



**FIRST NATIONS
HOUSING CONFERENCE**
EXPLORING CHALLENGES,
EMPOWERING SUSTAINABILITY



**BUILDERS
CHALLENGE**

FOCUS ON YOUTH

TRAINING GUIDE

MOLD REMEDIATION: STEP BY STEP



Government
of Canada

Gouvernement
du Canada



PRESENTED BY



FIRST
NATIONS
HOUSING
COMMUNITY



00:00:00

RENEWAL
MAY 2018



EXPLORING CHALLENGES EMPOWERING SUSTAINABILITY

CONTENTS

YOUTH SKILLS TRAINING AGENDA	4
INTRODUCTION	5
JON EAKES	7
SAFETY PROTOCOLS	8
BIG PICTURE	9
CRITICAL STEPS	10
PROJECT OVERVIEW	11
PRESHOW BUILD – WHERE WE START	12
CHALLENGE 1	13
CHALLENGE 2	18
CHALLENGE 3	21
CHALLENGE 4	27
ACKNOWLEDGMENT	35

Hosted By





YOUTH SKILLS TRAINING AGENDA

DAY 1 | TUES, FEB 4

9:45 - 10:00 AM: Arrival
10:00 - 10:15 AM: Check-In
10:15 - 10:30 AM: Opening Ceremony
(Introduction)
10:30 - 10:45 AM: Health Break
10:45 - 11:45 AM: Practical Session (Demolition &
Restructuring)
11:45 - 12:45 PM: Lunch Break
12:45 - 1:45 PM: Practical Session (Restructuring
Cont'd & Vinyl Flooring)
1:45 - 3:00 PM: Practical Session (Vinyl Flooring
Cont'd & Floor Moulding)
3:00 - 3:15 PM: Health Break
3:15 - 3:30 PM: Workshop Wrap up

DAY 2 | WED, FEB 5

9:30 - 9:45 AM: Arrival
9:45 - 10:00 AM: Check-In
10:00 - 10:45 AM: Builders Challenge: Focus on
Youth (Demolition)
10:45 - 11:15 AM: Health Break
11:15 - 12:00 PM: Builders Challenge: Focus on
Youth (Restructuring)
12:00 - 1:15 PM: Lunch Break
1:15 - 2:00 PM: Builders Challenge: Focus on
Youth (Vinyl Flooring)
2:00 - 2:30 PM: Health Break
2:30 - 3:15 PM: Builders Challenge: Focus on
Youth (Floor Base Moulding)
3:15 - 3:30 PM: Challenge Wrap up

DAY 3 | THURS, FEB 6

9:30 - 9:45 AM: Arrival
9:45 - 10:00 AM: Check-In
10:00 - 10:30 AM: Day 1 Recap
10:30 - 10:45 AM: Health Break
10:45 - 11:45 AM: Day Two Recap
11:45 - 1:00 PM: Lunch
1:00 - 2:00 PM: Youth Skills Training Program
(Pikangikum Overview)-Jon
Eakes
2:00 - 2:30 PM: Youth Skills Challenge
Certification



INTRODUCTION

APPROACH MOLD AND ROT REMEDIATION AND RESTORATION IN AN ORGANIZED WAY.

Mold and rot are common but serious issues that can compromise the structural integrity of buildings, reduce indoor air quality, and pose health risks to occupants. Effectively addressing these problems requires a methodical approach to ensure that remediation and restoration efforts are thorough, efficient, and sustainable. Without proper planning and execution, mold and rot can quickly reoccur, leading to higher costs and ongoing damage.

This guide outlines an organized approach to mold and rot remediation and restoration, emphasizing the importance of identifying root causes, employing appropriate remediation techniques, and preventing future occurrences. By following a structured process, property owners, contractors, and restoration professionals can achieve long-term results while maintaining safety and compliance with industry standards.



The process involves several key steps:

1. **Assessment and Diagnosis:** Identifying the source of moisture, the extent of the damage, and the type of mold or rot present.
2. **Containment and Safety Measures:** Implementing protective measures to prevent the spread of contaminants and safeguard workers and occupants.
3. **Remediation:** Using proven techniques to remove mold and repair rot-affected areas while addressing the underlying causes, such as leaks or poor ventilation.
4. **Restoration:** Rebuilding and restoring damaged structures with materials and methods that reduce the risk of future issues.
5. **Prevention and Monitoring:** Establishing proactive measures, such as regular inspections and moisture control, to minimize the likelihood of recurrence.



JON EAKES

TV and Radio personality and all-around handyman Jon Eakes will host the exciting Builders Challenge; Focus on Youth event.

Jon has been an expert in the field of home renovation for over 30 years and starred in the first national home renovation TV show in North America.

Today, Jon brings his home renovation message to regulatory, corporate and government agencies through Radio, TV, and gatherings like the First Nations Housing Conference.



SAFETY PROTOCOLS

BASIC RULES OF SECURITY FOR THIS TRAINING SESSION

- Wear your safety glasses whenever operating a power tool, even just an impact driver. Screws or saw dust can fly into your eye before you can react and close your eye. Wear your safety glasses when watching close up to someone else who is drilling, cutting or hammering as well
- Any time you change blades in a tool like the Jigsaw, remove the battery to be sure the saw won't jump into action while you have your fingers on the blade
- Always keep the shoe of the jigsaw in contact with the surface being cut during any cut –don't ride the blade, the saw may go out of control
- When using a utility knife, keep your fingers and hands out of the line of the cut – the knife could slip
- When using hand and power tools, gloves serve two purposes:
 1. To improve your grip avoiding slipping, and
 2. To protect from getting cut. You have been given special cut resistant gloves made for working with sharp edge sheet metal, glass and utility knives
- When on a renovation site where work is happening over your head, always wear your hard hat
- If you are working in the open where vehicles pass, always wear a reflector vest
- If working with small material that can slip easily, use clamps to secure it before using your tools
- If at any time you feel out of balance or uncomfortable or even just a bit tired, stop and think about safety before continuing
- The Saint John's Ambulance service is stationed in the hotel during this training. Don't hesitate to report to them if you have a need.



BIG PICTURE

Start with the Whole Picture in Mind

1. With a mold problem, first the mold or wood rot has to be removed
 - We can call this the demolition and sanitation part of the project
2. Then any structural problems have to be corrected
 - Joists and studs may have to be removed and/or strengthened
 - Floor and wall coverings may need to be changed
 - What does not need to be removed needs to be disinfected
3. If the floor covering can't be cleaned it must be replaced
 - This is an opportunity to make it more water resistant than before
4. Baseboard trim not only looks good but protects the vinyl floor



CRITICAL STEPS

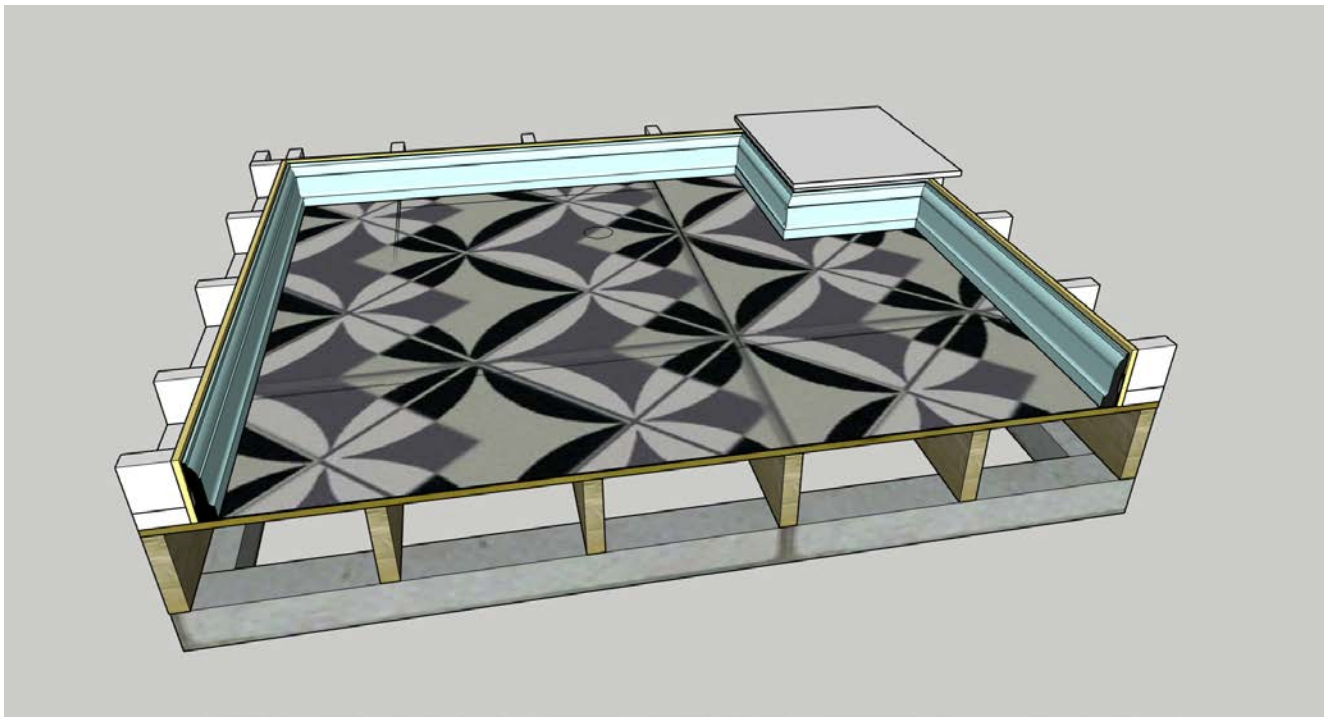
THE BUILDER'S CHALLENGE IS AN OPPORTUNITY TO TOUCH ON EACH OF THESE CRITICAL STEPS IN MOLD RESTORATION.

- The Builder's Challenge is divided into the same 4 steps as set out above
- Each student will be assigned to one of these 4 steps and will get specific tool training on Day 1 that they will apply on day 2 at the Conference Challenge
- On Day 2 they will team up with a conference participant, who does not know what they must do, so the student needs to work together with the other participant to quickly accomplish each challenge
- On Day 3 students will have the opportunity to work with tools that they did not already work with



PROJECT OVERVIEW

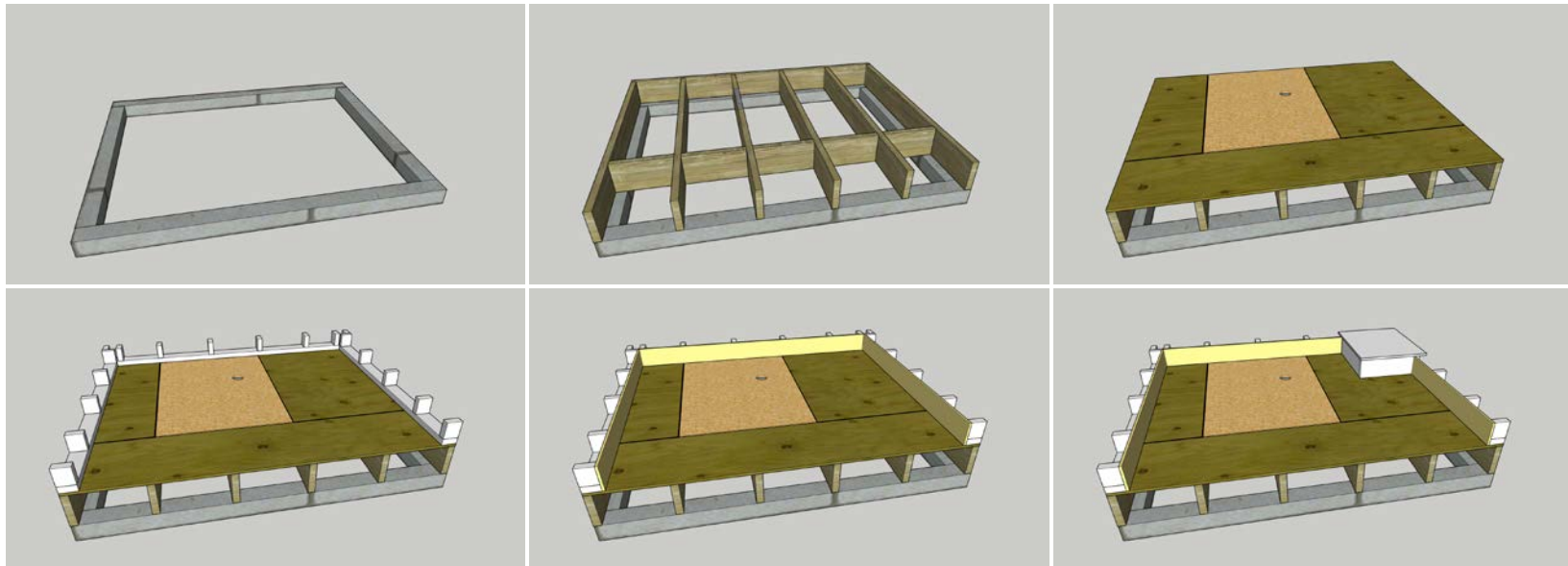
THIS IS THE BATHROOM AS IT WILL LOOK WHEN ALL FINISHED – AFTER ALL 4 CHALLENGES.





PRESHOW BUILD – WHERE WE START

- Joists on Beams – plywood subfloor with rotten section in OSB
- Stud walls (4" high) on three sides covered with drywall
- Counter base in the corner





CHALLENGE 1

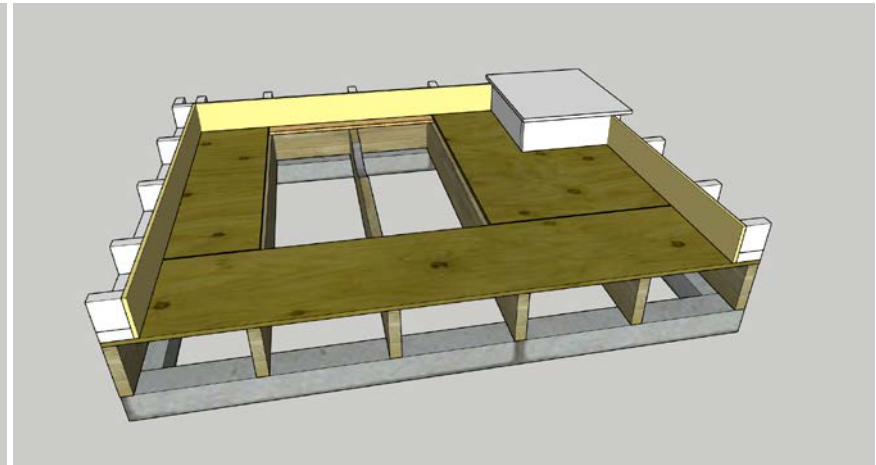
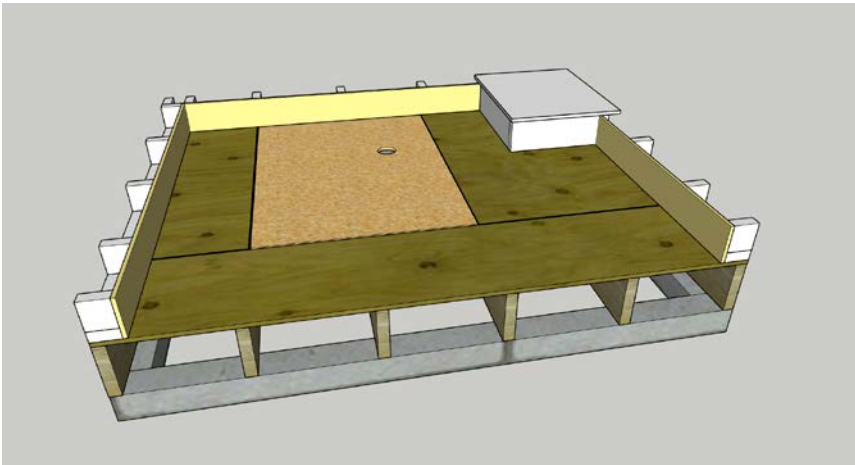
DEMOLITION AND SANITATION

- Remove rotten subfloor panel
 - » Jig Saw rotten sub-floor section next to wall
 - » Dig out nails in the rotten panel with a Cat's Claw
 - » Chisel out the sub-floor over the joists
 - » Lift out the panel
- Cut out rot in joist with a jigsaw
- Treat weakened wood - With a water spray, symbolically kill all remaining fungus
- Sister the weak joist



REMOVE ROTTEN FLOOR PANEL

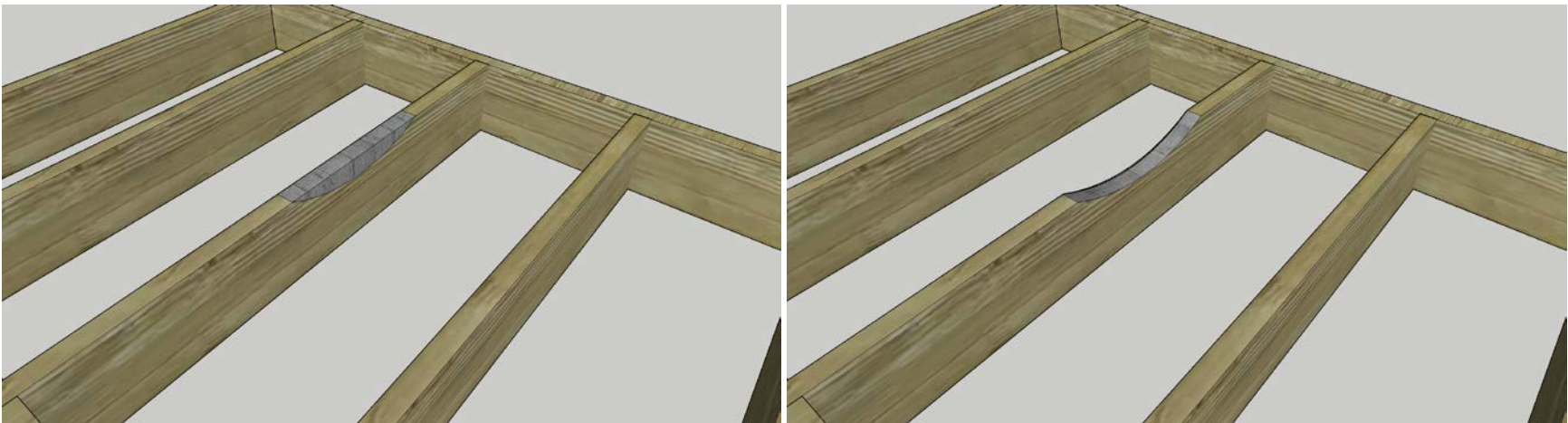
- Draw cut-line on sub-floor next to back wall
 - » Cut with jigsaw with a plunge cut
- Use hand chisel to cut out sub-floor over joists
- Use a Cat's Claw to remove flooring nails for minimum floor damage





CUT OUT ROT IN JOIST

- We have simulated rotten wood with black paint next to the toilet drain hole
- Use Jigsaw to cut out “soft” wood rot
- Use spray bottle to “treat” remaining mold in joist





TREAT WEAKENED WOOD



END CUT TREATMENT
KILLS FUNGI

GOOD



WOOD HARDENER
KILLS FUNGI
HARDENS WOOD

BETTER



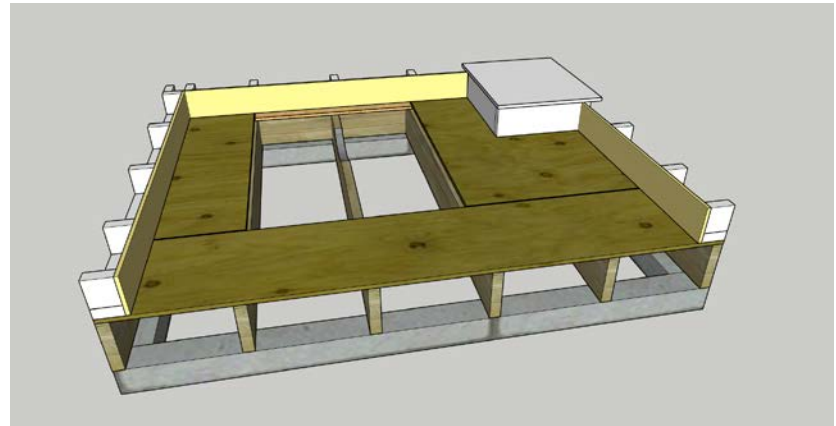
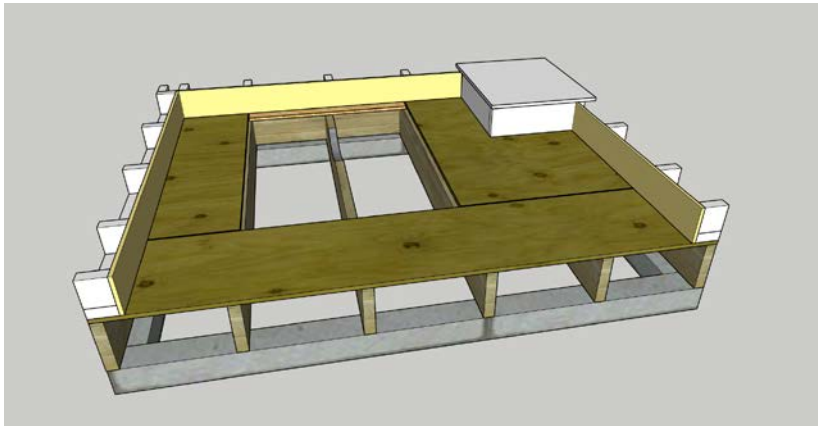
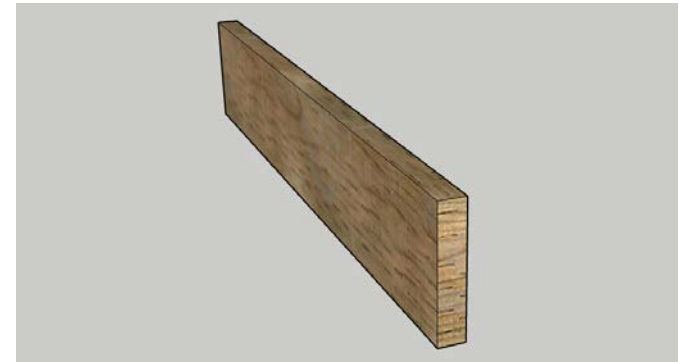
BCS EPOXY
KILLS FUNGI
HARDENS WOOD
ADDS STRENGTH TO WOOD

BEST



SISTER THE WEAK JOIST

- Line up 2x8 alongside the weakened joist
- They must be flush on the top of the joists
- Heavily screw the two together from both sides





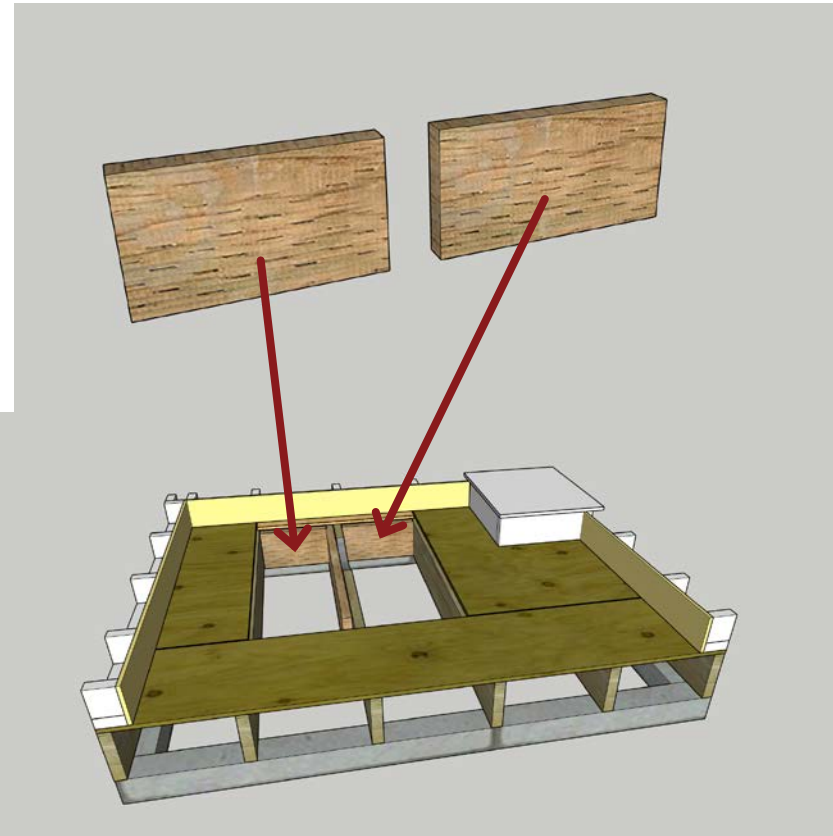
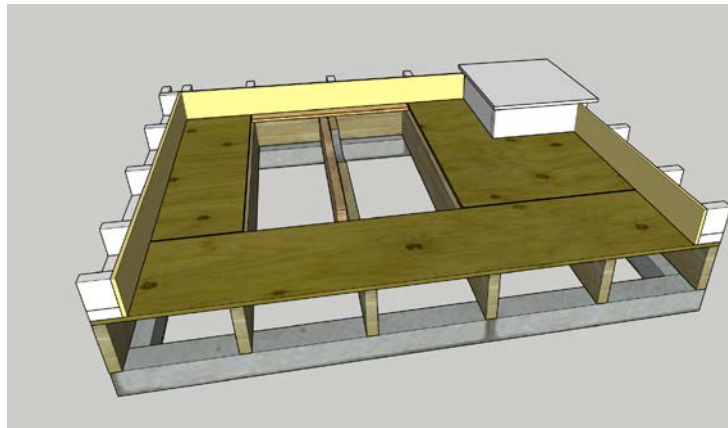
CHALLENGE 2

RESTRUCTURING

- There is a hole in the floor and the new piece of sub-floor must be supported on all four sides
- To do this we need blocking that supports the cut edge of the sub-floor (the part sticking out from under the wall) and at the same time the unsupported edge of the new sub-floor piece
- The two blocking pieces are different sizes because the “Sister” takes up some space. These must be placed flush with the top of the joists
- Add blocking to support cut edge
 - » Secure blocking through remaining OSB under wall to position
 - » Blocking must be flush with the top of the joists and the line between the cut piece and the new piece falls in the middle of the 2x8 blocking, like a joist
 - » Toenailing blocking with screws to joists.
- Replace “rotten” sub-floor with new Plywood
 - » Use specific “flooring screws” that will pull the panel tightly to the joist – (never drywall screws)
 - » Use the rotten removed floor piece as a template to draw toilet drain hole in new plywood
 - » Use jig saw to cut out the toilet drain

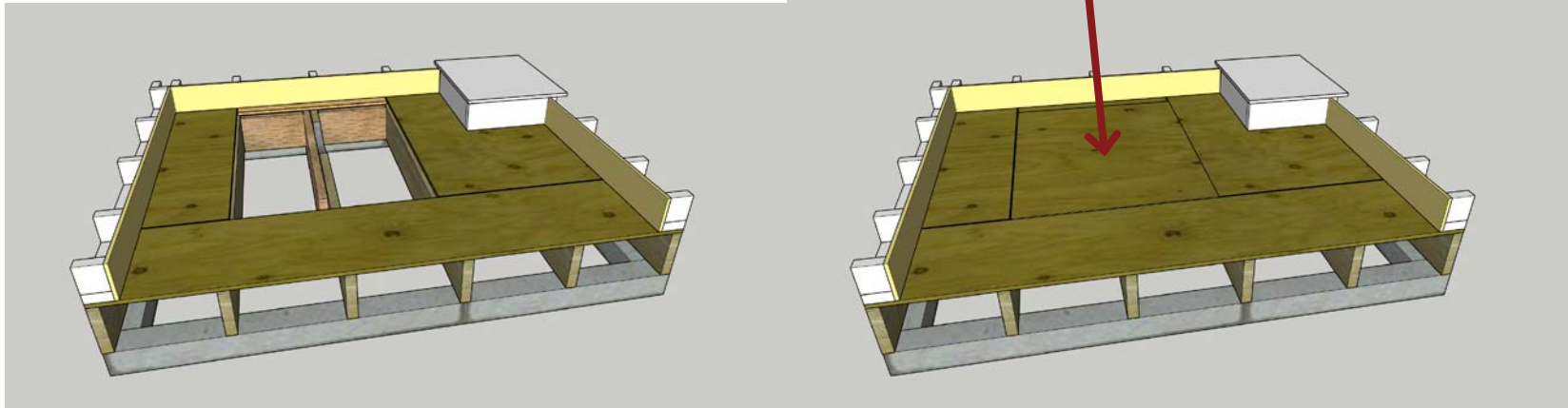


ADD BLOCKING TO SUPPORT CUT EDGE





REPLACE ROTTEN FLOOR WITH PLYWOOD





CHALLENGE 3

VINYL FLOORING W/ WALL UPTURN

- Sheet Vinyl flooring is one of the most waterproof coverings we can have in a bathroom because there are no cracks between boards or tiles
- Here we are going to practice a very unusual step of turning the edges of the vinyl up the wall 3" to make a waterproof basin. (Tile floors should run up the wall a few inches for the same reason.)

- You need to transfer measurements from the floor to the vinyl to cut around obstructions like wall corners or a counter base
- We need to learn to crease and fold the vinyl, tab and seal the corners. All of this will be hidden by the floorboard trim in the last challenge
- Use jig saw to cut out the toilet drain

WHY ALL THE TROUBLE?

All of this work is an extra step toward preventing spilt water from turning into mold. Water that gets under flooring will never dry out.

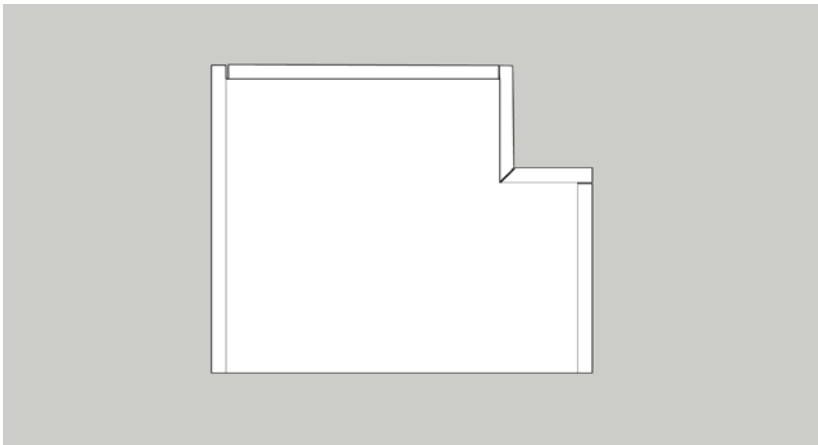


Vinyl flooring w/wall upturn

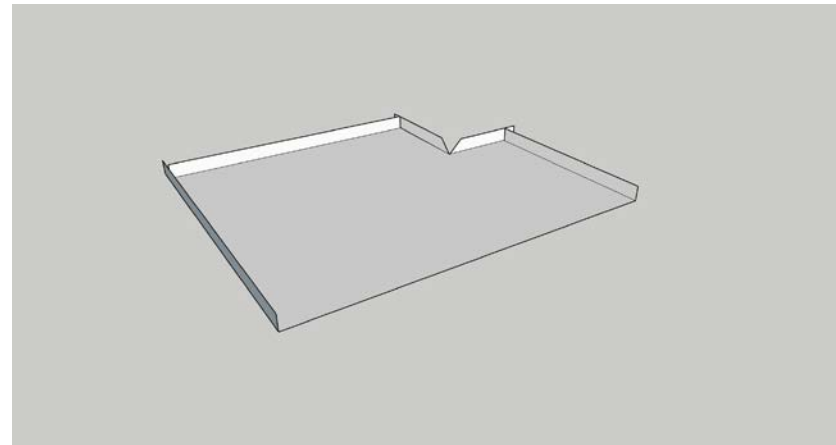
- Layout sheet vinyl and draw pattern
 - » Transferring measurements from bathroom
 - ◇ Notching out for the counter base
 - ◇ Leaving 3" upturn tabs
- Cut sheet vinyl with a utility knife
- Install sheet vinyl (with staple guns to avoid glue in the hotel)
 - » Precaulk corners (just a dab in each corner before the vinyl is placed)
 - ◇ This will seal the cracks in the corner folds.
 - » Properly bending and folding tabs
 - » Cut and install counter outer corner patch
 - » Cut out the plumbing hole



LAYOUT SHEET VINYL AND DRAW PATTERN

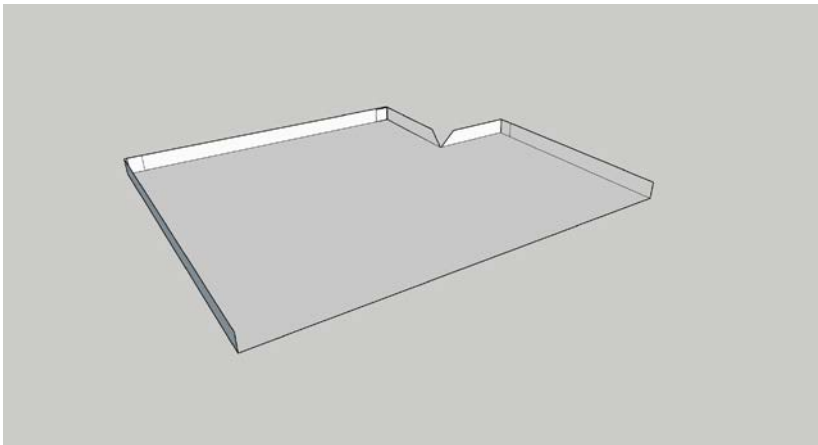


CUT SHEET VINYL & FOLD UP THE WALL TABS

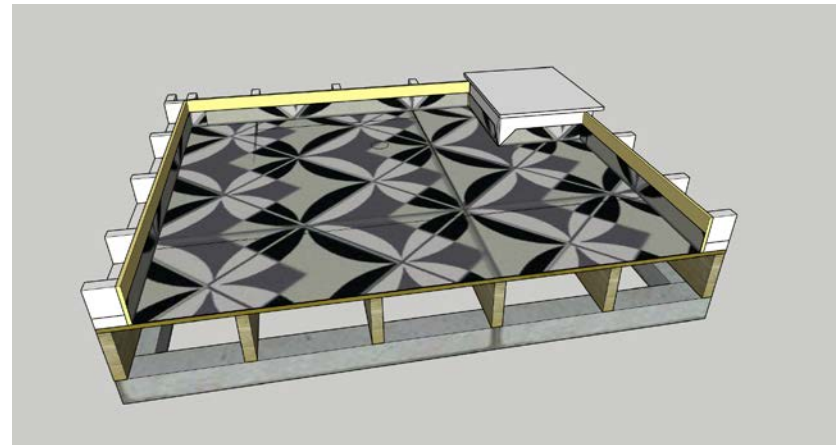




FOLD IN THE CORNER TABS

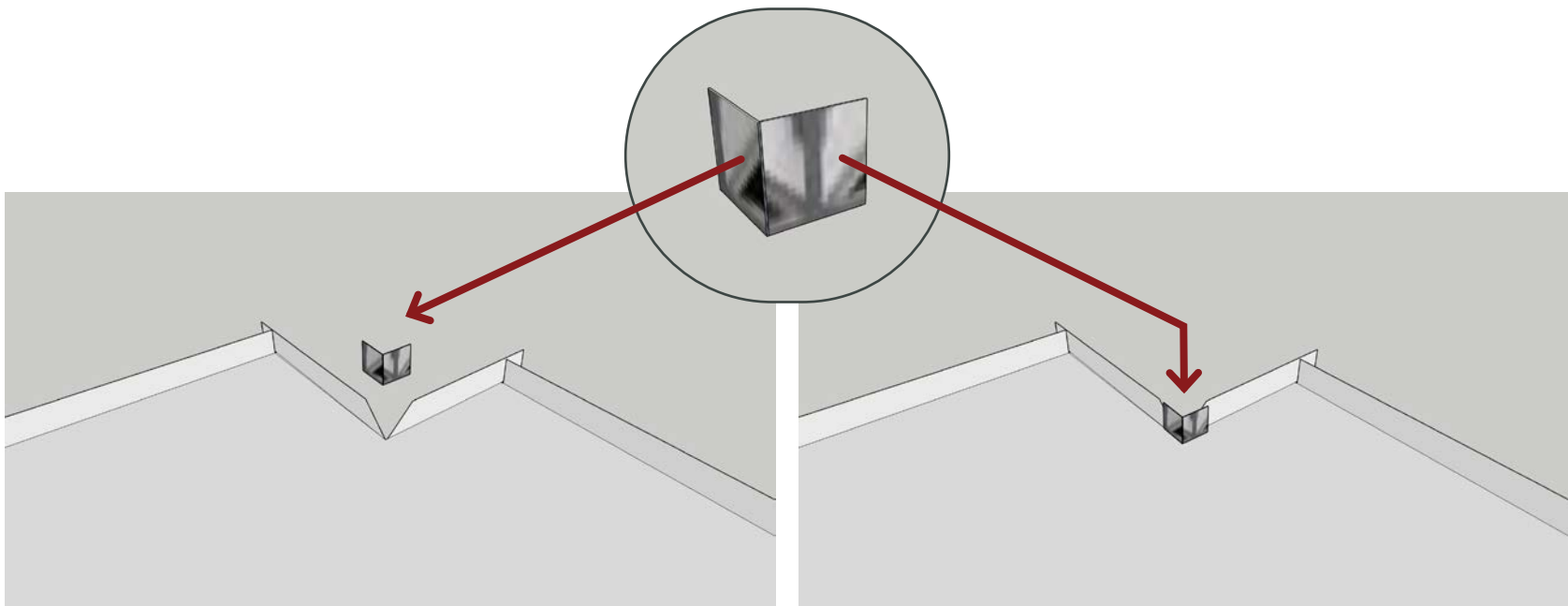


INSTALL SHEET VINYL (WITH STAPLE GUNS TO AVOID GLUE)



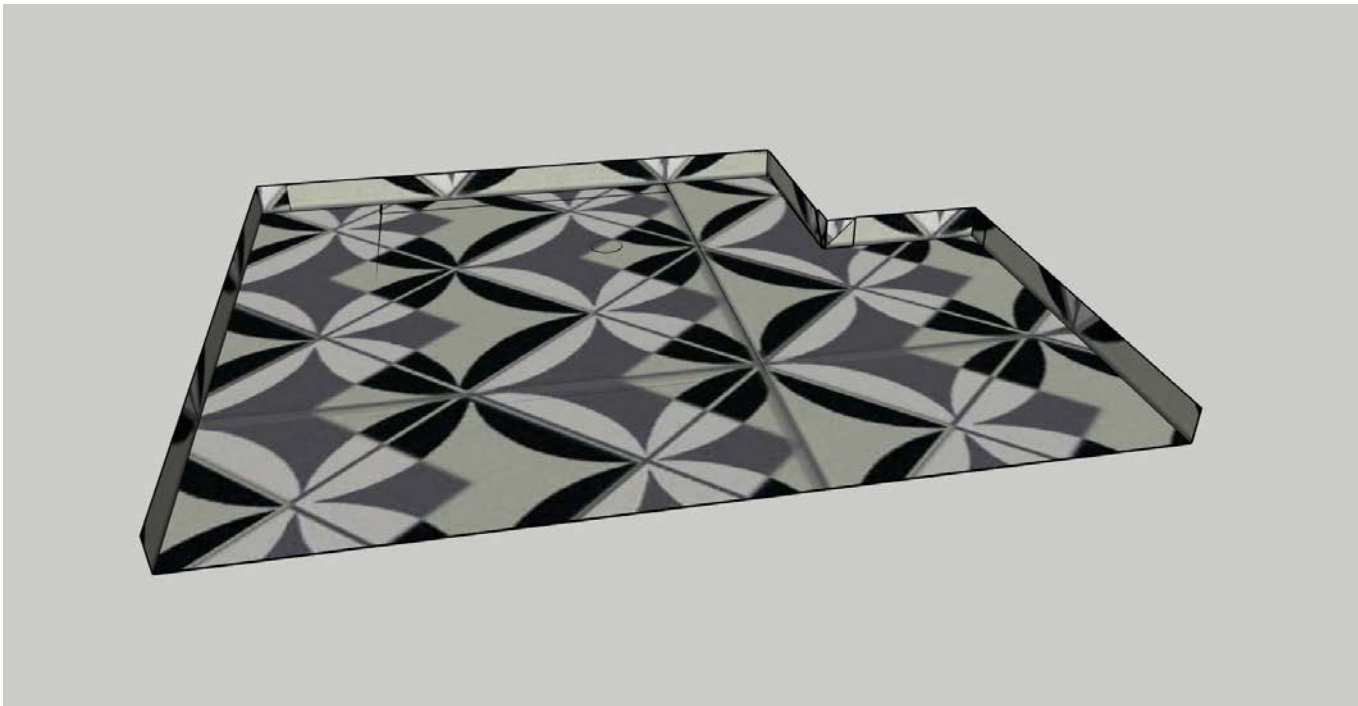


PATCH WITH THE OUTSIDE VINYL CORNER PATCH





SEALED VINYL FLOOR





CHALLENGE 4

MOLDING FINISHING

- Wall baseboard molding protects the vinyl from shoes.
- In our special installation, it also hides the upturned vinyl.
- The corner joints for trim could all be cut at 45 deg, but because of shrinkage, all inside corners end up with a crack. Outside 45 deg corners can be nailed together to keep them looking good.
- The inside corners are best made with one piece going square into the corner and then cover over that with the trim pattern removed from the second piece with a coping saw. This camouflages shrinkage cracks.

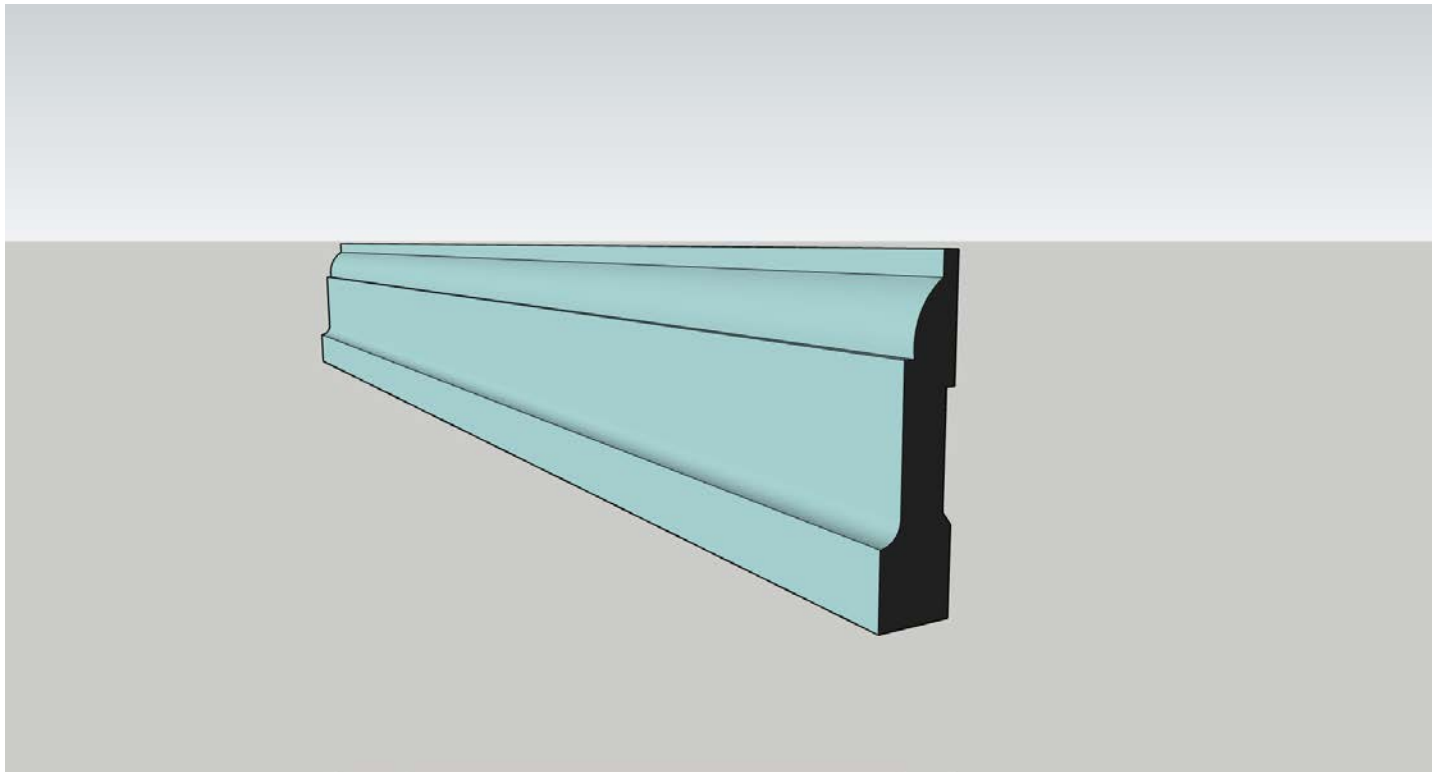


Molding finishing

- Install back section square
- Cope left side to back section
 - » Cut square end to length
- Cope right side (cabinet base) to square back section
 - » Miter outer corner a little long (adjust later)
- Install front section of cabinet base square on the right
 - » Miter outer corner, adjusting the two pieces to a perfect 45deg fit.
- Cope right side wall to back cabinet foot
 - » Cut square end to length



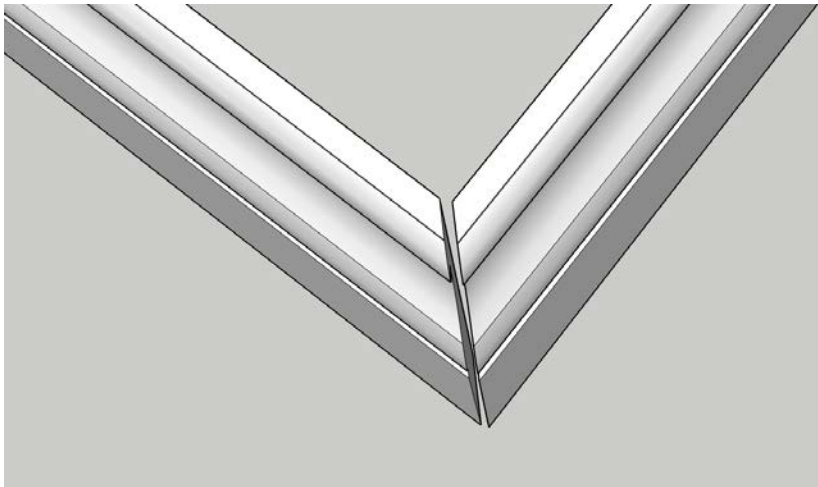
PREPARE BASEBOARD MOLDING





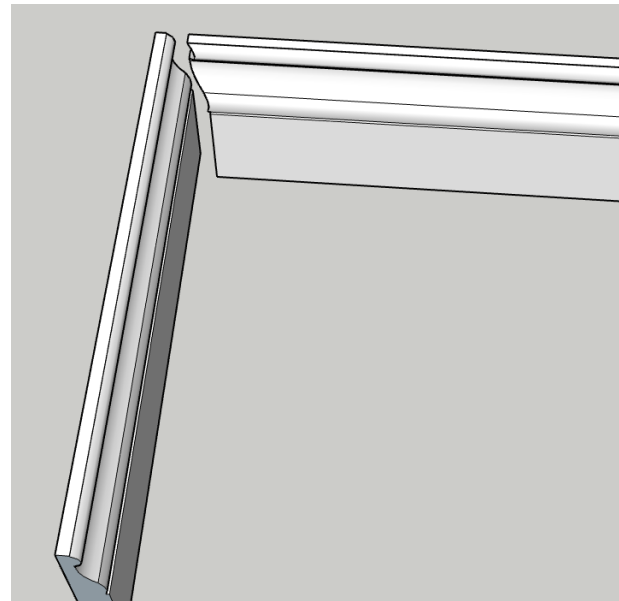
THE MITER CUT

- Works for outside corners, but always opens in inside corners



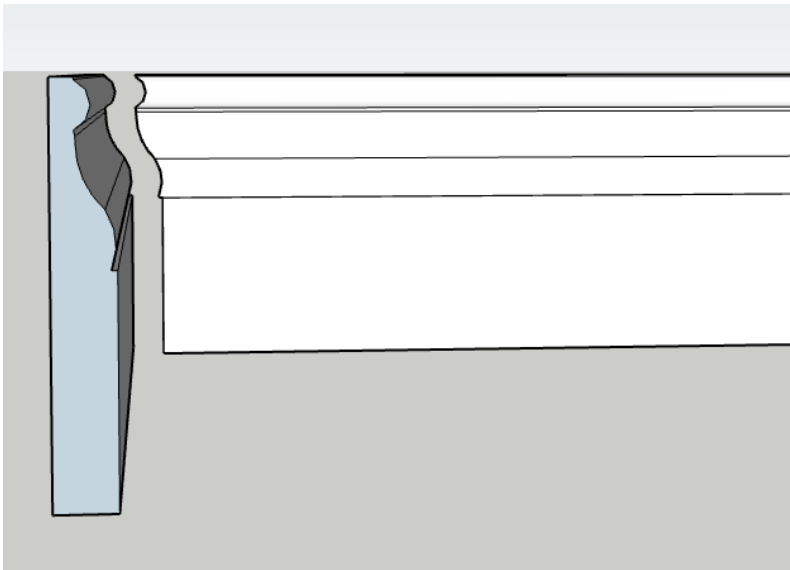
COPING AN INSIDE CORNER

- The first piece goes square into the corner
- The second is shaped to fit over the first
- This hides and shadows the joint





THE SHAPED PIECE SOCKETS INTO THE BACK PIECE

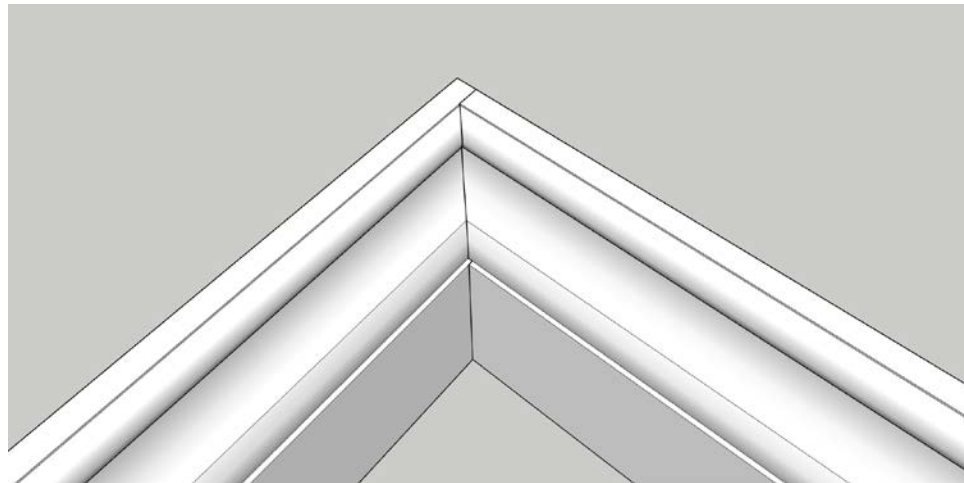
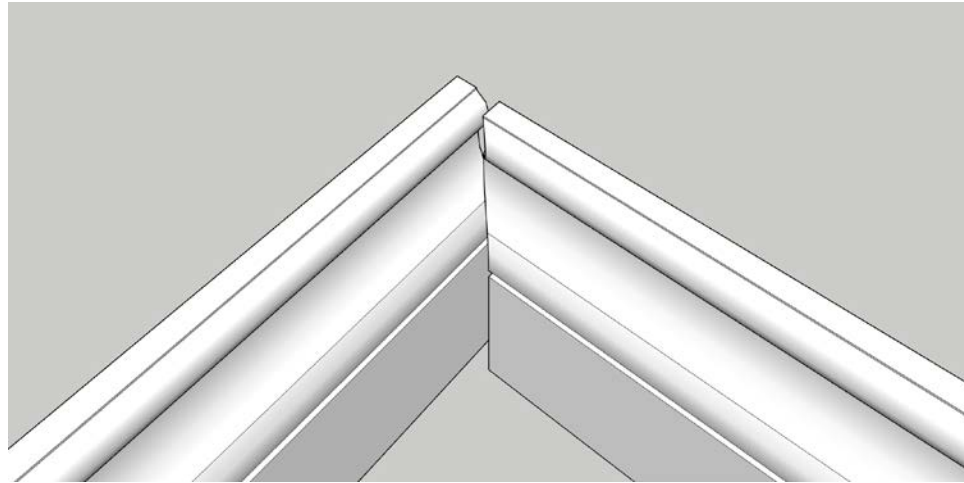


THE COPING SAW



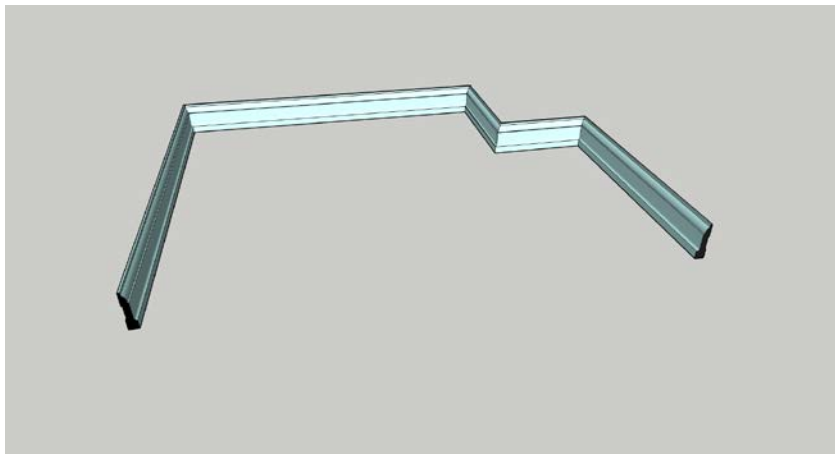


**COPPING HIDES
ANY CRACK**

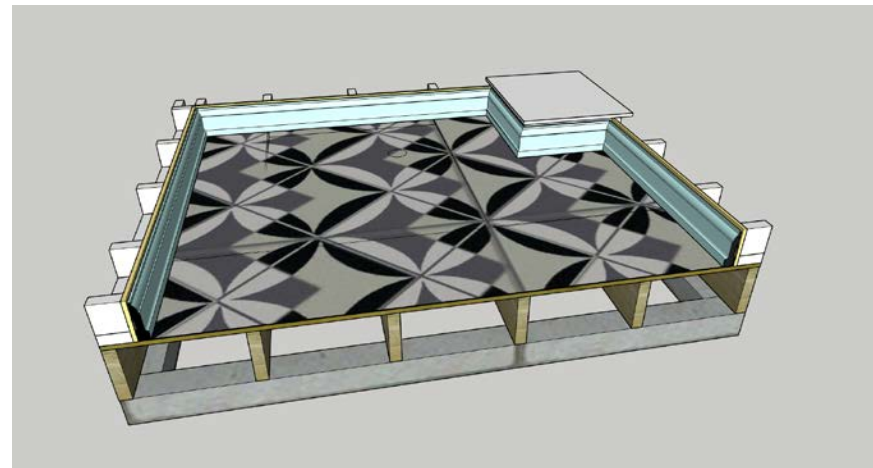




TEST ASSEMBLY



NAIL MOLDING TO WALL (FINISHING NAILS AND PUNCH)





SEALING TRIM TO THE WALL

- To make it waterproof and hide the crack between the trim and the drywall caused by upturn in the vinyl, the whole bathroom should be finished off with a clean caulking all around the top of the trim board.
- To avoid a mess in the hotel, we will do that symbolically for just a couple of inches.

BATHROOM ROT RESTORATION SUMMARY

- Demolish carefully anything that has to go.
- Clean and sanitize any mold or rot left.
- Strengthen any weak structure.
- Install water resistant flooring.
- Install baseboard trim to protect wall to floor junction and vinyl

Enjoy a clean healthy bathroom.



ACKNOWLEDGMENT

As we conclude the **Builders Challenge: Focus on Youth** program for 2025, we extend our heartfelt gratitude to everyone who made this initiative a success.

A special thank you to **Dennis Franklin Cromarty High School (DFC), Matawa Education, Hammarskjold High School, and the Canada Mortgage and Housing Corporation (CMHC) -**

Indigenous Skills Training Program for their invaluable support, guidance, and commitment to empowering youth through hands-on learning and skill development.



We also recognize the dedication of our mentors, educators, industry professionals, participants and all First Nation Communities whose enthusiasm and hard work brought this challenge to life. Your contributions have not only helped build structures but have also laid the foundation for future careers and opportunities for young individuals in the skilled trades.

Thank you for being part of this journey—we look forward to continuing to inspire and support our First Nations Youth. Our next generation of builders.



**FIRST NATIONS
HOUSING CONFERENCE**
EXPLORING CHALLENGES,
EMPOWERING SUSTAINABILITY

**THANK YOU FOR YOUR
PARTICIPATION**



Government
of Canada

Gouvernement
du Canada



**CEDC
TOURISM**
DEVELOPMENT FUND

PRESENTED BY



FIRST
NATIONS
HOUSING
COMMUNITY