

Redecorating our Classroom

Standards:

- Students will be able to devise and implement strategies to correctly measure line segments and angles
- Students will be able to calculate the area and perimeter of two-dimensional figures
- Students will contribute productively to group work

The school improvement team at NCHS would like to redecorate our math classroom. In order to determine if the redecoration is possible, they first need to know how much it will cost. If carpet costs \$3 per square foot and each can of color paint costs \$30 and covers 300 square feet, how much will it cost to redecorate the classroom?

You and your partner must first draw and label a diagram representing our classroom. Measure the necessary dimensions and label them on your diagram. Find the area of the walls and the area of the floor of the classroom. Use these numbers to find out how many square feet of carpet and how many cans of paint are needed. Finally, determine how much the entire project would cost. Show all of your work. I will also be observing your work with your partner and evaluating how well you work together.

Rubric for classroom redecoration:

	Poor	Good	Excellent
Accuracy of Room Measurements	Diagram is not present or not labeled or some measurements are more than 1 foot off (1 pt)	Some measurements are more than 6 in. off or diagram is not clearly drawn or labeled (2 pts)	Diagram is accurate and labeled and all measurements are correct within 6 in. (3 pts)
Accuracy of Area Calculations	Area for walls or carpet is not found, or the numbers are wrong and there is little accurate work (1 pt)	Calculations are shown, but there are minor errors that lead to incorrect answers (3 pts)	Area of both walls and floor is accurate and work fully supports the answer (5 pts)
Accuracy of Cost Calculations	Cost calculations are incorrect and there are major errors (1 pt)	Calculations are shown, but there are minor errors that lead to incorrect answers (2 pts)	Correct cost is found based on area calculations (3 pts)
Group Work	Group members do not work together (0 pts)	Group members work together, but it is obvious that one student is completing more of the work (2 pts)	Each group member is contributing equally to both the measurements and calculations (4 pts)

Total score: _____ / 15