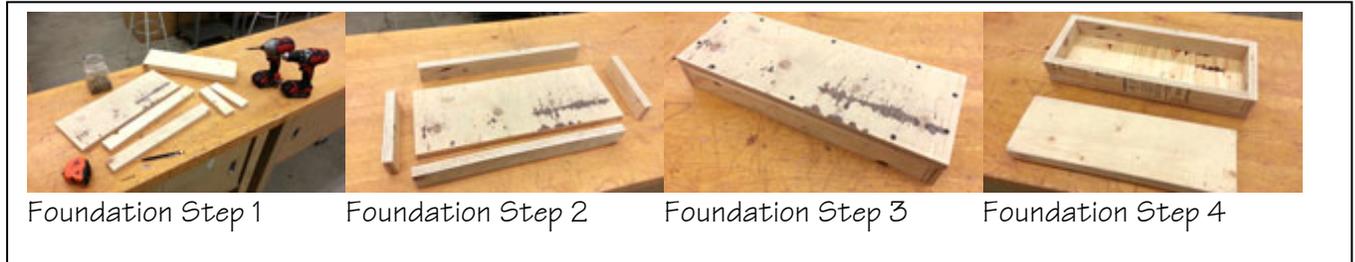




## Building Concrete Foundations – Class Project Steps

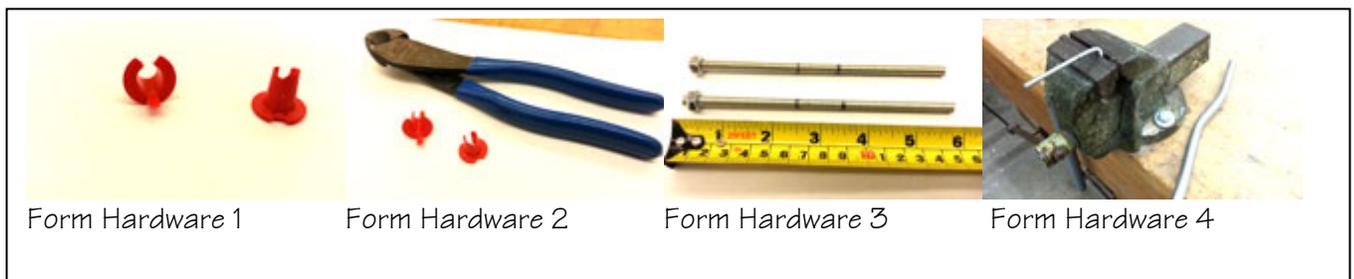
### Creating Wall Foundation Form Process

1. Using 1/2" for the bottom piece and 3/4" plywood for the sides, figure out the best way to make the best use of your cuts to minimize waste, i.e. layout and plan your cuts
2. You will need to make a form the size of 17.5" long by 5.5" wide by 2" high and screw together the sides and then the bottom to the sides
3. Using your circular saw, clamps, make straight accurate cuts for the bottom and side pieces, use the power miter saw to cut lengths
4. Use a 2 by 6 cut to 17.5" to shape the edges, then mark and pre-drill the holes to prevent splitting, then use screw gun to screw 2 screws per corner
5. Screw bottom into sides using two screws on the width pieces and 3 for the length pieces



### Form Hardware, Wall Anchors, and Plastic Preparation

1. For rebar, use the 3/16" steel rod bent in a smaller rectangle 16 by 3" rectangle
2. Take four electrical anti-shorts and use diagonal/side cutters to trim nib off and create a groove to support mini rebar just made
3. Cut with hacksaw two 6" lengths of 1/4 -20" galvanized all thread and then carefully bend 90 degrees at about half way for use as wall anchors



### Mixing, Pouring, and Finishing Concrete Wall Foundation-sample Process

1. First get your safety glasses, rubber gloves, and ensure you have long sleeved shirt and long pants on
2. Ensure your form is ready for the pour of the cement, rebar is installed, wall anchors are ready, mixing container, cement/concrete tools ready to go, and you have enough time to complete the whole process - half a period



# Construction Tech

Name:

Western Technical-Commercial School

Date:

Section #

3. You will need to enough concrete to fill your form 17.5" \* 5.5" \* 2" which is about 2.75" deep in supplied 9" \* 9" plastic nail container (which we will be using to mix the concrete in) and also half a liter of water
4. Pour pre-concrete mix into mix container to 2.75" high, make a small cavity in the centre and pour 300 ml of water in and mix with small shovel or scraper
5. Mix until concrete mix is pasty wet and uniform
6. Pour into form with plastic and mini rebar in place, being careful to not knock down support chairs and mini rebar down
7. Using hammer, lightly bang the sides of your form to settle the concrete into the form tighter
8. Use floater when concrete is topped up to level and finish the top surface of concrete
9. Accurately place the two 1/4" wall anchors into position - centre and straight about 3.5" in from the sides and ends, then clean up top of concrete surface finish
10. Clean up area, your tools, and mixing container



Concrete Mix & Finish 1   Concrete Mix & Finish 2   Concrete Mix & Finish 3   Concrete Mix & Finish 4



Concrete Mix & Finish 5   Concrete Mix & Finish 6   Concrete Mix & Finish 7   Concrete Mix & Finish 8

## Evaluation:

Below is a breakdown of the project sections and what must be evaluated:

Evaluation Breakdown Component Descriptions	Marks
Always double check that you have completed all components for full marks.	
Foundation Handout - 📄 handout blanks filled in, questions answered	30
Foundation Form - 17.5" * 5.5" * 2" screwed together, tight accurate fit, with hardware ready	20
Concrete Mix, Pour, & Finish- amount, process, rebar & anchors, finish and clean-up	20