



LAND USES — THERE ARE SO MANY!

Subject: Social Studies

Skills: Classification, Description, Discussion, Organization, and Small Group

Duration: 1 class period

Setting: Classroom

Materials:

- small sticky note pads for each group
- writing utensils or markers
- copy of **Land Use Sentence Strips** worksheet for each group
- tape
- poster boards or butcher paper
- OPTIONAL - colored markers or crayons and scissors

Michigan Curriculum Framework Content Standards and Benchmarks:

- **Social Studies II.2.LE 3:** Strand II. Geographic Perspective, Standard 2. Human/Environment Interaction, Benchmark LE 3. Describe the major physical patterns, ecosystems, resources, and land uses of the state, region, and country and explain the processes that created them.
- **Social Studies V.1.LE 1:** Strand V. Inquiry, Standard 1. Information Processing, Benchmark LE 1. Locate information about local, state and national communities using a variety of traditional sources, electronic technologies, and direct observations.
- **Social Studies V.1.LE 2:** Strand V. Inquiry, Standard I. Information Processing, Benchmark LE 1. Organize social science information to make maps, graphs and tables.
- **Social Studies II.2.MS 2:** Geographic Perspective, Standard 2. Describe, compare, and explain the locations and characteristics of ecosystems. Benchmark MS 2. Locate major ecosystems, describe their characteristics, and explain the process that created them.
- **Social Studies II.2.MS 4:** Geographic Perspective, Standard 2. Describe, compare and explain the locations and characteristics of ecosystems. Benchmark MS 2. Explain how humans modify the environment and describe some of the possible consequences of those modifications.
- **Social Studies V.1.MS 2:** Inquiry, Standard 1. Acquire information from books, maps, newspapers, data sets and other sources. Benchmark MS 2. Use traditional and electronic means to organize social science information and to make maps, graphs, and tables.

Kent County Collaborative Core Curriculum (KC⁴)

- **Social Studies:** 3:3, 3:5
4:6, 4:7, 4:8, 4:9, 4:10
5:5, 5:9
6:1, 6:3, 6:4, 6:5, 6:6, 6:10
7:1, 7:3, 7:4, 7:5, 7:8, 7:9
8:1, 8:2, 8:3, 8:9

OVERVIEW

Students put together zoning pieces on a puzzle board to design a smooth running community. They then list land uses on sticky notes and categorize them into each of the zones, competing in a contest to see who can put the most types of land uses on their community puzzle board.

OBJECTIVES

After participating in this activity, students will be able to:

- Describe 6 different land use categories (zones) and sort them into 10 different land uses.
- Use city planner and land use category vocabulary words and understand difficult vocabulary words.

BACKGROUND

Land can be used for many things, such as housing, stores, parks, manufacturing, etc. Building a city is like putting together the pieces of a jigsaw puzzle. Certain land uses, like puzzle pieces, will not fit together well. This is called **incompatibility**. Only when each piece is in the right place will you have an orderly, attractive, and economically strong community.

Putting together the land use pieces is an important part of what a city planner does. But before the city planner can do that, he or she must talk with people who live in the community to see what kinds of land uses residents would like to have and where different land uses should occur. That is why it is important for people to be involved in their local government.

City planners must also find the right balance between various land uses. What would happen if there weren't enough homes for the people who work in your community? Where would they live? How would they get to work? Is there enough open space, such as parks, where people can play sports and have picnics?

When it comes to maps, city planners think in terms of land use categories and create color coded Land Use Maps. Categories are called zones, and the general zones include names like Public and Semi-Public, Industrial, Commercial, Residential, Parks and Recreation, and Agricultural. Services such as transportation have no color, but they link one usage area to another. These services may be housed in one of the areas, such as a bus station in a

downtown commercial area, but the service itself cuts across the entire range of zoning districts.

Some helpful definitions include:

Land Use: The way that land is used by humans

Zone(s): Areas which allow only certain land uses

Commercial Zone: Businesses that sell goods and services to local citizens (retail) or other businesses (wholesale)

Industrial Zone: Highly developed factories, warehouses, or plants that produce mass quantities of a product

Residential Zone: Places for people to live (homes, apartments)

Public/Semi-Public (Civic) Zone: An area that serves or is used by all people

Parks/Recreation Zone: A piece of land reserved for public use and recreation

Agricultural Zone: Land used for livestock, growing crops, and required farm buildings (barn and farmsteads)

versus the use of private land for the good of the public. An example of this occurs when the government requires a private landowner to sell property so that a highway or a public park can be built on that land.

PROCEDURE

1. To prepare materials for the lesson, complete these tasks for each group:

- Make the poster board or butcher paper to look like a puzzle with six pieces to correspond to the six zones (Figure 1).
- Make a photocopy of the provided **Land Use Sentence Strips** worksheet. Cut the strips apart, and color them the appropriate color for the zone, or allow students to do this task. (Laminate to reuse them easily.)

2. Begin the lesson by asking students to define the following land use and zoning vocabulary. Coach the students toward these definitions:

Land Use: The way that land is used by humans

Zone(s): Areas which allow only certain land uses

Commercial Zone: Businesses that sell goods and services to local citizens (retail) or other businesses (wholesale)

Industrial Zone: Highly developed factories, warehouses, or plants that produce mass quantities of a product

Residential Zone: Places for people to live (homes, apartments)

Public/Semi-Public (Civic) Zone: An area that serves or is used by all people

Parks/Recreation Zone: A piece of land reserved for public use and recreation

Agricultural Zone: Land used for livestock, growing crops, and required farm buildings (barns and farmsteads)

When the most appropriate mix or balance of land use is determined, city or community planners establish a map and a set of rules generally referred to as zoning. These rules and maps tell land owners, neighbors, and local officials what land uses can be built or conducted on which land. **Zones** or **zoning districts** vary significantly depending on the use they regulate. Some zones depict areas where very few types of uses are permitted (such as a residential zone that only allows one house for a single family). Other zones, such as commercial zones, may allow a great variety of land uses as long as they meet certain guidelines or criteria, such as providing products for local residents or providing a certain number of parking places.

The important concepts to keep in mind when teaching this lesson are: major land uses are separated into different categories called zones; only certain land uses are allowed in those zones; and zoning laws keep communities, cities, and open land running smoothly (usually).

Zoning is not a perfect land use solution and can be problematic itself. It can cause unnecessary segregation of land uses, which is a characteristic of sprawl. It can exclude uses or people from certain places. It can also be very challenging legally, such as in cases of private property rights

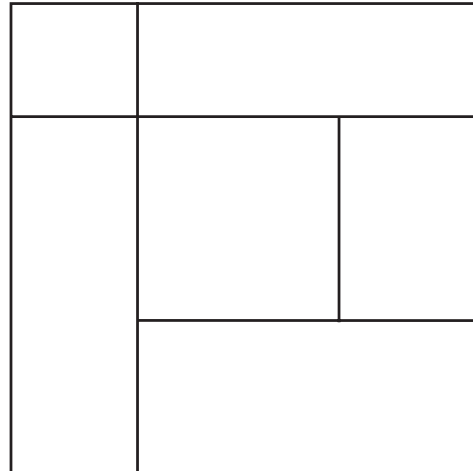


Figure 1. - Puzzle Board

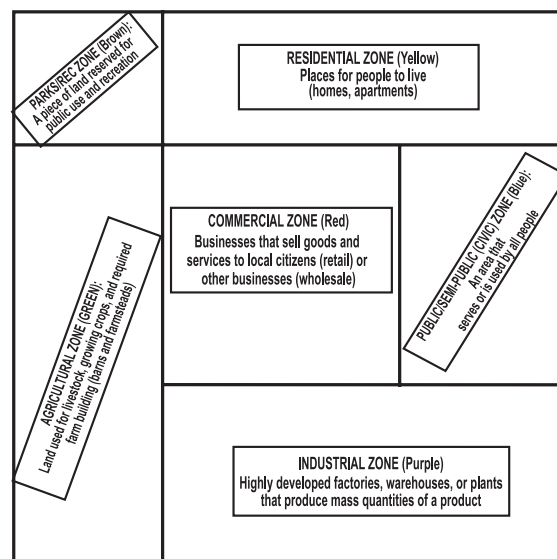


Figure 2. - Community Zone Puzzle

3. Show the students the poster puzzle boards and explain to them that building a city is like putting together the pieces of a jigsaw puzzle. Certain land uses, like puzzle pieces, will not fit together well. This is called **incompatibility**. Only when each piece is in the right place, will you have an orderly, attractive,

and economically strong community.

- Break students into groups of three to six. Give them the prepared materials and have them tape one sentence strip into one of their puzzle pieces. Allow them time to determine the best fit for each of their sentence strips into the city zone puzzle pieces (Figure 2).
- Now, conduct a contest to see which group can list the most land uses. Have the students write a land use example on a sticky note and then place it in the appropriate zone on the puzzle board (Figure 3). Groups compete to post the most land uses in the zones on the puzzle board. The group with the most sticky notes wins.
- Discuss with the students the results of the contest. Compare sticky notes and the validity of the land uses on them. Did the students realize there were so many different land uses? What types of land uses did they forget? (A comprehensive list of land uses can be found on the **Land Use Data Collection** sheet in the lesson Walking Neighborhood Surveys.) Were there land uses that can be found in more than one zone? (Houses can be found in residential and agricultural zones).

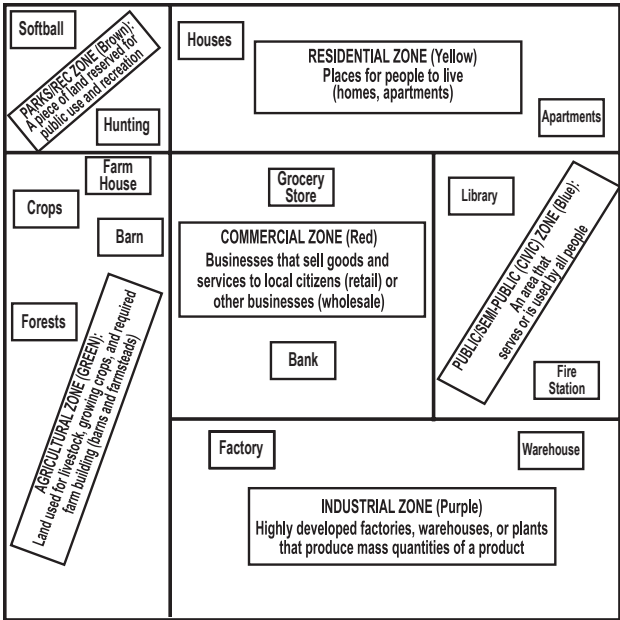


Figure 3. - Land Uses in Zone Puzzle

TEACHER MEMOS

ASSESSMENT OPTIONS

- While the students are in teams, look for participation from each person and evaluate cooperation.
- Have each student describe 6 different land use categories/zones and place 10 different land uses in them, or provide a list of land uses and have the student place them in the categories.
- Ask the student to list 3 land uses they did not realize existed or forgot.

Adaptations/Extensions

- Bring in an actual Land Use Map and display it for the class. Or, display the color land use answer key from the lesson, City Planning is Colorful.
- To inventory neighborhood land uses (if not done already), complete the worksheet **Survey: Land Use** in the lesson, Walking Neighborhood Surveys. Have students develop graphs and charts to organize the data.

Computer Extensions

City of Rancho Cucamonga Planning Division. Kids Neighborhood Workshop. Sept. 2000. 7 Mar. 2002. < www. Ci.rancho-cucamonga.ca.us/planning/kidsplan.htm> A complete online unit for the study of a community.

SOURCE

Lesson developed by Anne Williamson, curriculum consultant for *United Growth for Kent County*, a grant project of Michigan State University Extension.

ADDITIONAL RESOURCES

Contacts:

American Planning Association (APA)
Center for Understanding the Built Environment (CUBE)
Local City Planning Division/Local Planning Commission
Michigan Land Use Institute
Michigan Society of Planning (MSP)
United Growth for Kent County

References and Teacher Resources:

Graves, Ginny. Walk Around the Block. Prairie Village, Kansas: Center for Understanding the Built Environment, 1997.

Additional Lessons:

Walk Around the Block: "Understanding Land Use" page 26 and "Land Usage" page 22.

CONCEPTUAL FRAMEWORK REFERENCE

1B6, 11A2, 1V A

LAND USE SENTENCE STRIPS

Directions:

Cut the Sentence Strips apart on the dotted lines. Color the strips according to the land use (zoning) color. Decide on a good organization for the land uses, and tape the strips to the community puzzle.

Vocabulary Words:

Land Use: The way that land is used by humans

Zone(s): Areas which allow only certain land uses

Commercial Zone (red):

Businesses that sell goods and services to local citizens (retail) or other businesses (wholesale)

Industrial Zone (purple):

Highly developed factories warehouses, or plants that produce mass quantities of a product

Residential Zone (yellow):

Places for people to live
(homes, apartments)

Public/Semi-Public (Civic) Zone (blue):

An area that serves or is used by all people

Parks/Recreation Zone (brown):

A piece of land reserved for public use and recreation

Agricultural Zone (green):

Land used for livestock, growing crops, and required farm buildings (barns and farmsteads)