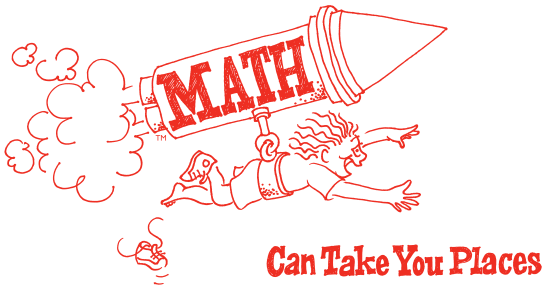

Make Room

3rd - 6th Grade

FOCUS AREA
Problem Solving

ACTIVITY TYPE
Budgeting/Life Skills

MATH GOAL
To use measurement to make a scale model

RECOMMENDED NUMBER OF STUDENTS
Students work in pairs up to 30 children

TIME NEEDED
60 minutes

OBJECTIVE

To plan the area arrangement for a new game area or for an outside carnival.

MATERIALS

- Pencil and paper (for each student)
- One-inch grid paper (one page for each student)
- Tape measures (one for each pair)
- Colored construction paper
- Glue
- Markers

BEFORE YOU START

- Decide which area you want the children to use to set up their carnival or game room. It can be an inside space or an outside space, such as a yard or parking lot. You may want to measure it before hand or along with the children to check for accuracy.
- You may want to assign different groups to different areas and have the group choose which area would work best for the game room or carnival.
- To simplify this activity, have students draw their furniture and game stations on the grid paper with markers instead of cutting out the pieces from construction paper and gluing them.

HOW TO START

Take the students to the area and explain to them that they are going to help make imaginary plans to turn this area into a game room (or a place to host a carnival).

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STEPS

Step 1

Ask the kids to measure the perimeter of the area to the nearest foot. Explain that the perimeter is the outside edge of the room. (To make it more challenging, ask the children to use the metric measurement of meters.) Let them draw a sketch of the area on scratch paper and write down the measurements.

Step 2

Return to the area where the students are going to work. Ask for volunteers to give ideas on how they can make their sketches more accurate and show them on their grid paper. One of the children should mention creating a key or a legend. For example, one inch on the paper could equal one foot (or meter). On their one-inch grid paper, ask them to mark out the dimensions of the room. Be sure to remind them to include doorways and closets.

Step 3

Next, have the pairs brainstorm to decide what games they would like to include in the room. Students will probably mention pool tables, arcade games, a TV area and tables for board games.

Step 4

Ask them to create models of different stations they would like to include using construction paper. Students can go on the Internet, or actually go measure the perimeter of existing tables and games to get an idea of how big to make them. Use the key of 1 in. = 1 ft. (or m.) to create the pieces.

Step 5

The pairs then decide where to place each of the game areas. After they agree on what games can fit into the room and where to place them, allow students to glue the pieces into place.

Step 6

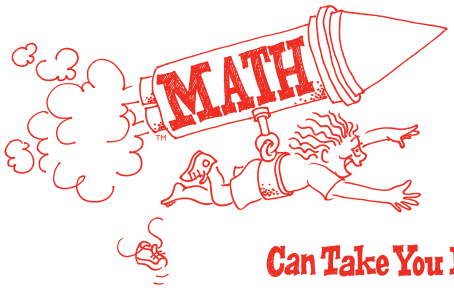
Allow the pairs to present their ideas to the whole group. If all groups are arranging the same room, possibly have the class vote for the presentation they like best.

OPTIONAL ACTIVITIES

- Allow children to make advertisements or commercials for the game night or carnival.
- Actually have an event and use the layout.
- Invite an interior designer or an architect to come speak to the class about how they use math in their design projects.

SUGGESTED *MATH CAN TAKE YOU PLACES* CONNECTIONS

From *Math Can Take You Places Classroom Materials,* lesson plans "Mavericks and Measurements" (Measurement) and "Picture This" (Patterns)
From *Math Can Take You Places After-School Kit,* activity "Mavericks and Measurements" (Measurement)



Activity Cue Card

- Divide the students into pairs.
- Measure the dimensions of the room where the pretend game room will be set up. Then, ask the students to draw a scale model of the room on one-inch grid paper.
- Students brainstorm with their partner ideas for what to include in the room and estimate the dimensions of the furniture using the Internet or by measuring other pieces of similar size.
- Pairs work to cut out scale construction paper shapes to represent their different areas and glue them to their grid paper.
- Each pair shares their ideas with the class. Students vote for their favorite designs.