

Area – Interior Design

Problem – Proportion

Standards

National FACS Standard(s)

FCS 11.2.3

Determine the effects that the principles and elements of design have on aesthetics and function.

SD Mathematics Standard(s)

Math 9-12.G.2.3

Use proportions to solve problems.

Problem

You will be determining ratios of two lines to one another so that it has good proportion. Then you will measure a chair's legs and compare them to its' seat and back. With this information, you will determine if the chair has good or bad proportion.

What will you do?

Draw a line five inches long. Label it "A". Draw a second line, five inches long. Label the left side "B" and the right side "C". The ratio of line "C" to "B" should be the same as "B" is to "A". How many inches long is line "B"? How many inches long is line "C"? (Hint: It will be a ratio of 2:3 or 3:5, etc.)

Using a chair in the classroom, measure the height of the legs, from the floor to the seat. Then measure the height, from the seat to the top of the back. Draw lines to represent these measurements (You could use scale here.). Determine the ratio of the legs to the seat/back. Does the chair have good or bad proportion? Explain your reasoning.

What will you need?

Tape measure

Calculator??

Lineless paper (poster board)

How will you be evaluated?

Teacher-generated checklist:

_____ read the tape measure correctly

_____ measured the chair accurately

_____ drew accurate lines to represent chair parts and measurements

_____ recognized that chair had good or bad proportion and why/why not

Supplemental Materials

Chair to measure

Resources

<http://goldenumber.net/goldsect.htm>

Lewis/Turner, Housing Decisions , Goodheart-Wilcox Company, Inc, 2000.