Chocolate Drops" Two copies each of "Student Recipe #1-5" Pencil and Paper for each child 10 Measuring spoons and cups 10 sheets of wax paper 10 large bowls Candy bar Can of soda 8 boxes of vanilla wafers 7 cups walnuts 10 cups powdered sugar 2 cups cocoa 2 ½ cups orange juice 22 tbs honey
Prep for Teachers:	Cue the computer to the website. Prepare six copies each of the "Student Recipe #1-5" handout. Obtain the necessary ingredients for the "Chocolate Drops." Make a batch of "Chocolate Drops" for the students to observe. Place several samples of the ingredients in containers for the students to directly observe.
Introductory Activity:	Cookies made from the "Chocolate Drops" recipe will be passed out to each of the students. The cookies may need to be divided for all students to have a sample. The students will be asked to quickly write down how the cookies tasted. It will be important for the students to keep these notes for future reflection. While the students are enjoying their treat, the **instructor will show slides from the website link Intro Lesson Images** taken from the Picture This! Module I exercise. The title of the module is entitled "What is Community?" **The instructor will read the following script to the classroom:** ***Before you begin cue up Slide 1.*** *Every city is special. Finding out what makes it special is like a puzzle. Finding out what you can do to keep it special is part of being a responsible citizen. You will have to use your science skills of deduction and testing to solve problems of what makes some places special.* ***Cue up Slide 2.*** *It's hard to talk about community and really define what ideas you have unless you make sure that everyone is talking about the same thing. You may*

	have one picture in your head, but another picture is coming out of your mouth. ***Cue up Slide 3.*** *You have heard the saying, 'A picture is worth a thousand words.' Throughout this project, we are going to try to use words, pictures and actual activities to make the meaning clear. We'll take a look at some pretty ordinary things like street signs, homes, cars, and grocery stores and let you decide – "What is community?"*
Learning Activity:	After reading the script, the instructor will lead the class to the computer lab for the students to access the following website: www.cubekc.org/architivities/lessons/edible_comm.html. The contents of this website can be presented to the class as a group if a computer lab is not possible. The instructor will inform the students that they will be creating analogies between pictures on the website and the ingredients within a recipe. For many students, the concept of analogies may be difficult to understand. The following activity may help to define an "analogy." *Hold up a candy bar and a can of soda in front of the class. Ask the students if they can find any similarities within these two objects. Many students will say that they make them hyper, gives them energy, etc. Discuss these ideas in class and inform them that they are making analogies between these two obviously different structures.* *Have the students come up with more examples of analogies on their own. Some students will merely describe various forms of candy as sources of energy. Encourage students to think of examples beyond items that supply energy/sugar. Pick out objects in the room and ask the class to come up with various analogies.* *As you move through the room, pick objects that a similar structure or function. Students may simply choose objects that "look like" or "resemble" an object. This would be acceptable. For a greater challenge, however, ask the students to identify analogous functions between the two objects. This requires more thought. Repeat this process until it appears the class is comfortable with the concept of analogies.* Remind the students that they will be creating analogies between the pictures on the website with ingredients within a recipe. It might be beneficial to walk through each of the pictures and identify each of the community locations that these pictures represent. In addition, the

	ingredients of the recipe should also be presented to the students, to assist them in the construction of their analogies. The following chart describes the pictures and community locations for each of the pictures. These images are found when clicking on the link **Learning Activity Images**. 1. Construction areas 2. Police Station 3. Water tower 4. Electrical Station 5. School 6. Road 7. Street Sign 8. Car 9. Grocery Store 10. Park 11. City Hall 12. Homes 13. Trash Can 14. Post Office 15. Bank 16. Retail Store The following list describes a small portion of the possible analogies that exist between the recipe ingredients and the community pictures. 1. The color of orange juice is the same as the color that construction workers use while they work. 2. The protective shell around the walnut is like the police, who provide protection to the community. 3. The water tower holds drinking water like the honey container holds honey. 4. The color of powdered sugar is the same as the color of a home. 5. A box contains lots of vanilla wafers much like a school contains lots of students. 6. The brownish color of this city hall building is a lot like the color of cocoa. The instructor will collect the student-generated analogies and will place the students into groups of four. At this time, the instructor will reinforce the concept that it takes a collection of buildings, streets, signs, and other items to make a successful community.
Culminating	Each student group will receive a different copy of the "Student Recipe" and

Activity:	will be given access to the various ingredients that will be needed. Each of the recipes is different in that each is missing one of the ingredients. The instructor will ask each student group to follow their recipe exactly. When completed, the student groups will showcase their cookies on a plate along with their recipe. Students will be allowed to sample each of the different cookies and reflect on how they taste in relation to the cookie they sampled in the introductory Activity. At this time it may be helpful to pull out the student notes from the Introductory Activity for the students to reflect upon the taste of the original chocolate drop. After all of the cookies have been tasted, the instructor will ask the students if any of these new products tasted similar to the first one they tasted. None of these new creations should taste similar to the original. The analogy of these altered recipes to the community pictures should be stated at this time. The students will be told, "All of your recipes were similar to the one that created the original cookie. However, each of your recipes was missing a vital ingredient. How did the missing ingredient affect the overall result?" The students should state that their products tasted much different than the original cookie that the instructor passed out. Whenever an ingredient is missing from the recipe, the end product will be changed, possibly for the worse. This fact is analogous to a community. If one aspect of a community is removed, then the area or neighborhood may encounter problems. For example, if we removed schools from a community, it would have terrible effects. (Even though the students may disagree with you!!!) The children would still have to go to school; however, they would have to be bused to a different area, which would require every student to get up much earlier than they already do! Plus, there would be the extra cost in transporting students much farther away. For a conclusion, the instructor will once again identify the analogy between the faulty recipes and the community connections. For assessment purposes, the instructor may choose any of the following Cross Curricular Extensions to determine the student mastery of these concepts.
Evaluation/ Teacher Reflection:	A – 90-100% of the analogies correctly identify the correlation between both objects B - 80-89% of the analogies correctly identify the correlation between both objects

	C – 70-79% of the analogies correctly identify the correlation between both objects D – 60 -69% of the analogies correctly identify the correlation between both objects F – 50 -59% of the analogies correctly identify the correlation between both objects
Cross Curricular Extensions:	**Math** – Working from the example provided in the Culminating Activity, instruct the students to imagine their community without a school. Therefore, the students would have to go to a different school in a neighboring district. To make the scenario easier to calculate, inform the students that each of them would have to walk to their current school building in the morning. From this location, school buses would arrive and transport them to their new school every morning. In this instance, they will need to calculate the extra cost in transporting them to a different school as compared to the distance between their homes and the school. Using the Internet, students can locate the nearest school outside of their district. The actual school may need to be provided by the instructor. Most search engines contain a "Yellow Pages" or "Location Finder" program that the students can utilize. Instruct the students to use these tools to determine the mileage a bus would have to make each day from their current school to their new school. The students can compare this distance with the distance between their home and current school. There should be a large difference. The instructor could then have the students calculate how much gasoline would be needed to transport all of the students to the new school and back. The school district's transportation department could provide a wealth of information. **Language Arts** – Have the students choose one or more aspects of a community to remove. Instruct the students to write an explanatory essay on how the removal of these community areas would affect their way of life. For example, what would a normal school day be like if each student would have to get out of bed at least one-two hours earlier to be transported to another school? How would they be affected? The students may describe the occurrences of a typical day under these circumstances. **Social Studies** –Again, working with the scenario of removing schools from the students' community and the transportation issues that would follow, the instructor could focus on the role of public transportation and students. With the educator's assistance, records can be obtained from the transportation department that will document the history of public transportation within the

	student's own district. Additionally, students could identify older members of the community to interview. Students could conduct a comparative study as to the conditions of public transportation from two different eras.
Community Connections:	Have the students take pictures of various items throughout their own communities. Discuss each area's role/importance to community members. Student groups could then generate a concept map of the pictures on poster board. Each connection between the pictures should contain some form of textual information describing the relationship between the two community areas. The instructor can then contact an area library and ask if the concept maps could be displayed for the public to observe. To tie the exhibit into an educational focus, the students could generate a scavenger hunt worksheet to go along with each poster. Patrons at the library could then utilize the exhibit with their children.

Chocolate Drops (TEACHER RECIPE)

66 vanilla wafers (approximately one box)
1 cup walnuts
1 cup powdered sugar
¼ cup cocoa
1/3 cup orange juice
3 tbsp honey
½ cup powdered sugar (for topping)

Put vanilla wafers in a bag, crush, then place in a large bowl. Crush walnuts and add to bowl. Stir in 1 cup sugar and cocoa. Add orange juice and honey. Shape into balls and coat with additional powdered sugar.

Student Recipe #1

66 vanilla wafers (approximately one box)
1 cup walnuts
¼ cup cocoa
1/3 cup orange juice
3 tbsp honey

Put vanilla wafers in a bag, crush, then place in a large bowl. Crush walnuts and add to bowl. Stir in cocoa. Add orange juice and honey. Shape into balls.

Student Recipe #2

66 vanilla wafers (approximately one box)
1 cup walnuts
1 cup powdered sugar
¼ cup cocoa
3 tbsp honey
½ cup powdered sugar (for topping)

Put vanilla wafers in a bag, crush, then place in a large bowl. Crush walnuts and add to bowl. Stir in 1 cup sugar and cocoa. Add honey. Shape into balls and coat with additional powdered sugar.

Student Recipe #3

66 vanilla wafers (approximately one box)
1 cup walnuts
1 cup powdered sugar
1/3 cup orange juice
3 tbsp honey
½ cup powdered sugar (for topping)

Put vanilla wafers in a bag, crush, then place in a large bowl. Crush walnuts and add to bowl. Stir in 1 cup sugar. Add orange juice and honey. Shape into balls and coat with additional powdered sugar.

Student Recipe #4

66 vanilla wafers (approximately one box)
1 cup powdered sugar
¼ cup cocoa
1/3 cup orange juice
3 tbsp honey
½ cup powdered sugar (for topping)

Put vanilla wafers in a bag, crush, then place in a large bowl. Stir in 1 cup sugar and cocoa. Add orange juice and honey. Shape into balls and coat with additional powdered sugar.

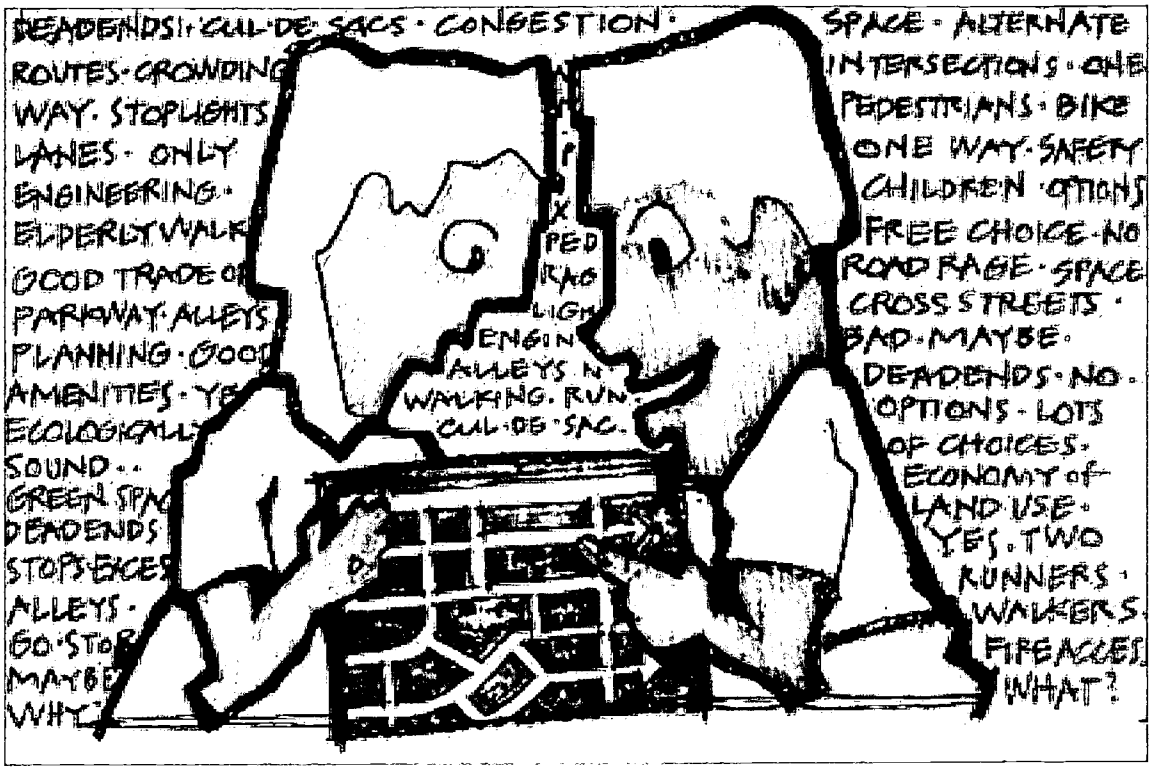
Student Recipe #5

1 cup walnuts
1 cup powdered sugar
¼ cup cocoa
1/3 cup orange juice
3 tbsp honey
½ cup powdered sugar (for topping)

Crush walnuts and place in a large bowl. Stir in 1 cup sugar and cocoa. Add orange juice and honey. Shape into balls and coat with additional powdered sugar.

Slide 1

Slide 2


DEADENDS! CUL-DE-SACS · CONGESTION ·
ROUTES · CROWDING
WAY · STOPLIGHTS
LANES · ONLY
ENGINEERING ·
ELDERLY WALK
GOOD TRADE O
PARKWAY · ALLEYS
PLANNING · GOOD
AMENITIES · YE
ECOLOGICALL
SOUND · ·
GREEN SPA
DEADENDS
STOPSIGES
ALLEYS ·
GO STOP
MAYBE
WHY
PED
RAG
LIGH
ENGIN
ALLEYS N
WALKING. RUN
CUL-DE-SAC.
SPACE · ALTERNATE
INTERSECTIONS · ONE
PEDESTRIANS · BIKE
ONE WAY · SAFETY
CHILDREN · OTIONS
FREE CHOICE · NO
ROAD RAGE · SPACE
CROSS STREETS ·
BAD · MAYBE ·
DEADENDS · NO ·
OPTIONS · LOTS
OF CHOICES ·
ECONOMY of
LAND USE ·
YES. TWO
RUNNERS ·
WALKERS ·
FIREACCES
WHAT?

Slide 3

Image 1 – Construction Site

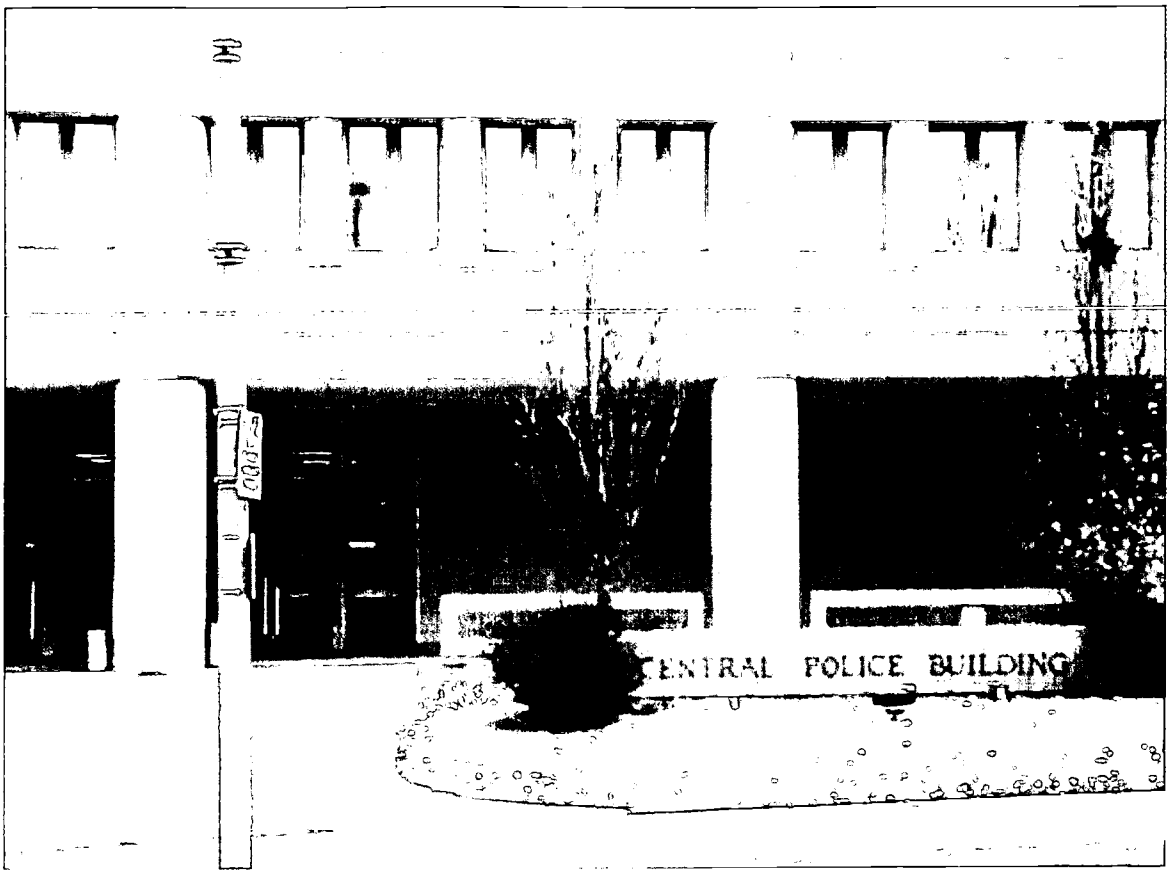


Image 2 – Police Station

Image 3 – Water Tower

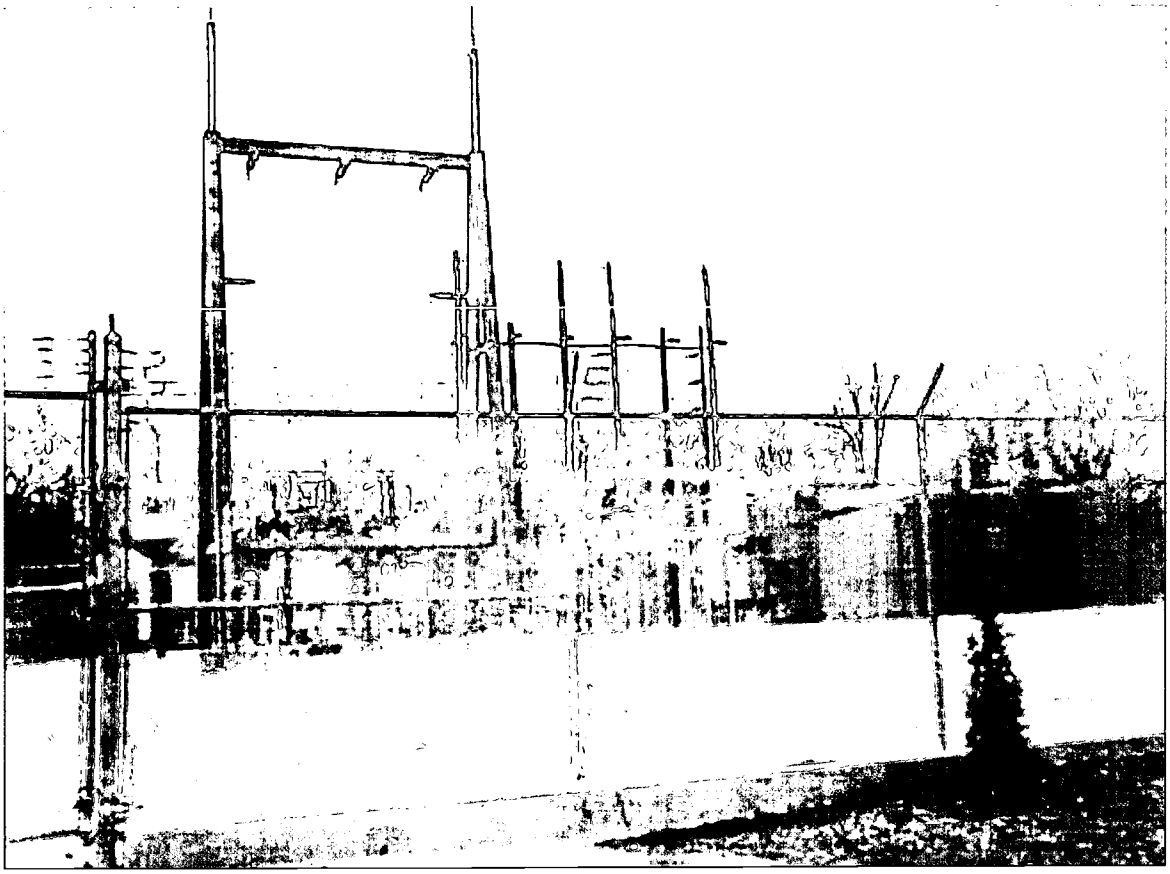


Image 4 – Electrical Station

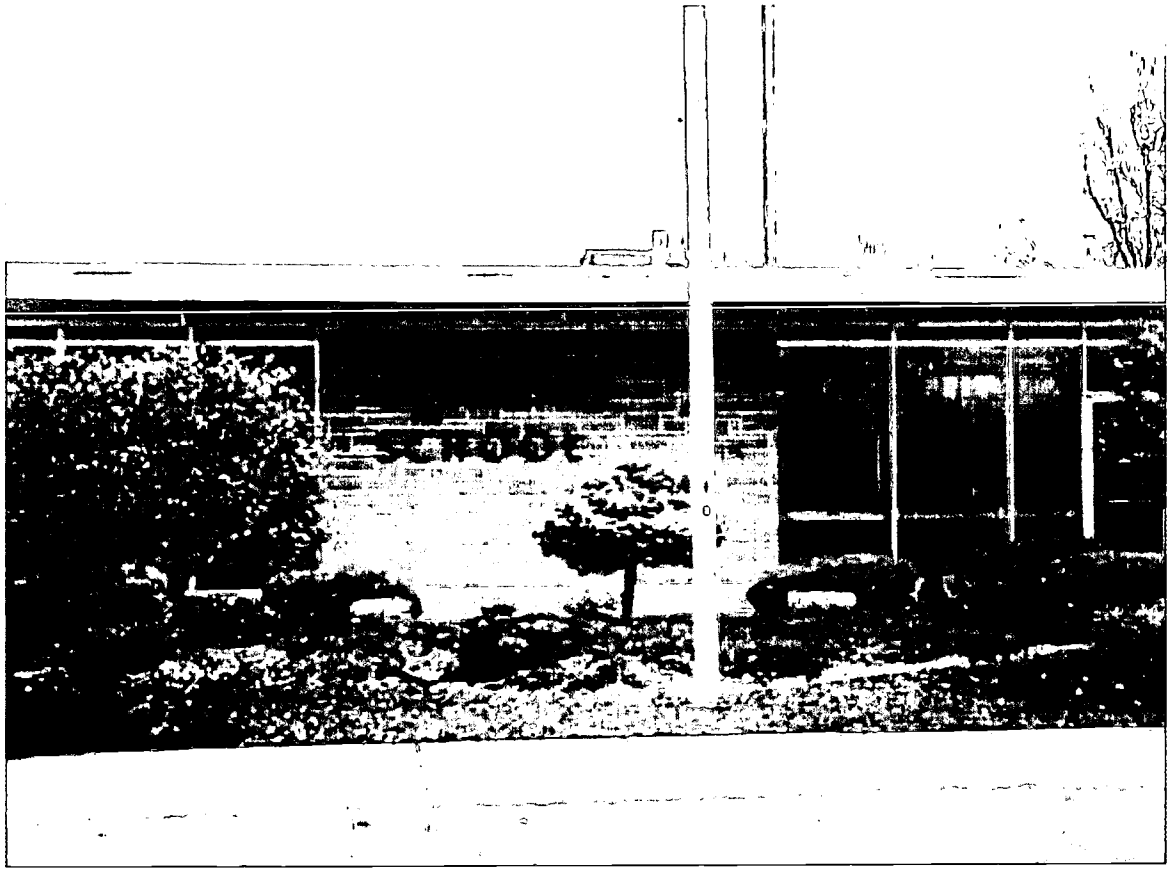


Image 5 – School

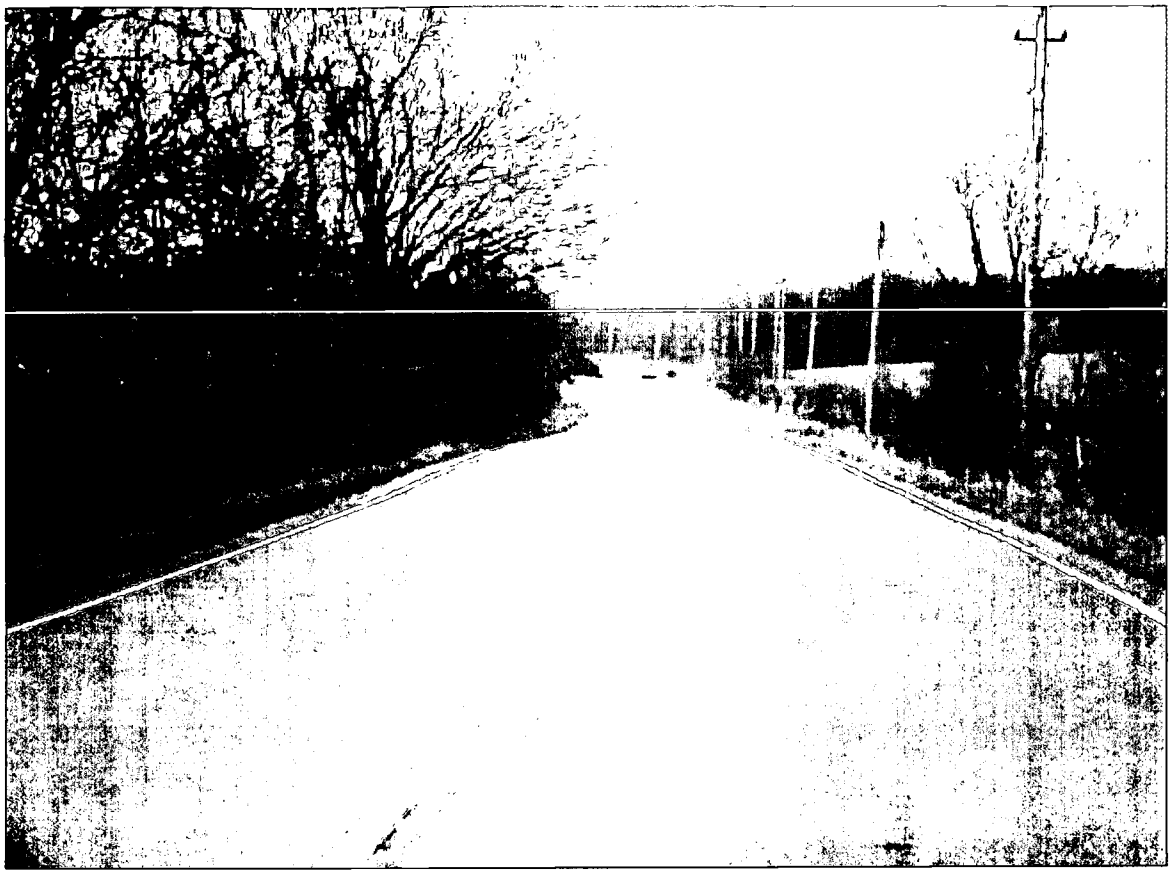


Image 6 – Road

Image 7 – Street Sign

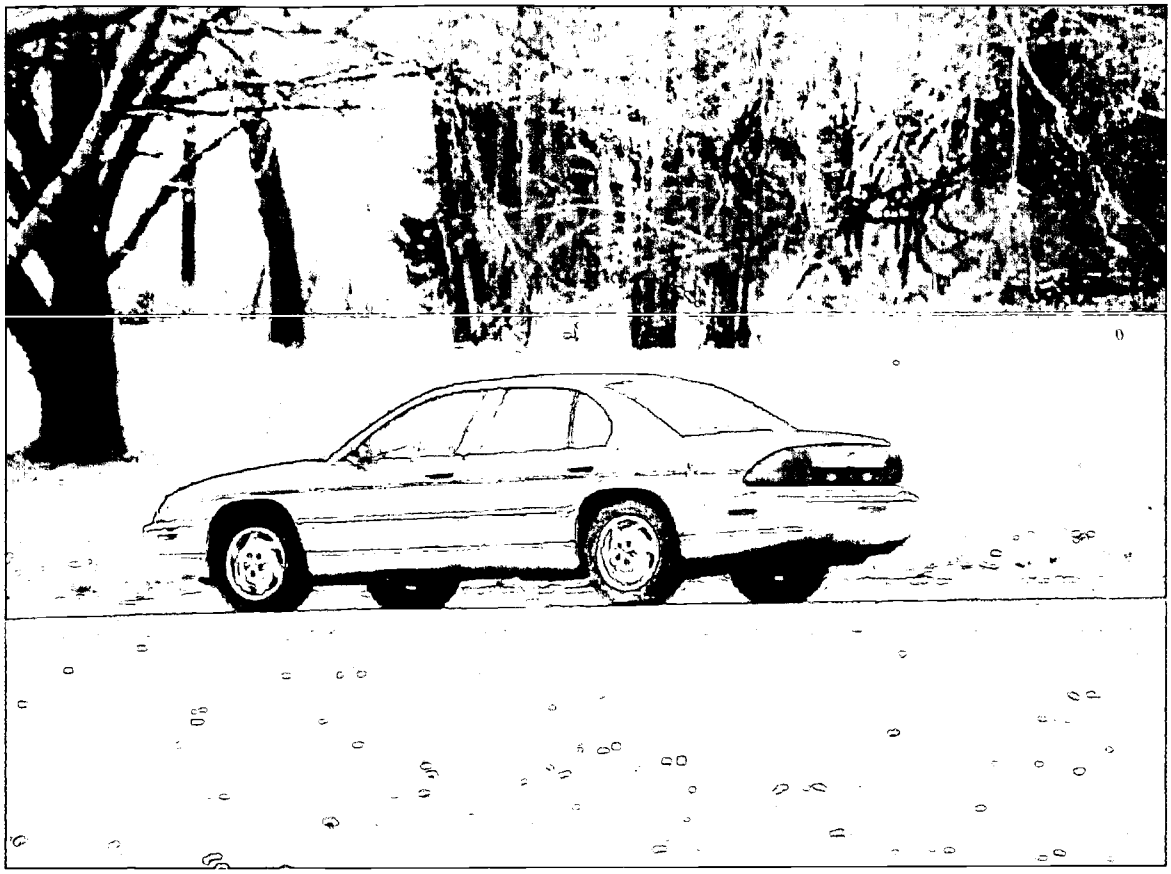


Image 8 – Car

Image 9 – Grocery Store

Image 10 – Park

Image 11- City Hall

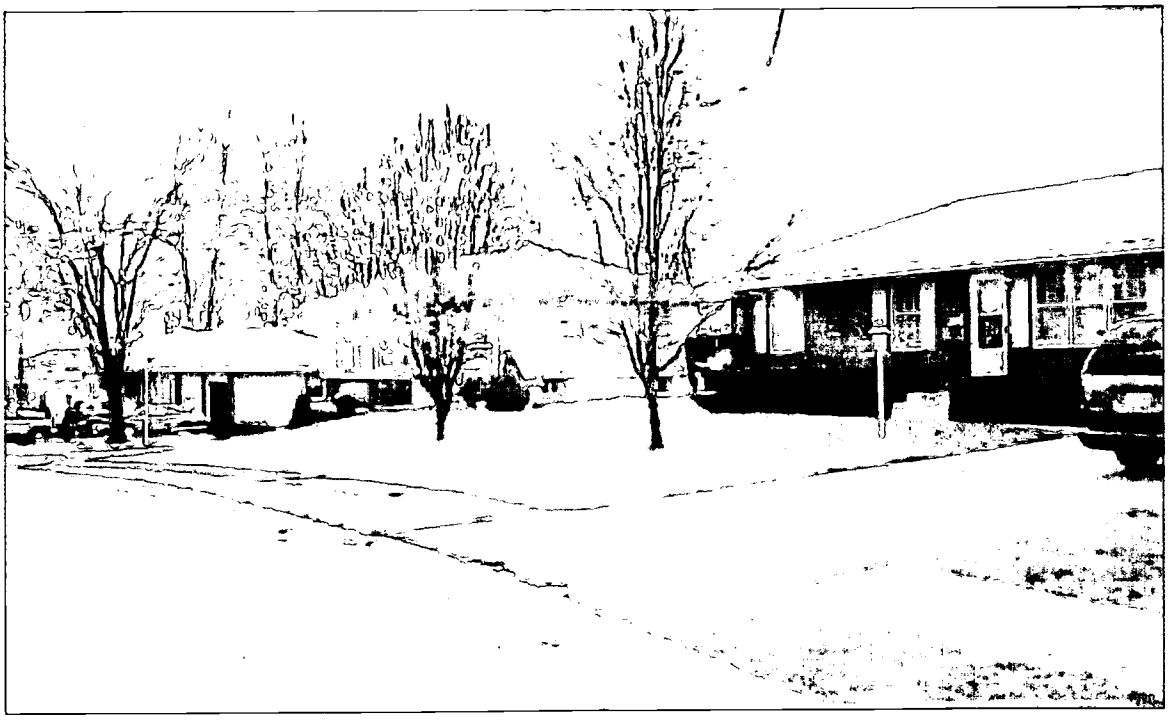


Image 12 - Homes

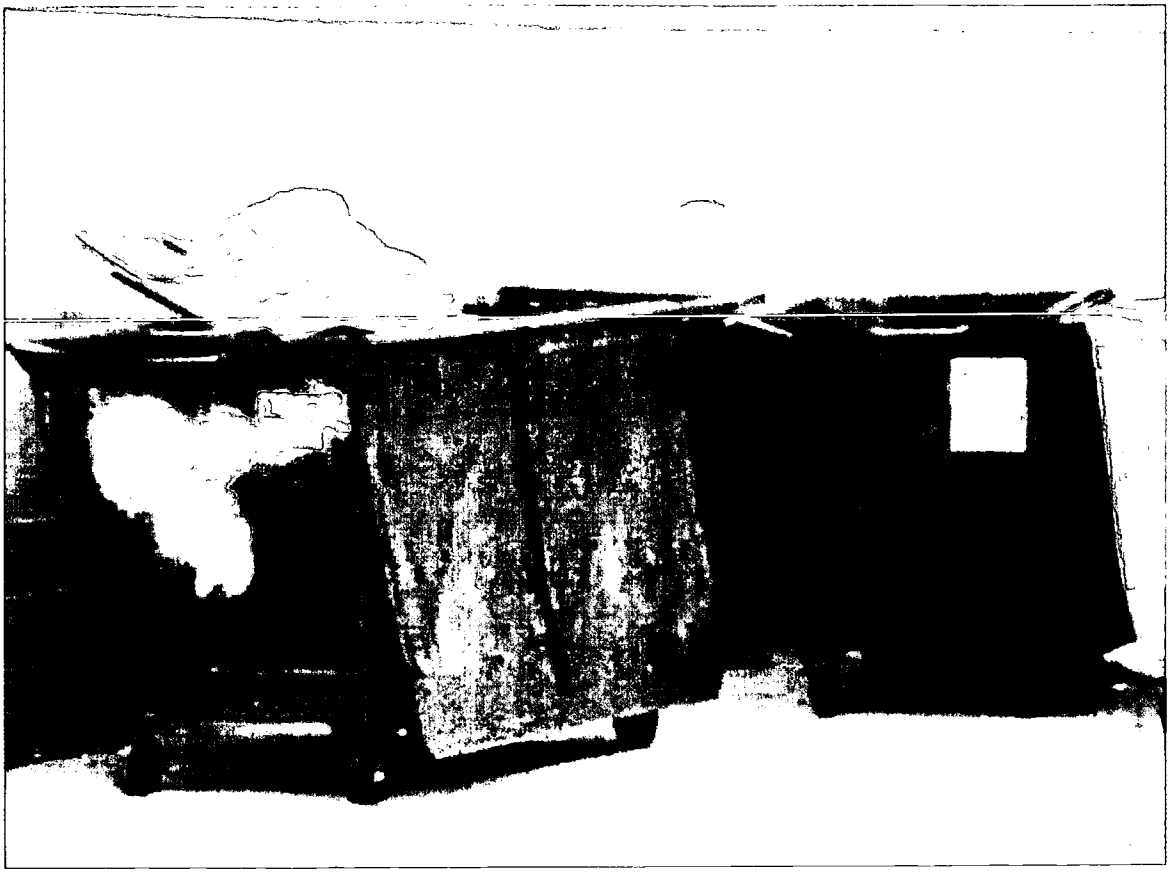


Image 13- Trash Cans

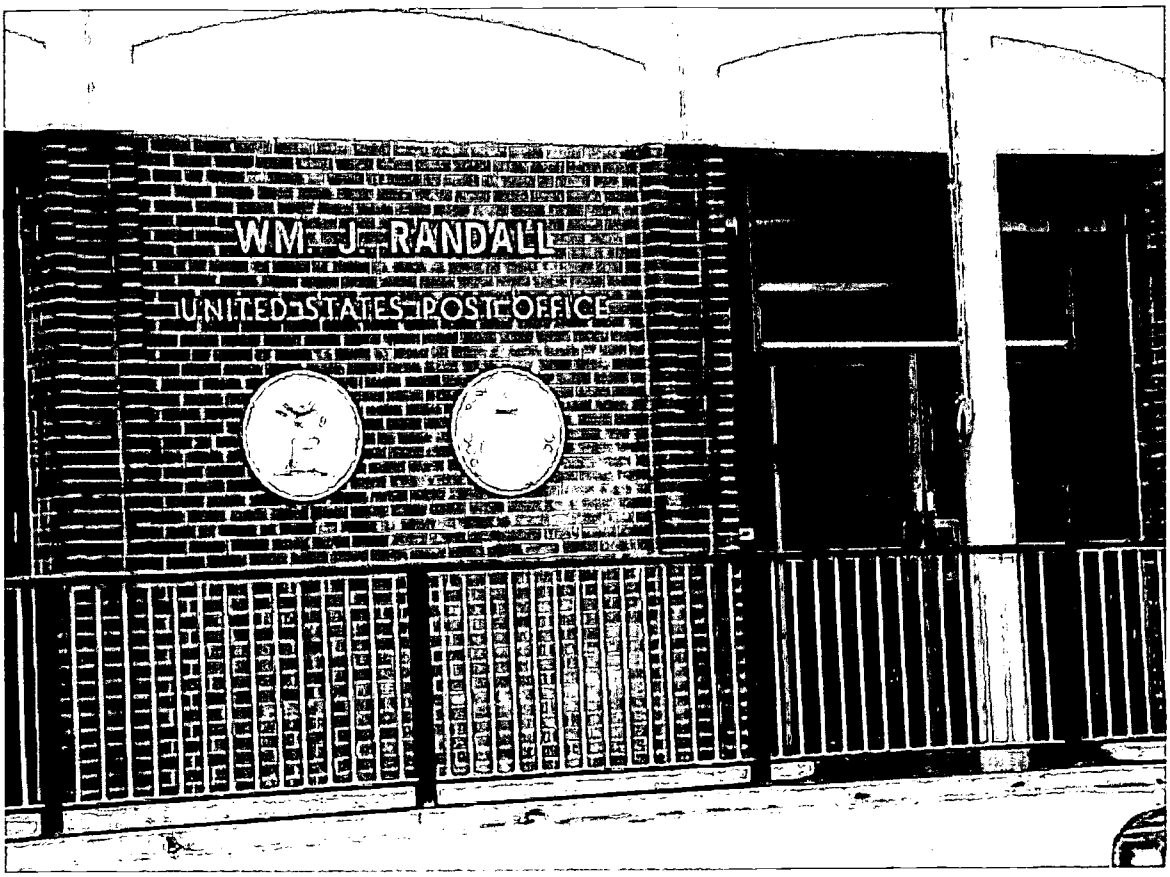


Image 14 – Post Office

Image 15 – Bank

Image 16 – Retail Stores

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