

name(s)

date

### Content Focus

- Built Environment 2 (Space, Form)
- Art (Principles of Design)
- Math (Geometric Shapes and Relationships)

## Architecture 101

### Space and Your School: Activity #2

Prerequisites – Basic Skills: Measuring & Estimating, Architectural Drawing

How much space do you need?

- Measure the length and width of your classroom. What is the total area, in square feet, of your classroom?
- Divide the area of the classroom by the number of people in your class. How many square feet is there per person? (Using masking tape, mark out a square on the floor to represent the amount of floor space per person in the classroom.)
- Does this seem like a lot of space? How would the arrangement of the classroom change if there were 15 more people in the class? if there were 15 fewer people?
- Now examine other spaces in your school building. A floor plan of your school would be helpful to determine their dimensions. If you don't have a floor plan, use tape measures to get the dimensions of these other spaces, if your school has them.
- after calculating the square footage of these spaces, estimate how many people are in them during *peak use* times, that is, when they are the busiest.
- Divide the square footage of the spaces by the number of people to get the average area per person in each space. Use the chart below to organize your findings.

Complete the same process for the school building as a whole. If you do not have a plan of your school, estimate its dimensions by taking a walk around its exterior. Draw a rough plan from which to calculate the area of the building's footprint. Make sure to add the areas of any additional stories.

Space	Area in square feet	# of people during peak use times	Area per person
Classroom			
Hallway			
Cafeteria			
Gym			
Library			
School			

- Discuss: Which spaces within the school had the greatest area per person? Which had the least area? What types of activities take place in each space? What objects other than people need to fit in each space? How did the average area per person in your school compare to the averages of individual spaces?

Extension: compare the amount of space per person in your school with the amount of space per person in your home.

