



BUILD A RENAISSANCE DOME

Name of the object and creator	Constructing a Renaissance dome from Saint Jacobs Cathedral at Šibenik built by Nikola Firentinac/Juraj Dalmatinac at 15 th Century; Marija Barlek – Teacher of Visual Arts at Lovre pl.Matačića Primary school				
Recommended ages	  10-11				
Thematic areas combined (STEAM)	Sciences	Technology	Engineering	Arts	Mathematics
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Materials needed	<ul style="list-style-type: none"> ● 1 piece of thick white paper (A3) ● 1 piece of white corrugated cardboard (A3) ● a stack of wooden skewer sticks ● hot glue gun with cartridges/white glue for wood ● pencil, eraser, ruler, triangle, divider ● stapler ● scissors ● light Styrofoam base (14x14 cm) 				



Outline of the
steps

1. **Construct and build a Renaissance dome** from Šibenik's Cathedral in pairs following steps using measurement tools.
2. **Glue and connect all the pieces** together taking care of the rules of statistics and safety while using tools.
3. **Check the stability** of the construction

References

- https://upload.wikimedia.org/wikipedia/commons/transcoded/b/bf/Catedral_Sibenik.ogv/Catedral_Sibenik.ogv.480p.vp9.webm
- <https://youtu.be/VyTd-coWngw>

STEP BY STEP: How to build a RENAISSANCE DOME

Step 1: How to construct a Renaissance dome?

Estimated time: 65 min

- Divide the students to work in pairs. Prepare all the parts using measurement tools and then assemble them. Follow this procedure by looking at the pictures:



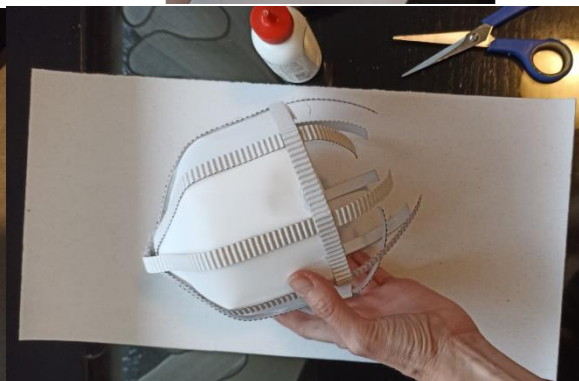
- Prepare 5 long strips of white corrugated cardboard paper that will serve as ribs to hold the construction of a dome.

Step 2: How to connect all the pieces?

Estimated time: 65 min

- Connect all the pieces using a stapler, hot glue gun with cartridges or white glue for wood. Be sure to watch for **safety** approaches because the glue is very hot!

- Assemble the paper dome with a stapler.
- Glue the ribs of corrugated cardboard on the dome's outer surface with white glue for wood or a hot glue gun to outline the shape.
- Break skewer sticks into 10 cm long columns and glue them on the inner side of the dome to make 16 pillars that hold the dome using a hot glue gun.
- Make a base for the dome out of light Styrofoam base (14x14 cm) or cardboard.
- Mark the octagonal shape where skewer sticks touch the board and create a base for your pillars using leftovers from cutting the Styrofoam.
- Glue the pillars on the base with a hot glue gun and let it set.





Step 3: Check the stability of the construction

Estimated time: 10 mins



The finished dome looks like this!

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