

[Home](#) > [Ideas](#) | [More in Insulation](#)

'This Old House' Inspired This Middle School Teacher's Lesson Plan

Jourdan Marino, a science teacher in Massachusetts, is using our home insulation tutorials to teach his students about heat transfer

By *Laura Testino*



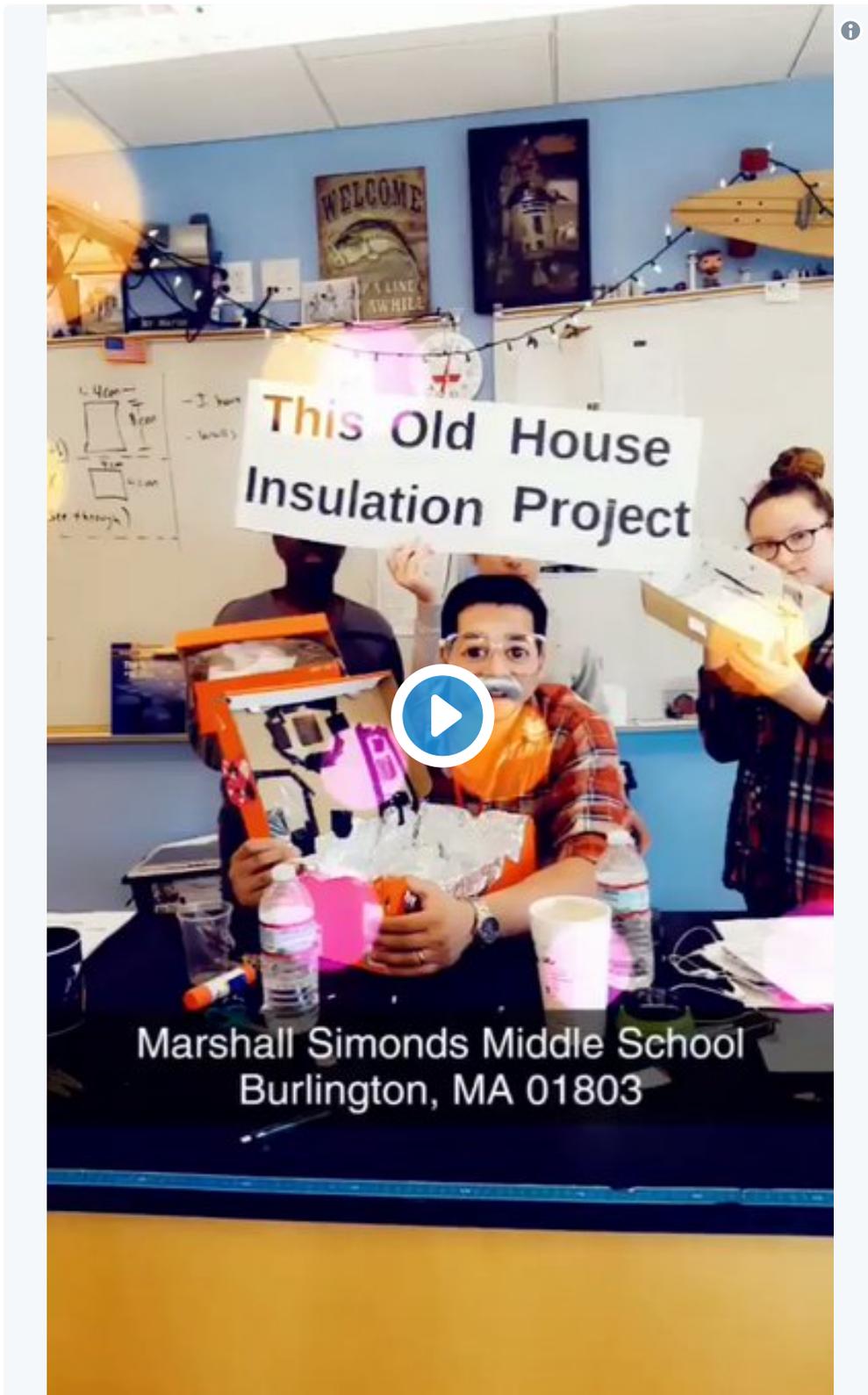
COURTESY OF JOURDAN MARINO

January 24, 2018

Last week we posted about a Snapchat filter that looked an awful lot like our beloved general contractor

SHARES							
	()	()	()	()	()	()	()

House Insulation Project." Marino tweeted (with [a video of his class and himself](#) sporting the [Tom Silva Snapchat filter](#)) when his students began the project.



Mr. Marino

@MrMarinoScience



SHARES



@thisold

()

()

()

()

()

()

()

Any of you guys come visit & help @BurlMASchools In science
Im teaching students about heat transfer so we're building a
"This Old house" to insulate and test outside! Swing by for a visit
We love you guys!!!

10:45 AM - Jan 18, 2018

♡ 1 👤 See Mr. Marino's other Tweets

Shown above: Mr. Marino invites Tom Silva to his classroom with the unofficial Tom Silva Snapchat filter turned on.

Students were asked to insulate a shoebox “house” to retain as much heat as possible during a chilly 40 minutes outside in Burlington, Massachusetts. Marino has been teaching science for eight years, and originally did the project when he was a sixth grader at the same middle school. “I can remember how hard my father and I worked on it at his shop,” Marino told us in an email. He brought the project back when he started teaching and made it a part of his curriculum.

 Shoebox houses are lined up for testing outside in the courtyard.

COURTESY OF JOURDAN MARINO

Shown: Shoebox houses are lined up for testing outside in the courtyard.

As the “This Old House Insulation Project” grew in popularity, Marino added various stipulations to challenge his students and encourage their creativity. The shoebox must be a true “house,” with at least three windows and a functioning door and walls no thicker than 5cm. Students can’t just create a “nest” of materials, Marino said, and can’t add any batteries or hand warmers to produce heat. The roof has to be removable so that he can add in a thermometer during the final test.

 an open shoebox is full of aluminum foil

COURTESY OF JOURDAN MARINO

 shoebox is open with aluminum foil inside

COURTESY OF JOURDAN MARINO

 an open shoebox with styrofoam and scissors inside

SHARES



()



()



()



()



()



()



()

 a shoebox has another cardboard structure inside

COURTESY OF JOURDAN MARINO

Shown: Students begin construction on their insulated shoeboxes.

Students insulated their shoeboxes in class with the [This Old House theme song playing in the background](#), and once construction was completed in the next class period, the testing began. Marino set the classroom temperature to 75 degrees Fahrenheit as the base starting temperature for everyone, placed a thermometer in each house, and then had the students sit the houses outside for 40 minutes. When the time was up, he read the final temperature to see which houses had the best insulation.

 shoeboxes are sitting outside in a courtyard

COURTESY OF JOURDAN MARINO

 shoeboxes sit outside in a courtyard

COURTESY OF JOURDAN MARINO

Shown: Shoebox "houses" sit outside for 40 minutes to see how much heat they each retain.

The students who made the best houses in each class got to take their projects home for the weekend to make tweaks for a final round held this week. The other students got busy, according to Mr. Marino, "converting their 'This Old House' into a radiant cooker, where we will use heat lamps to try to cook marshmallows and hotdogs!"

We wish all of the students the best of luck in the final round of the 'This Old House' Insulation Project.

OTHER VIDEOS

[200 Years of Building Sheathing Technology](#)

SHARES



()



()



()



()



()



()



()

0 Comments

This Old House

Laura ▾

Recommend 12

Share

Sort by Best ▾



Start the discussion...

Be the first to comment.

Subscribe Privacy

MORE IN INSULATION AND INSULATION

 Tommy Silva is wearing a hard hat and glasses while looking at the camera

 room with roll of insulation batting and tools

[There's a Snapchat Filter That Makes You Look Just Like Tom Silva](#)

[How to Insulate a Wall](#)

 family gathered in kitchen of renovated farmhouse

 illustration of freezing house wrapped in a scarf

SHARES



()

()

()

()

()

()

()

 Richard Trethewey holds a toilet

 Richard Trethewey holds a toilet

[Heating a Cold Room](#)

[Heating Wood Floors](#)

SPONSORED STORIES

SHARES



()



()



()



()



()



()



()