

Lesson 8 – Exterior Wall Assembly

Supplies Needed

- Wood pieces cut to specifications as stated on blueprint
 - Pieces associated with each wall should have their ends painted with the colour specified on the blueprints
- Tape measure with both imperial and metric
- Green painter's tape
- Plastic storage container

Part 1

Student/Team Instructions:

1. Make four groups of 3-6 students.
2. Assign one wall to each group.
3. Review parts list and inventory to ensure everything is in the kit.
4. The Blueprint shows where walls will intersect after all four are assembled. This is the shaded area on your blueprint. You do not have these pieces in your kit.
5. Layout wall pieces on a flat table, measuring for appropriate placement of all pieces. Refer to the blueprint for exact dimensions and locations of the wood on your wall.
6. Assemble the wall.
7. Tape intersections of all joints with painter's tape.
8. When you have completed your wall, join the other three groups and assemble the four walls into a building.
9. Install top wall plate (long piece) when all four walls are assembled together. The top plate will be used to attach and secure the four walls together.

Part 2

Can the walls go together?

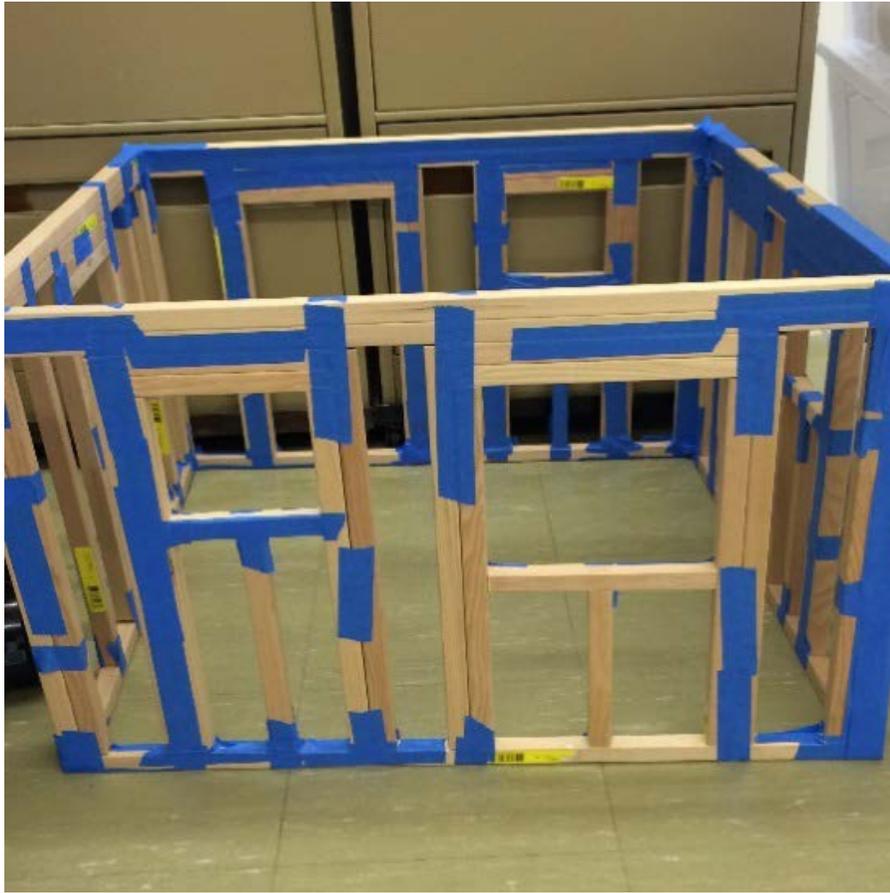
Purpose – Is to raise the walls and see if everything fits. If the walls don't fit then students will have to problem solve.

Group instructions:

1. Stand four walls together and join at the corners. Be careful as the walls will not have a lot of strength until you tie them all in together with the top plates.
2. Add the top plate making sure the joints overlap as indicated on the blueprint.
3. Tape corners to provide strength. How can you provide strength to ensure your four walls will not cave in? Use the masking tape to provide support for your walls to stand up together. Tape the top of the walls across (+) to provide support.
4. Check the squaring of your wall. Measure the diagonals of the four walls. The measurements should be the same.
5. Congratulations! As a team you built a wall. As a group you built a house.
6. Disassemble removing all tape and return parts to their original box as per the letter/number /color code on each piece.
7. Check your inventory list. Make sure your letter and numbers match up. Please RETURN EVERY PIECE to your box. Look around your work space; did you miss anything?

What students need to look for?

- Do the walls fit together to be structurally sound?
- Are the vertical members (studs) evenly spaced?
- What is the purpose of the double top plate?
- If you were going to hang a picture on this wall, where would you hang it?
- Why do you need to have a header?
- Why do you have a lintel?
- How can you brace the walls together? What is the purpose of bracing?
- What else is going to add strength to your building? Sheathing, roof, bracing?



Lesson 8 - Skilled Trades Teacher's Kit