

# Majestic Elem. - School/Community Parking Lot Project

## Summary

**PROBLEM SOLVING ACTIVITY** Students will discuss the problem of insufficient parking spaces, identify safety issues through collection of data, data analysis and presentation design. Project will be compiled into a portfolio with a solution proposal to be presented to the school principal and district administration..

## Time Frame

5 class periods of 15 minutes each

## Group Size

Small Groups

## Life Skills

Communication, Social & Civic Responsibility

## Materials

Clipboard, data collection forms (Excel template), Art paper or graph paper, Portfolio binder, digital camera.

## Background for Teachers

Use problem solving techniques of discussion, interview, data collection and analysis, and portfolio design to formulate a solution to the problem. School/community safety issue regarding insufficient parking for staff and parents. Students will use basic math skills and technology to create a portfolio that supports their solution to the problem.

## Student Prior Knowledge

Basic math skills (+,-,) Computer basics including how to record data, input numbers onto an Excel template and basic skills in Excel graph making. Background knowledge for problem/solution format as outlined in worksheet templates.

## Intended Learning Outcomes

Students will learn how to identify a problem and suggest a solution. Students will learn how to apply technology tools in the creation of support documents that substantiate their position - presented in a portfolio format.

## Instructional Procedures

**STEP 1 - DISCUSSION** - Discussion of parking lot issues. Teacher will discuss the problem and "brainstorm" possible solutions using basic problem solving techniques - (interview, gather data, analyze data, create documentation and assemble information into a portfolio format for presentation. Explain the following worksheets. 1. Interview Forms. 2. Data Collection Forms. 3. Problem Solving /Writing Activity Form. 4. Map Form.

\*\*\*\*\* **STEP 2 - INTERVIEW** - Using the Interview worksheets, Interview the following : 1. School Principal - point of view, problems 2. School Secretary - collect data re: # of paid staff requiring parking spaces - office, cafeteria and custodial staff, teaching staff, Title I, Pre-school, Head Start, Boys & Girls Club. 3. Officer Friendly 4. Teaching

Staff 5.

Parents\*\*\*\*\*

STEP 3 - DATA COLLECTION - 1. Working in small groups, students will collect data by counting the number of cars that have been parked curbside when all available - students will record this number four times daily during a regular school week. (Use theTime Chart Template to record this data). 2. Students will then input the data onto the Excel Template. 3. Students will then chart (graph) the data collected on the Excel Template.

\*\*\*\*\* STEP 4 - WRITING ACTIVITY

Write a summary report (using template) filling in appropriate information as to problem, data, and suggested solution.\*\*\*\*\*

STEP 5 - MAP ACTIVITY - Students will create a "map or illustration" of the current parking areas, demonstrating the number of slots available, and an "overlay" of a possible solution that would provide for additional parking

.\*\*\*\*\* STEP 6 - SUPPORT

MATERIALS - Using a digital camera, the students will photograph the parking lot at various times during the school day.\*\*\*\*\*

\*\*\*\* STEP 7 - PORTFOLIO - Class to create a portfolio of the project, including interviews, data, and pictures. The portfolio will be presented to the school principal and district administration.

Strategies for Diverse Learners

Students to work in small groups as assigned by teacher to accommodate variety of student needs.

Extensions

Identification of Math Equations used in this project. Discussion of a "Suggestion Box" and research on the use of suggestion boxes by businesses within the community. Discussion of "How you can make a difference in your community".

Assessment Plan

PORTFOLIO To include: Interviews, Excel graphs, digital pictures, Writing Activity, and Map.

Authors

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