



Teaching with Tinkercad Webinar Series

Pavilion for Healing: Design a community pavilion after disaster

What you'll do today

In this session, you'll design a simple, classroom-ready pavilion that helps a community recover after a disaster.

By the end of the core activity, you'll have:

- A complete pavilion model built from a starter kit
- At least one design decision that supports healing, dignity, or access
- A structure you can confidently use with students right away

Time for the core activity: ~20-25 minutes

If you do nothing else today, completing the first stopping point is a classroom win!

How to use this handout

- You can follow along live or just watch — both are great options, and this will be recorded and shared.
- It's okay to stop early. You'll still leave with a complete classroom activity.
- Success isn't about matching the presenter's design — it's about making a clear, thoughtful design choice that fits your classroom goals.
- You can share your finished work with the Tinkercad education community by submitting it to the [Tinkercad Challenge](#) and including **#makealong** in the Tinkercad design description. You can also tag us on social **@tinkercad**

What you need

Required

A free [Tinkercad](#) account
[Pavilion for Healing starter file \(Choose Imperial or Metric\)](#)
Computer and internet

Optional

Mouse
Headphones
Another screen to watch the demonstration
Extra time for creative exploration
No printing required

Today's make-along: Step-by-step

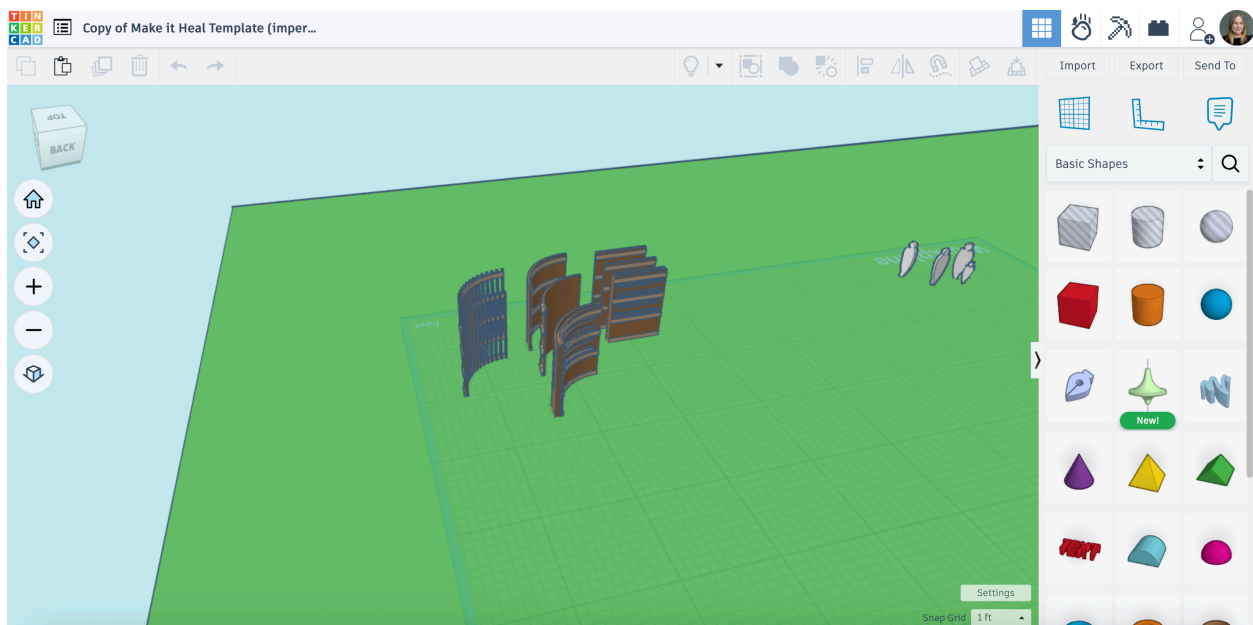
Step 1 — Open the Starter Pavilion

Open the Pavilion for Healing starter file: [Imperial | Metric](#)

Take a moment to orbit the model and notice the major parts.

You should see:

Eight modular panels on a green surface with four human figures for scale.



Step 2 — Define the Community Purpose

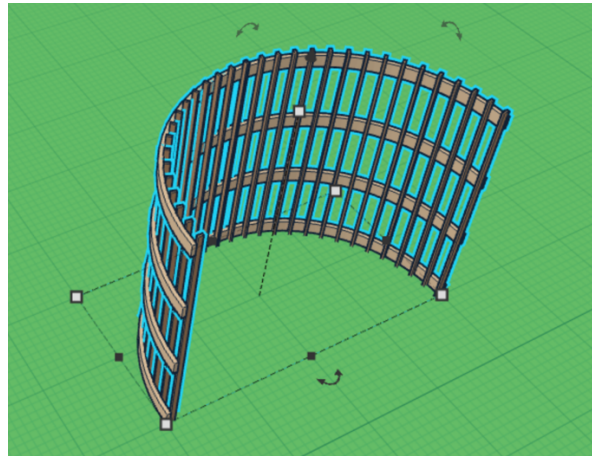
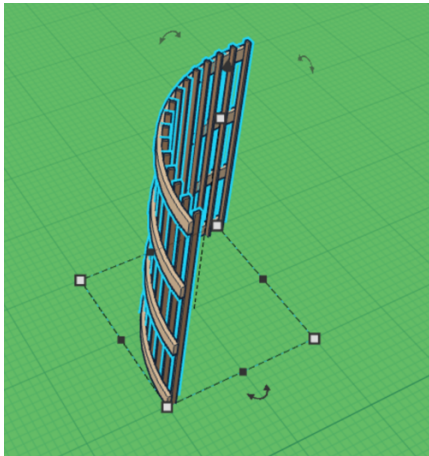
Choose one primary use for your pavilion; here are some ideas:

- Community gathering space
- Pop-up clinic
- Distribution or support hub
- Memorial or reflection space

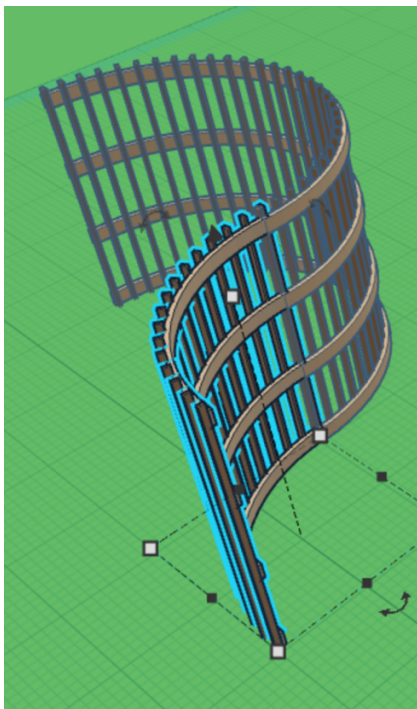
Step 3 — Start creating your pavilion

Use the panels available in the starter model to better support your chosen purpose.

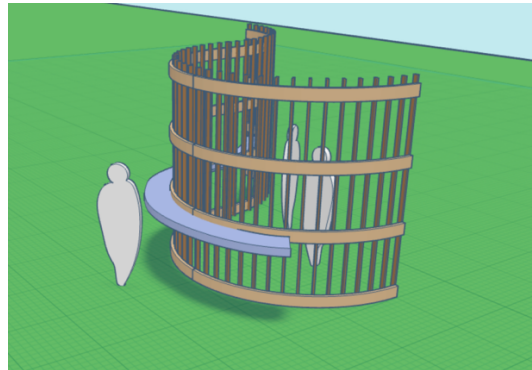
Each panel is designed to fit on a 20x20 space in the grid, making the assembly much easier. Make duplicates of the panels and have fun building! Make sure the Snap Grid interval is set to a convenient value and Scale under Settings is 1:100 (in feet or meters).



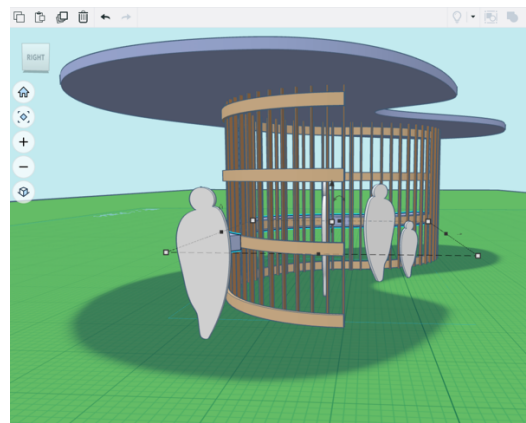
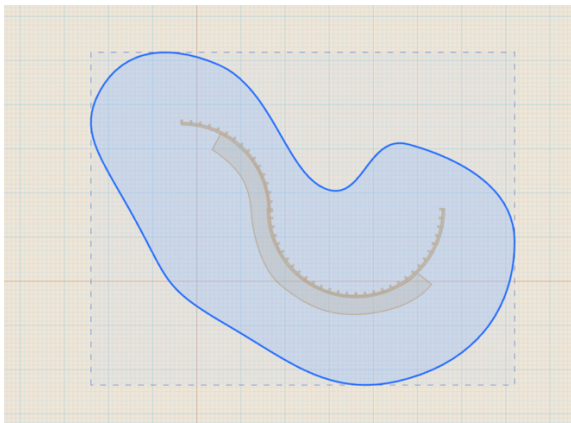
Some panels have the structure on different sides. In order to make some curves, you might need to rotate the panels and adjust the location by using the arrow keys.



Let's add a bench or a table along one of the curved walls. We will use Sketch Extrude for this. We will use Open Path, so the sides of the piece of furniture are parallel.



Adding a roof is another great excuse for using Sketch Extrude!



Stop here—win!

If you stop here, you have:

- A complete, buildable pavilion design
- A clear story about who it's for and why it matters

This is a successful outcome.

If you want to go above and beyond, check this out!

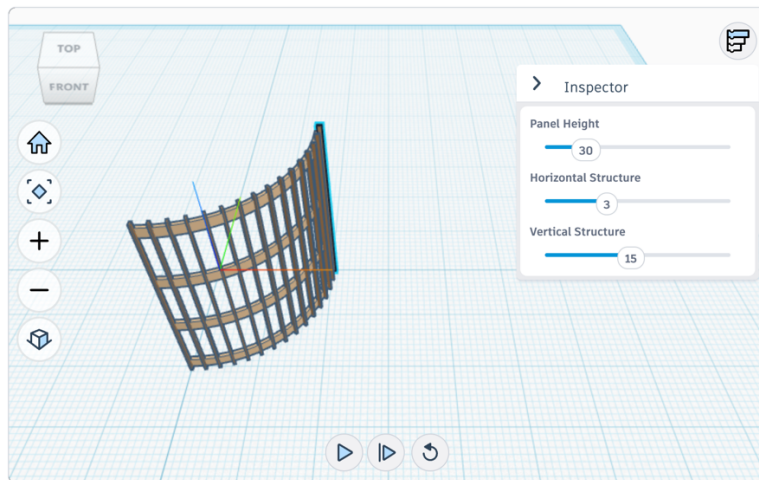
The panels you are using have been designed in Codeblocks, which makes them fully customizable by changing values on some variables.

In our example, the concave curved panel has a horizontal structure where you might be able to attach a bench or a table. But with only 4 structural elements, the lower one would be too high for a bench. It was designed to align with the height of a counter.

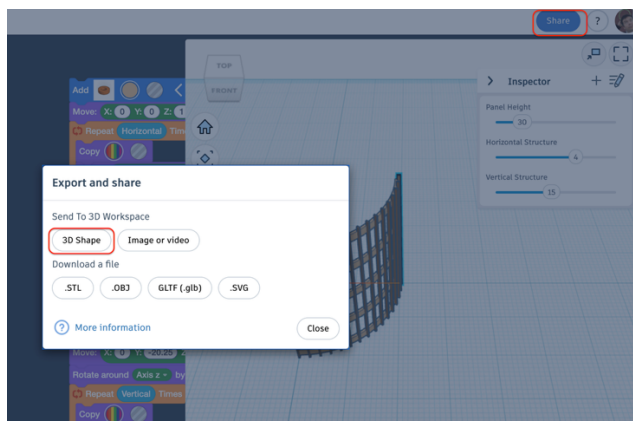
If you open the [Codeblocks design](#), you will see options under Controls.

Curved Wall concave

Admin actions:



If you change Horizontal structure to 4 and play the Codeblocks, you will see 5 horizontal structural elements (4 spaces), so one of them will be at a better height for a bench. You can then use Share and then see the new shape under Your Creations on the 3D workspace Shape Panel.

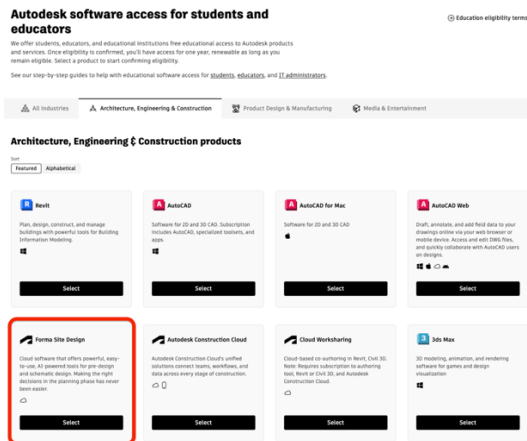


Optional Extension – Send to Forma

Explore how modular thinking connects to real-world architecture and resilience design.

Send to Forma allows you to connect your Tinkercad design to Forma Site Design. This is a great solution for doing some AI driven analysis of the impact that your building and the environment have on each other. Check out hours of sunlight, shadows, impact of wind, and other conditions that an urban or architectural design professional would take into consideration as they look to make informed design decisions.

Before getting started with Forma, you will need to get a [free educational license](#) and assign it to your students. They must all be over 13 years old (or over 14 if you are working in China or South Korea).



Once they all have access to Forma, you will need to set up a Hub, a Project and a Site (use the map or search with a zip code for a specific location). You need to do this before using Send to Forma from Tinkercad in order to get the workflow functional. Once you do all the steps to make a site in Forma, you will see a list of Hubs and Projects (you might have just one by this time). This is where Forma will take the Tinkercad design.

Since Forma will have a terrain, please hide the terrain in Tinkercad, and select the elements you want to send to Forma. If you make no selection, even the hidden elements will be sent.

Pavilion for Healing – Webinar Make-along Handout



Send Tinkercad model to Forma

Bring your Tinkercad model into real-world context and use it to shape the spaces around it.

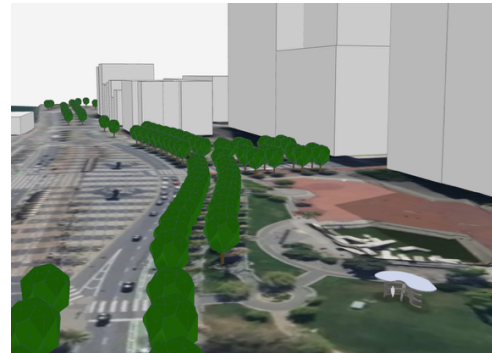
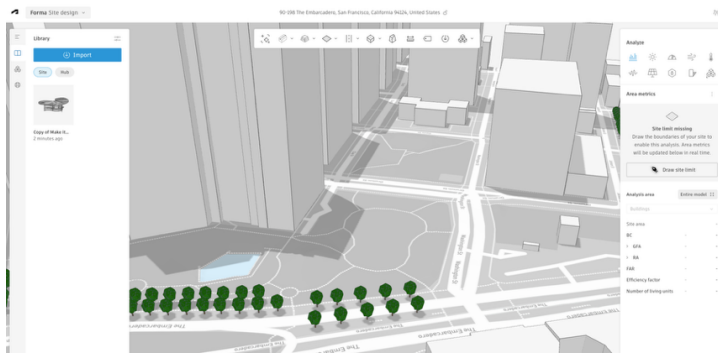
Your model will be sent to a site. To get started, select an existing hub in your Forma account, choose a project, and select the site where you want to add the model.

Hub
First projects

Project
Select Project

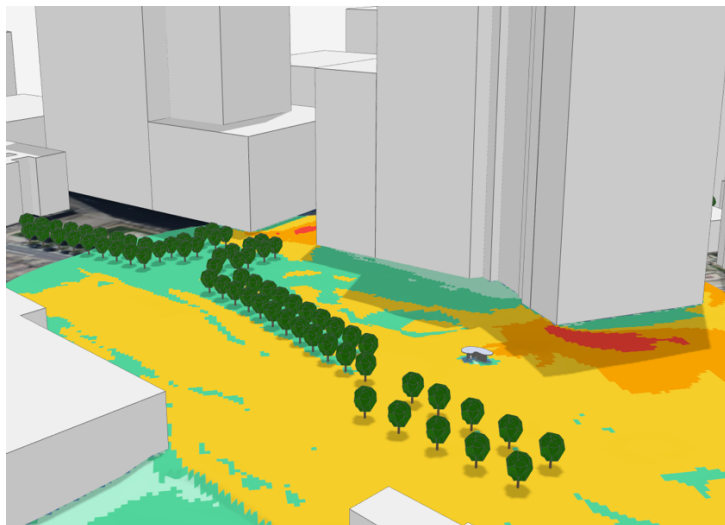
- 2024 - 90-198 The Embarcadero, San Francisco
- Watertown
- 2024 - 649 Mason Street, San Francisco

Once your design is in Forma Site Design, you can place it in the desired location, and you will be ready for all the fun!



For more information on how to set up analysis in Forma, please refer to [this blog post](#).

For example, this is a wind analysis of the area. What can you learn from this? The zones in orange and red have more impact on comfort, which makes sense since they are huge buildings that change the wind conditions. Maybe we want to add some trees around the pavilion to mitigate this.



RAPID
A real-time prediction of wind conditions based on thousands of simulations. [Learn more](#)

Comfort Direction

5% 34% 52% 8% 2%

Weather Data 0.04 0.27 5.7% 8

DETAILED
An in-depth assessment of wind speed and direction, and pedestrian wind comfort. [Learn more](#)

Analysis (-15-60 mins)

No analyses
[View history](#)

Conclusion: Bringing it back to your classroom

You now have everything you need to bring this challenge into your classroom right away. Whether you completed the core activity or explored Forma, you built more than a structure — you created an empathy-driven, real-world learning experience.

Remember:

- A clear purpose matters more than complexity.
- One intentional design choice can spark powerful classroom discussion.
- Modular design makes iteration approachable for all learners.

Students don't need perfect models — they need meaningful problems to solve. This pavilion challenge gives them a way to think about community, access, and healing while practicing spatial reasoning, prototyping, and storytelling.

If you continue into Forma, you're extending that learning into environmental analysis and professional workflows, helping students see how their designs interact with the world around them.

However far you take it, this is a complete and flexible classroom activity. Adapt it to your learners, scale it to your time frame, and let thoughtful design lead the way!