To create more livable neighborhoods, communities should be designed in such a way that they meet the needs of all residents and insure a high quality of life. Community planners must take into account the needs of a diverse population: the young and old, wealthy and poor, healthy and disabled. Civic facilities are often built in locations that provide convenient access for the entire community. Each community service has different requirements for its location, but the main focus of planning is to develop and preserve livable communities.

An example of one service in a community is the fire department. The National Board of Fire Underwriters writes the following regarding fire stations and their general characteristics for location and distribution:

Locations of fire stations should be selected with care so as to result in the best fire protection possible, considering both life hazard and value of buildings and contents. Many points should be considered when choosing the location so that the company to be housed in the new station will provide good coverage of the area to be protected and quick response to

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**OVERVIEW**

Why is my elementary school here? Where is the fire station? The locations of such services are often planned to provide convenient access for the entire community. By using local examples, students explore reasons why civic facilities are located where they are in their community.

**OBJECTIVES**

After participating in this activity, students will be able to:
- Collect data related to the location of community services from primary (direct observation) and secondary (maps) sources.
- Compare similarities and differences in the locations of services.
- Make a summary about the locations and characteristics of community services.

**BACKGROUND**

To create more livable neighborhoods, communities should be designed in such a way that they meet the needs of all residents and insure a high quality of life. Community planners must take into account the needs of a diverse population: the young and old, wealthy and poor, healthy and disabled. Civic facilities are often built in locations that provide convenient access for the entire community. Each community service has different requirements for its location, but the main focus of planning is to develop and preserve livable communities.

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Locations of fire stations should be selected with care so as to result in the best fire protection possible, considering both life hazard and value of buildings and contents. Many points should be considered when choosing the location so that the company to be housed in the new station will provide good coverage of the area to be protected and quick response to
alarms of fire or other emergency calls. The type of area, or zone, to be protected (business, industrial, warehouse, institutional, residential, or a combination of them) is an important factor. Stations should be near extensive industrial or business districts and near districts where there is a high life hazard, even though this often appears to be out of line with a plan of uniform distribution.

The majority of building fires occur in and around the older portions of most cities where congestion is greater, values are higher, and buildings lack those structural features essential to protect life and to restrict the spread of fire. Therefore there should be no general elimination of stations or companies, nor wider spacing in these portions of most cities. Exceptions are where a station is so situated that runs are all in one direction, or limited access highways or other construction has reduced the effective response.

Topographical features of a city also affect station location and the total number required. A city divided into two or more portions by rivers, bluffs, mountains, and similar natural barriers, with few means for companies to respond from one portion to another, requires additional stations to provide proper protection. The same is true when there are man-made barriers, such as railroad tracks, limited access highways, and canals.

When stations are to be built in outlying areas, it should be remembered that a location too close to the city limits reduces the response area, thereby decreasing efficiency. However, when locating an outlying station and the possibility of the city annexing additional territory exists, the total area requiring protection in the future should be considered.

Many cities have been faced with the problem of providing protection in newly annexed areas. When an area to be annexed is large and well populated, it is possible that at least one additional company and station will be needed to provide proper protection for this area alone. Plans for protecting such areas should be made well in advance of the date of annexation.

A site at an intersection is good as it permits response in more than two directions. Stations should be set well back from the curb line, especially where the street is narrow. The lot should be of ample size so as to provide parking facilities and adequate space for holding company drills. (DeChiara, 356)

This example takes into account the area covered by the service, how that area will change in the future, and specific issues like traffic patterns or man-made and natural barriers.

The location and distribution of schools has some of the same features as fire stations, including adequate parking and curb line restrictions.

Other features also depend on the type of school. For example, elementary schools need space for a fully-equipped playground that can provide a wide range of activities, in addition to the 12-14 acres it takes for an average school. (DeChiara, 331)

The general location of an elementary school should be near the center of a residential area and near or adjacent to other community facilities. In the design, the elementary school should be accessible by footpath from dwelling units without crossing any streets. If streets must be crossed, they should be minor or guarded by crossing guards. Busses will be necessary in low density, rural areas where one school is adequate to serve students spread out over county and agricultural land. (DeChiara, 331)

An ideal school district organization is typically made up of one high school serving several neighborhoods (Figure 1). Each neighborhood has its own elementary school and nursery school. Middle schools are located between elementary schools (Figure 1).

The Center for Livable Communities from the Local Government Commission states that:

Without question, education is a critical

\[ \text{Figure 1. Organization and Locations of Schools (DeChiara, 329)} \]
component of a livable community. The quality of a community’s schools is often one of the key factors that determine where a family — especially one with children — will decide to live. The deterioration of many schools in older parts of our communities is often cited as one of the principal reasons families move to the suburbs.

At the same time, schools have grown in size and have lost their role as community centers. Modern trends in the size and location of public schools have led communities away from neighborhood schools and toward large schools often located along busy streets on the suburban edge, a phenomenon critics refer to as “school sprawl.”

While philosophies promoting larger schools took hold 40 years ago, trends toward siting schools in isolated, disconnected locales on the urban fringe have been pushed by state department of education policies that set minimum acreage standards for schools. The spending policies often dramatically favor new school construction over preservation of older facilities.

Lost in this evolution has been students’ ability to walk or bicycle to school. Also lost is the opportunity for schools to anchor neighborhoods and for their gymnasiums, playing fields and other facilities to be used in off hours by community members. At risk is the preservation of historic buildings that give a community a sense of place and history. Even the quality of education could hang in the balance... (<http://www.lgc.org/community_design/index.html>)

For more information on “school sprawl,” please visit the school link at The Center for Livable Communities from the Local Government Commission web site listed above. In the article, Reducing “School Sprawl” at <http://www.plannersweb.com/sprawl/solutions_sub_schools.html> from the Planning Commissioners Journal, research is sited regarding the effects of large and small schools on student performance.

**PROCEDURE**

1. Take students on a walking tour of the school grounds or around the block. Discuss why the school is located where it is. Ask questions and allow the students to express their ideas. Have one student record answers and statements.
   - What is located around or near the school that can help explain the school’s location? (Houses, fields or grass, parking area, tennis courts, ball fields, etc.)
   - How much land is needed for a school? (Average is 12-14 acres)
   - What other requirements are there for a school site? (Near to many houses, space for parking, accessible by footpath, enough space for play ground and ballfields, enough space for a school building)

2. Review Map It: How Well Do You Know Your Neighborhood with your students. (Or distribute a community map to each student. If your students live in a rural area, some students may need a city map, while others will need a county map. Have students plot their home and school locations and the route they take from home to school.) From the walking tour, discuss the students’ recorded ideas about why the school is located where it is. Ask the students if they can support their ideas with information from their maps.

3. Indicate the locations of all the students’ homes and the location of the school on a large map of the community or overhead transparency. Talk about north, south, east and west, as well as left and right turns that they take on their way to school each day. Discuss patterns:
   - Who lives the closest?
   - Who lives the farthest away?
   - Are all the homes closely clustered around the school?
   - Are there clusters of students living in one area?
   - Do some students travel long distances to school?
   - Why do you attend this school and not another one in the community?

4. As students discuss the variety of factors that must be taken into account when deciding where to build a school, record their ideas on a chart titled “Why Is Our School Located Here?”

5. Allow the students to choose one or two other community service buildings, such as a library, bank, police station, or fire station, to study in the same manner. If possible, walk to the site to investigate the reasons for the location (one mile takes less than ½ hour). Interview a person who works there (or perhaps someone from the local historical society) about the reasons for the location of the service. (If it is
Adaptations/Extensions

1. Invite a community service person (librarian, police officer, fire fighter...) to observe the charts of the community services and have them explain additional reasons for the location of their particular service. Invite the principal to further explain why the school is located where it is.

2. Ask students what services they would like to have in the community that are not currently available. Use the community map to design additions for the town. Ask students where they would build these new services and why.

3. Allow students to look up library books that explain the history of their town. Ask them to search the books for services that were provided in the past and where the services were located. Lead discussion and ask thought provoking questions.

4. Pace off or measure the area around your school. As a class, figure the square footage, then convert to acres. Divide the square footage by 43,560 feet squared per acre (ft²/acre) to find the acreage (or have the teacher do the math conversions). How does your school size compare to the average?

Computer Extensions


3. Public Education Network. Schools and Community Services Initiative, 16 April 2002. <http://www.publiceducation.org/health/projects/index.htm> The “Schools and Community” link describes the various projects that are taking place and how to get your school involved if your students face the issues presented.

ASSESSMENT OPTIONS

1. Have students draw pictures of each of the sites studied. Then have them write one or two sentences under each picture, giving reasons for the location of each service. Additionally, have the students compare the sites and list one or two similarities and one or two differences.

2. Have the students write a short essay about one of the sites studied. Look for reasons the community service is located where it is.

3. Have the students list reasons why the location of these services is important to them.

TEACHER MEMOS

1. Have students draw pictures of each of the sites studied. Then have them write one or two sentences under each picture, giving reasons for the location of each service. Additionally, have the students compare the sites and list one or two similarities and one or two differences.

2. Have the students write a short essay about one of the sites studied. Look for reasons the community service is located where it is.

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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:
- Center for Understanding the Built Environment (CUBE)
- City Hall or Township Office
- Local Historical Society
- United Growth for Kent County

References and Teacher Resources:
- 29 May 2002. <Lessonplans@nationalgeographic.com>

CONCEPTUAL FRAMEWORK REFERENCE

IB3,IF2,IIIA3,IIIB2,IIIC1,IVA