

Academic/Career & Technical Related/Demonstration Lesson Plan

Instructor Georger

Date _____

Program/Class JR CARPENTRY

Period: 1-4a

State Indicator/Competency:

- 14.1 Interpret construction drawings and demonstrate construction layout procedures
- 14.8 Layout walls and rough openings
- 14.9 Frame walls and rough openings

Instructional Objective(s):

- The students will be able to calculate studs for a house with 90% accuracy.
- The students will be able to calculate plates for a house with 90% accuracy.
- The students will be able to calculate sheathing for a house with 90% accuracy.

Materials:

- House plans
- pencil
- Paper
- calculator

Method of Instruction:

student led

Activities:

- A. Methods of Estimating Materials for Walls
 1. Studs
 - a. Determine the total linear feet of exterior wall.
 - b. If spaced 16" OC, estimate one stud for every linear foot of wall.
 2. Plates
 - a. Multiply the total linear feet by 3.
 - b. Add 5% for waste
 3. Wall Sheathing
 - a. Multiply the total linear feet of wall by the wall height to find square feet of wall.
 - b. Deduct the area of any larger openings. (openings over 32 sf)
 - c. Add 5% for waste.
 - d. Finally, divide the total area by 32 to determine number of sheets.

Assessment:

- Calculate the # of studs required for the house _____
- Calculate the # of studs required for the garage walls _____

- Calculate the lineal feet of plates required for the house _____
- Calculate the lineal feet of plates for the garage walls _____
- Calculate the sheets of 4' x 8' OSB for house walls _____
- Calculate the sheets of 4' x 8' OSB for garage walls _____