Community Park Design

Students Plan Paths, Green Space, Activity Areas, and Accessibility

Grade Level: 4–8 **Time Required:** 60 Minutes
Subject Areas: STEM • Engineering • Landscape Architecture • Mathematics • Community Planning

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Project Overview

Community parks provide places for recreation, relaxation, exercise, and social gatherings. In this activity, students become landscape architects and city planners by designing a community park that serves people of all ages and abilities. Using graph paper and drafting tools, students will create a scaled site plan that includes walking paths, playgrounds, green spaces, seating areas, and accessible features.

Students will learn how thoughtful planning helps create safe, attractive, and functional public spaces while practicing measurement, geometry, and design thinking.

Learning Objectives

Students will:

- Create a scaled site plan.
- Practice accurate measurement and drafting.
- Design safe pedestrian pathways.
- Incorporate accessibility into public spaces.
- Develop problem-solving and planning skills.
- Apply geometry to landscape design.
- Present and explain design decisions.



Materials Needed

- Graph paper
- Drafting pencils
- Ruler
- Triangular scale (optional)
- Templates
- Eraser
- Colored pencils or markers
- Compass (optional)

Vocabulary

Site Plan – A top-down drawing showing the layout of land and structures.

Landscape Architect – A professional who designs parks, outdoor spaces, and recreational areas.

Accessibility – Designing spaces so everyone can use them safely, including people with disabilities.

Green Space – Areas covered with grass, trees, gardens, or other natural landscaping.

Scale Drawing – A drawing where measurements are reduced proportionally.

Project Instructions

Step 1 — Plan the Park

Students should imagine a new community park and decide what activities it should support.

Possible features include:

- Playground
- Walking trails
- Picnic tables
- Open lawn
- Sports court
- Community garden
- Pond or fountain
- Restrooms
- Parking area

Encourage students to think about visitors of different ages.

Step 2 — Select a Scale

Choose a consistent drawing scale.

Example: 1 graph square = 2 feet or 1 graph square = 5 feet. Students should use the same scale throughout the project.

Step 3 — Draw the Layout

Using graph paper:

- Draw the park boundaries.
- Add walking paths.
- Place activity areas.
- Include landscaping.
- Label every feature.
- Add measurements where appropriate.

Neat, straight lines improve the readability of the design.

Step 4 — Focus on Accessibility

Students should include features that make the park welcoming to everyone.

Examples:

- Wide walking paths
- Wheelchair-accessible entrances
- Accessible playground equipment
- Benches along pathways
- Shade structures
- Bicycle racks
- Drinking fountains

Discuss why accessibility is an important part of public design.

Step 5 — Add Final Details

Complete the drawing by adding:

- Trees
- Flower beds
- Bushes
- Park signs
- Trash and recycling bins
- Lighting
- Bike paths
- Decorative landscaping

Students may use colored pencils to distinguish different park areas.

Extension Activities

Challenge students to enhance their park with:

- Outdoor classroom
- Amphitheater
- Dog park
- Skate park
- Splash pad
- Nature trail
- Pollinator garden
- Solar-powered lighting
- Rain garden
- Community event space

Students can also calculate the percentage of land devoted to recreation, landscaping, and pathways.

Classroom Discussion

Discuss the following questions:

- Which park feature is the most important?
- How does your layout improve visitor safety?
- Why are walking paths important?
- How did you make your park accessible for everyone?
- Which design decision required the most planning?
- What would you change if you redesigned your park?

Encourage students to compare different layouts and explain how each design serves the community.

Assessment Checklist

☐ Used an accurate drawing scale

☐ Applied measurement accurately

☐ Included clearly labeled park features

☐ Used neat drafting techniques

☐ Designed safe walking paths

☐ Organized space efficiently

☐ Incorporated accessible design elements

☐ Presented and explained design choices

Real-World Connections

Landscape architects, civil engineers, urban planners, and parks departments work together to create outdoor spaces that are safe, functional, and enjoyable for the entire community. Every park begins with detailed site plans that carefully organize pathways, recreation areas, landscaping, and accessibility features. Through this project, students experience the same planning process used by professionals while developing skills in drafting, engineering, mathematics, creativity, and environmental design.