

Dream Design

4th - 6th Grade

OBJECTIVE

To plan the area arrangement for a dream bedroom.

MATERIALS

- Tape
- Metric rulers
- Colored pencils or markers with multiple colors for each student
- Newspaper ads, catalogs and magazines - enough for all the participants

From Math Can Take You Places After-School Kit

- One-centimeter grid paper - two per student
- Dimensions Sheet - one per student

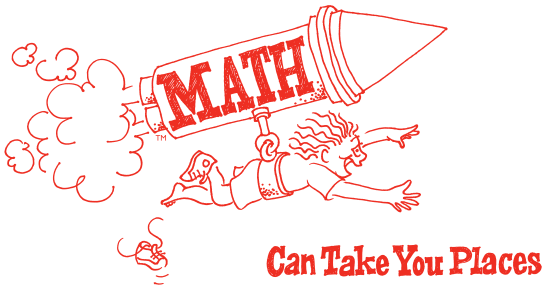
BEFORE YOU START

Collect newspaper circulars so students can shop for decorative ideas. It may also be useful to collect home design magazines and mail-order catalogs. Students can also use the Internet for ideas if computers are available.

HOW TO START

Say: "If you could create the bedroom of your dreams with no limit as to how much money you could spend, what would it look like?" (Take a few responses.)

Encourage students to really think big. If necessary, give examples: swinging bed, any kind of gaming system, 100-inch plasma TV, drum set, huge bean-bag chairs, etc.



FOCUS AREA

Problem Solving

ACTIVITY TYPE

Creative Expression

MATH GOAL

To practice using area and scale to create a model

RECOMMENDED

NUMBER OF STUDENTS

Individual activity
(up to 30 children)

TIME NEEDED

45 minutes

STEPS

Step 1

Have students brainstorm to decide what they would like to include in their dream bedroom. A good idea would be to give them several categories, like furniture, appliances, electronics, or make-believe items. Tell students there is no limit to what they can put in their bedrooms. The only condition is that the room must have the following dimensions: 12 feet by 15 feet in area. Let students browse the newspaper circulars and magazines for additional ideas.

Step 2

When students finish brainstorming, ask for volunteers to share their thoughts on how they can take their floor plan ideas and accurately show them on their grid paper. One of the children should mention creating a key or a legend. For example, two centimeters on the paper could equal one foot. On their one-centimeter grid paper, ask them to mark out the dimensions of the room. Let them draw a sketch of the area on one-centimeter grid paper and write down the measurements.

Step 3

When the dimensions of the room have been sketched (12' x 15'), students may begin drawing in the plans for their dream room. All items drawn in the room must be to scale with one foot equaling two centimeters. Students can go on the Web or use the Dimensions Sheet to get an idea of how big to make their dream furniture, etc.

Step 4

Allow the students to present their ideas to the whole group or let students anonymously display their dream bedrooms and possibly have the class vote for the bedroom they like best.

WRAP UP

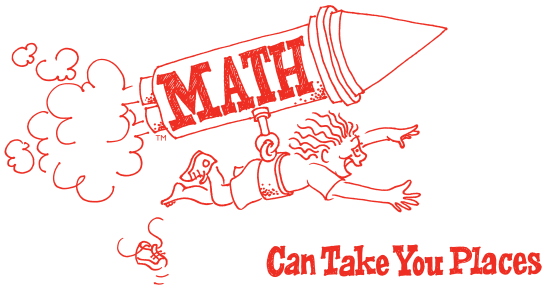
Discuss why interior designers and architects make plans before redecorating or constructing a building or room. (Possible answers: It saves time, saves money, helps with the creative process.) Also, ask the students to discuss all of the math skills that they had to use to create their rooms

OPTIONAL ACTIVITIES

- Now that all of the students have had an opportunity to design a room, have them create their own interior designer business cards. Students can research the basic layout of a business card using the Web Resources or soliciting a card from an administrator or their parents.
- Use strategies learned from the activity “Picture This” and have students enlarge or reduce the size of their rooms. Then challenge them to redesign their dream bedrooms.

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

- Give students time as a group to brainstorm what things should go in a dream bedroom. They may use newspaper circulars or magazines to get additional ideas.
- After brainstorming, have students sketch the required dimension of the room (12' x15').
- Then students will work individually sketching their ideas into their rooms. All furniture should be to scale. (1 foot = 2 centimeters)
- When finished, students can present their dream rooms to the rest of the group and vote for the best design.

Dimensions Sheet

Furniture	Width	Length
Twin Bed	3 feet	7 feet
Full Bed	4 1/2 feet	7 feet
Queen Bed	5 feet	7 feet
King Bed	6 1/2 feet	7 feet

Furniture	Width	Length
Dresser	3-4 feet	1 1/2-2 feet
Night Stand	1 1/2-2 feet	1-2 feet
Computer Desk	2-5 feet	2-2 1/2 feet
Desk Chair	1 1/2 feet (seat)	1 1/2 feet (seat)

