



D for Duomo

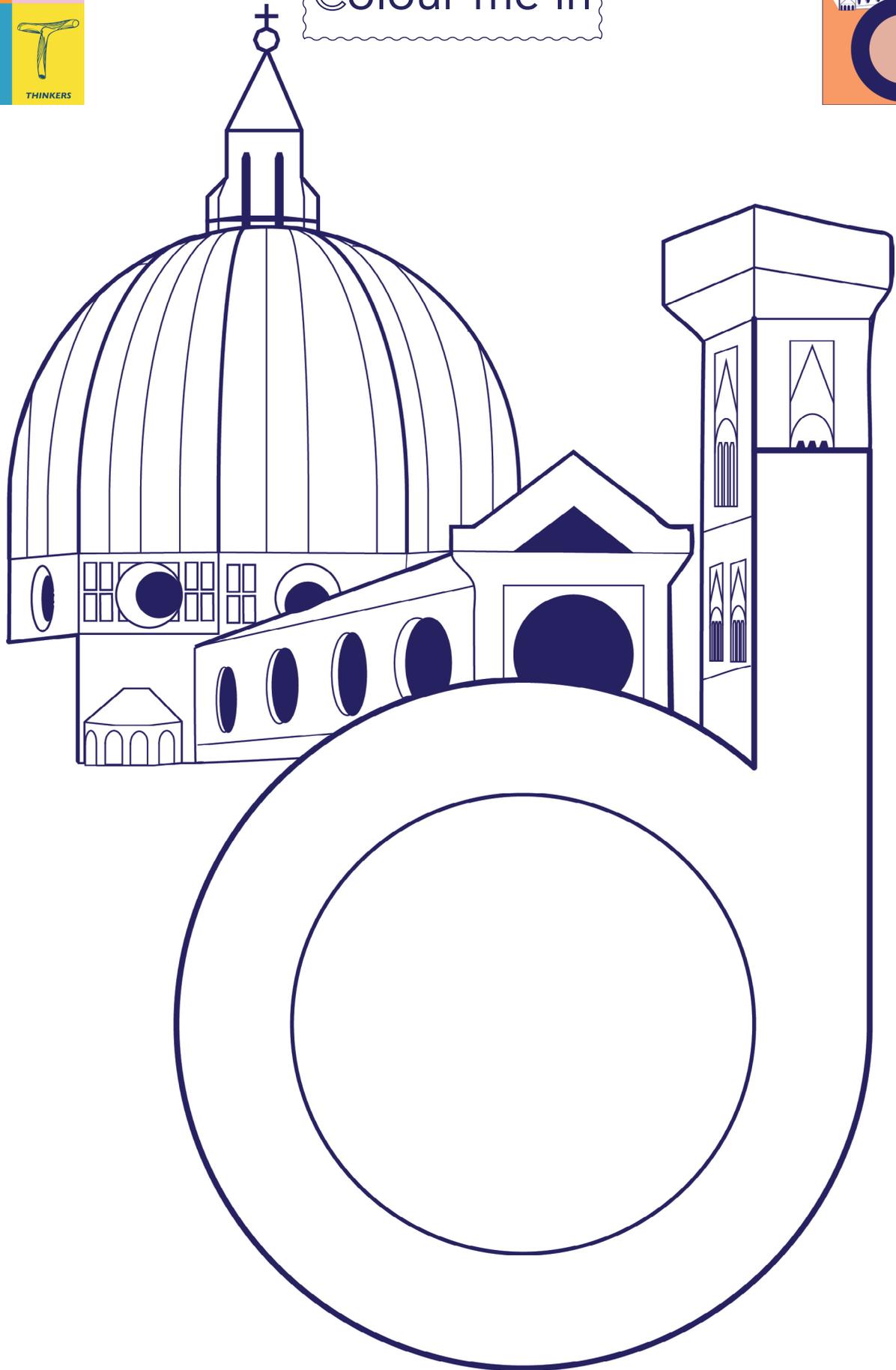
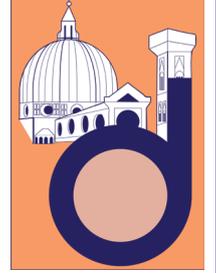


Fun Facts

1. The Duomo in Florence took **142 years to build** and the hole was left exposed for years while figuring out how to build it.
2. At 46 meters wide, the dome is **the largest masonry** dome in the world.
3. The dome used over **4 million bricks** to build and it **weighs over 25,000** tons (22,680 metric tons).
4. Today when visiting, you can walk up a small staircase used by the people who constructed the dome.

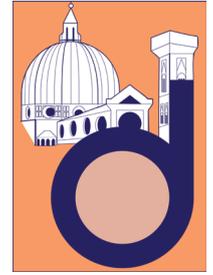


Colour me in





Dome



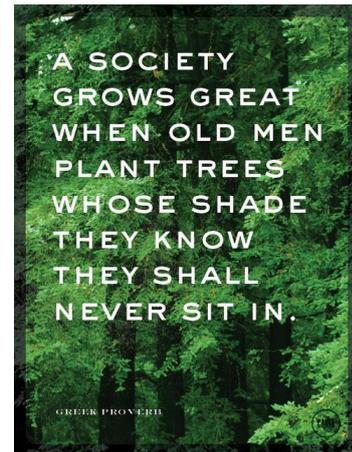
The dome of the Cattedrale di Santa Maria del Fiore in Florence was one of history's greatest design challenges. Construction began on the Church before they knew how to build the giant dome that was planned to span 46 meters wide. The hole in the roof was exposed for years until Filippo Brunelleschi solved the problem by designing two domes to be built on top of each other. His design used a specifically devised herringbone brick pattern and a pattern of fixed and mobile chains and ropes to make sure all the eight sides were coming together at the correct angles. The two domes together also helped to address the issue of spreading forces that had previously been solved by flying buttresses in past examples of gothic architecture but were not included here. Unfortunately Brunelleschi did not leave many clues as to how he designed and constructed the dome so while many historians believe they have some idea as to how it was done, there are still many questions about how the dome was made.

Cathedral Thinking

The visionaries behind the cathedral knew they would not be alive to see its completion but they started it for future generations. Can you start a project this week that would benefit people of tomorrow? What might that be?

An example of an ongoing project using this thinking is:

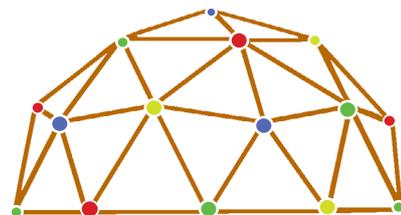
<https://www.futurelibrary.no/>



Activity

Take on a dome challenge yourself!

A dome is a structure that spans a space without any internal supports like columns. A geodesic dome, popularised by Buckminster Fuller, is a good place to start.



1. Use toothpicks and jelly candy or try whatever materials you have at home to construct a dome to see what you need to do to make it stand up.

2. Try to create a dome that is your size with an adults help.

<https://m.youtube.com/watch?v=jN3FMx1TYt8>