

Frost on the closet ceiling.

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Martin from Moncton, New Brunswick has frost forming on the ceiling of a closet in an unheated bedroom. First, you need to realise that heated or not heated, that bedroom has just as much moisture in it as the rest of the house, perhaps more because moisture tends to migrate from warm to cold areas. That is setting you up for a problem. Next, the closet has less air movement than all the rest of the room, so as moisture migrates into the closet, none of it comes back out. Opening the closet door and allowing for free air circulation between the closet and the room could help to both warm up the closet, at least to the cold bedroom temperature rather than freezing, and could minimise the moisture collection. In addition to all these things, the top of an outside wall often has its own problem. As you can see on the left side of the graphic, there are two boards on the top of the wall that go from the inside drywall right to the soffit area outdoors. There is insulation in the hollow part of the wall, but not here. And there is attic ventilation passing right over these boards inside the soffit area. That, together with the high moisture levels indoors, can be causing your frost. The frost could even be across the ceiling if the attic ventilation is blowing under the insulation in the attic and flowing across the drywall. The right side of the graphic shows you two simple fixes. If you can get into the soffit area, add a band of foam insulation board over that wall header. This will deflect the wind over the fibreglass and into the attic, and insulate these two boards at the top of the wall. An inch of foam insulation can easily raise the temperature inside by 10 degrees C. If you can't get at it from the outside, then you can improve things a bit by adding decorative molding to this area, but use the molding that is made out of polyurethane foam. It is good insulation as well as being decorative. All of this should stop the frost but may not be enough to stop condensation. If you still get condensation in this area, then you must warm the room up a few degrees warmer and make sure that air can circulate freely over the problem area.

Keywords:

Condensation, Closet, Bedroom, Ceiling, Insulation, Frost