

CONSTRUCTION SECTOR - IRON WORKER- MARSHMALLOW TOWERS

CHALLENGE

A Women Pioneer in Construction!

In 2009 the Aqua skyscraper was built in Chicago, becoming the tallest building in the world designed by a woman at 859 ft tall. Here's your chance to follow in architect Jeanne Gang's footsteps and design your own tower, using only toothpicks and marshmallows! Your objective is to build the tallest free-standing tower that you can using only the materials listed below.

What is an Iron Worker?

An Iron Worker is a trades person that creates the structures of many types of buildings and bridges. They also need to be skilled in many different areas – welding, concrete work, rigging, and many others.



Related Skilled Trades: Ironworker, Brick and Stone Mason, General Carpenter

Relevant Trade Skills: Planning and design, creativity and dexterity

[Click here for a full list of all recognized Ontario skilled trades](#)

CHALLENGE MATERIALS

- 50 toothpicks
- 30 small marshmallows

CHALLENGE RULES

1. The tower **MUST** be free-standing. This means it cannot be attached to or leaning on anything (it cannot be taped to the ground or the ceiling, it cannot be leaning on a table, etc.)
2. Only use the materials required above
3. Once complete, measure how tall your tower is in centimetres using a measuring tape.
4. Think about how you could improve your tower to gain additional height. Rebuild the tower as many times as necessary to make it as tall as you can.
5. You must create a to-scale blueprint plan for your design and include it in your submission
6. **You will need to highlight what you as a girl can do and why girls ROCK! See full submission requirements below.**



JUDGING/SCORING

There are **AMAZING** prizes to be won and **EACH CHALLENGE** has first, second, and third place prizes!

1st place: \$250 e-gift card

2nd place: \$150 e-gift card

3rd place: \$100 e-gift card

Submissions will be marked in the following:

Structure Height	Points
0 cm – 10 cm	5 points
11 cm – 20 cm	10 points
21 cm – 30 cm	15 points
31 cm +	20 points
Total Marks (Total out of 20)	

****REMEMBER, you will need to highlight what you as a girl can do and why girls ROCK!****

Design Plans	Points
No Plan was provided	5 points
Challenger had plans with measurements.	10 points
Plans were to scale with measurements outlined. Provided Length	15 points
Plans were to scale with measurements outlined. Detailed. Provided Length. Straight edge was used. Lines are neat and clean.	20 points
Total Marks (Total out of 20)	

Challenger Total Marks: / 40 points

Submission

Submissions could be videos and/or pictures of your project. **You will need to highlight what you as a girl can do and why girls rock!** This can be done in either voice recordings within a video, or through a written document that is photographed with your project.

Submissions are to be posted on Twitter between October 5th – 9th. Tag **@skillsontario** and use the hashtag **#SkillsIDG2020**. If you do not have Twitter, or are uncomfortable posting, please email your submission to info@skillsontario.com.

Skills Ontario will directly message winners on Twitter to let them know they won. If you choose to email your submission, we will reach you through the address you contacted us with. Winners will be publicly announced on **October 16th** on Twitter.