

Lesson #1: Proportions

Objectives

Students will be able to...

- Demonstrate their understanding of proportions and be able to sketch a proportional wall in the classroom.

Common Core Standards

LS 11-12.6
RSIT 11-12.2
RLST 11-12.2
Problem Solving and Critical Thinking 5.1
Health and Safety 6.0
Technical Knowledge and Skills 10.0, 10.1, 10.2, 10.3
Cabinetmaking and Wood Products Pathway A1.8, A1.9, A4.4, & A 6.1
Residential and Commercial Pathway D 2.1, D3.1, D3.2, D3.3, D3.4, D3.5, D3.6, D3.7

Materials

Proportions Example Handout
Proportions Worksheet

Lesson Sequence

Explain *Proportions* - The relationship that exists between the size, number, or amount of two things. Give examples.

- Hand out the *Proportions Example handout*. Discuss how the example fits the definition of proportion. Answer any questions students may have. (10-15 minutes)
- Hand out the *Proportions Worksheet*. Assign students a wall within the shop or classroom that they must sketch out. They must include everything found on their wall (i.e. switches, clock, doors, cabinets, etc.). The objective of the assignment is for each student to keep everything on the wall, in relative proportion to the other objects on the wall. Students are not expected to make their sketches perfect; they are just to do their best. They are not allowed to use any type of measuring devices for this assignment. Collect student's sketches at the end of the period. (35-40 minutes).

Assessment

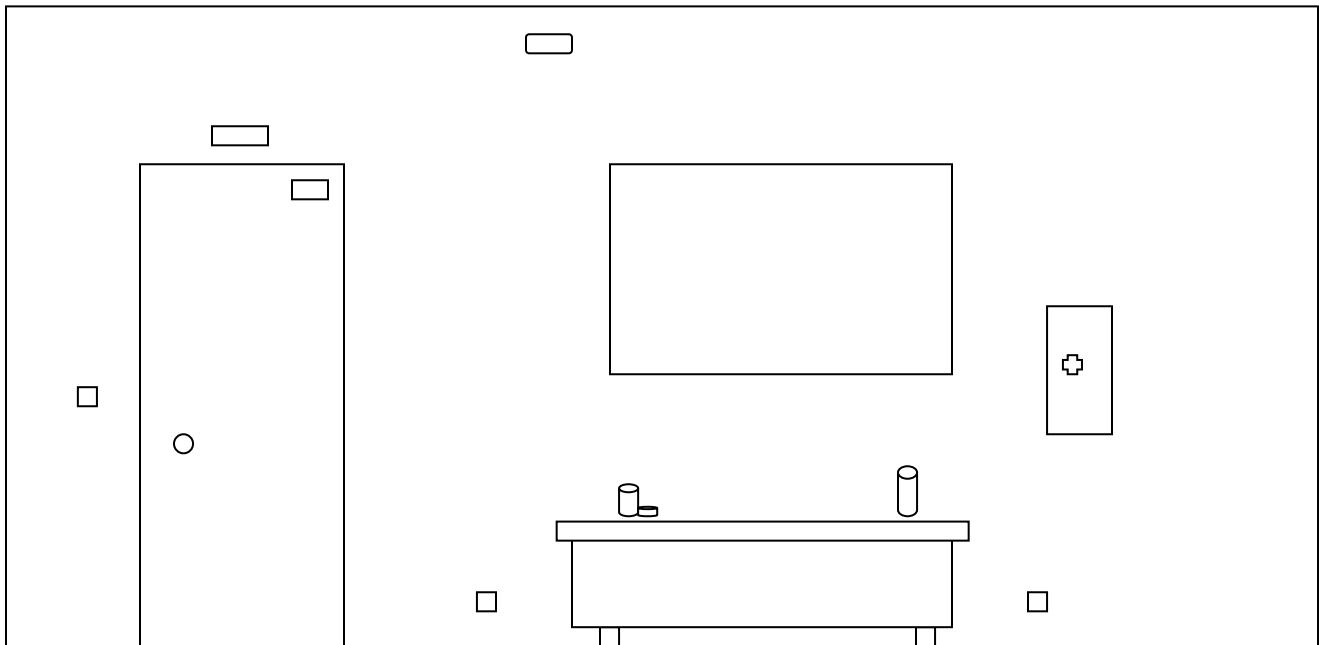
Monitor student understanding throughout the class period by questioning.
Roam around the classroom while students are working independently on their proportional sketches. Check for understanding and clarify any misconceptions.
Look at student's proportional sketches to check for student understanding of proportions and reteach as needed.

Accommodations/Modifications

One on One Support
Extra Time If Needed
Visuals to Support Students As Needed

Proportions Example

After the instructor picks out an interior wall for you, using an un-scaled straight-edge and a blank piece of paper, draw the wall. Draw in any doors, windows, outlets, posters, etc. The object of this exercise is to give you experience putting objects into proportion, according to size, shape, and location.



Proportions Worksheet

After the instructor picks out an interior wall for you, using an un-scaled straightedge and a blank piece of paper, draw the wall. Draw in any doors, windows, outlets, posters, etc. The object of this exercise is to give you experience putting objects into proportion, according to size, shape, and location.

