Bell Tower of Vilnius Cathedral Project

Description

In Vilnius, capital of Lithuania, we can visit a square where we will find important historical monuments or constructions for this country such as the Vilnius Cathedral, the Bell Tower o the Gediminas monument, considered as the founder of the Grand Duchy of Lithuania as an empire.

The bell tower is one of the most distinguished constructions of this square. With its 57 high meters, it is said that it was part of the defensive city walls. We can realize that it has two different architectonic styles, being the tower base more medieval and the rest of the bases have octagonal shape, typical of the neoclassical architecture.

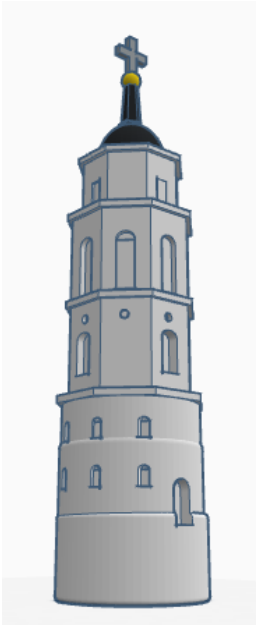
Nowadays, it is open to visits so people can enjoy the amazing 360 degrees view of this incredible city.

In this activity we are going to shape the Vilnius Cathedral Bell Tower.

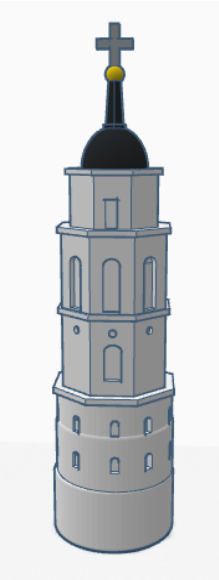
Objectives

- Improve the movement (vertical/horizontal) through the Tinkercad interface
- Modify the basic shapes changing their attributes at the “inspector”
- Practice the “Smart” duplicate technique
- Try to complete the cathedral square by adding the rest of the buildings working together with your partners.

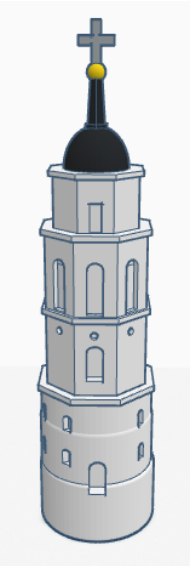
Reference model designed in Tinkercad



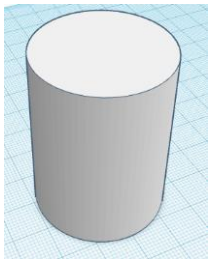
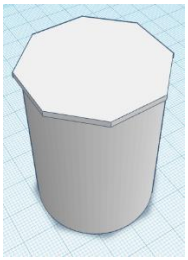
Front view

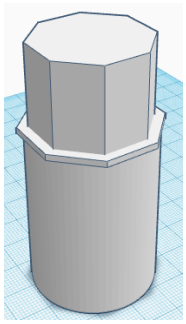
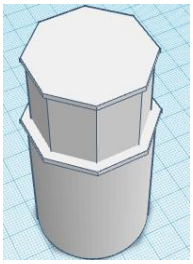
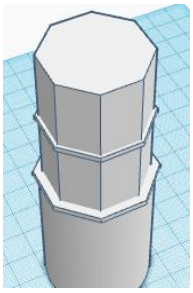
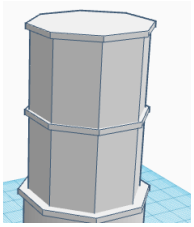
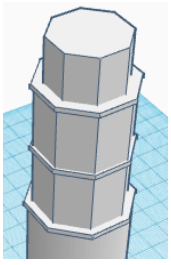


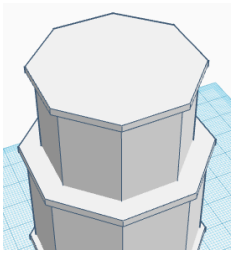
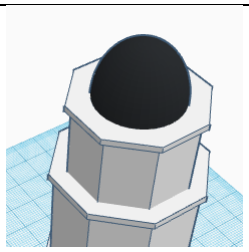
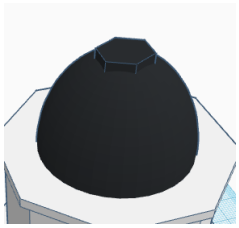
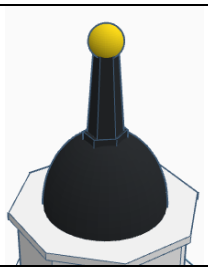
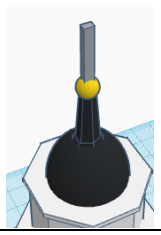
Rear view

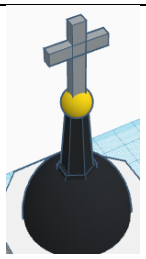


Model Features

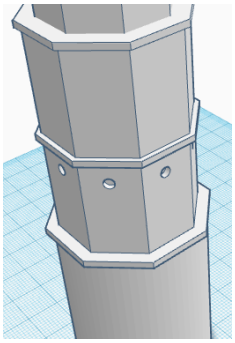
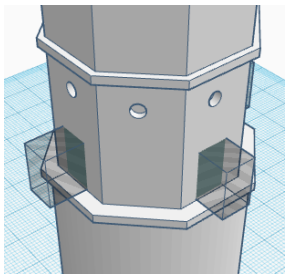
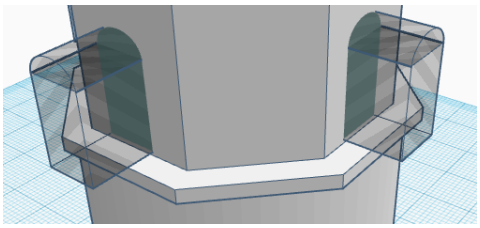
3D object	Size	Image
Cylinder	37mm of diameter x 50mm high Sides: 24	
Polygon	38mm wide x 38mm long x 1.50mm high Sides: 8	

Polygon	32mm wide x 32mm long x 24.50mm high Sides: 8	
Polygon	34.5mm wide x 34.5mm long x 1.50mm high Sides: 8	
Polygon	32mm wide x 32mm long x 24.50mm high Sides: 8	
Polygon	34.5mm wide x 34.5mm long x 1.50mm high Sides: 8	
Polygon	26.5mm wide x 26.5mm long x 18 mm high Sides: 8	

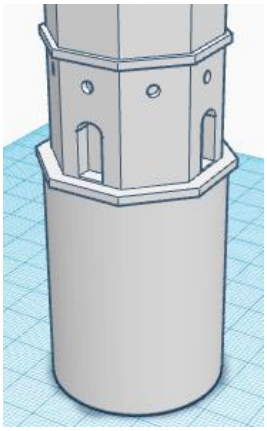
Polygon	29mm wide x 29mm long x 1.15mm high Sides: 8	
Half sphere	20mm of diameter x 13 mm high	
Polygon	6mm wide x 6mm long x 1.50mm high Sides: 6	
Cone	4.70mm wide x 5.40mm long x 14mm high Sides: 6 Upper radius: 6.32 Base radius: 10	
Sphere	5mm of diameter x 5mm high	
Box	2.20mm wide x 1.40mm long x 20mm high	

Box	10.20mm wide x 1.40mm long x 2.20mm high	

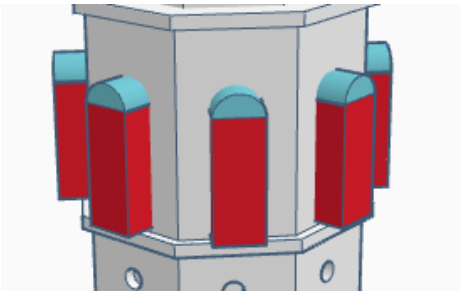
Now we have the tower structure, let's start with the windows and doors:

3D object	Size	Image
Empty Cylinder x 8	2.75mm wide x 9mm long x 2.75mm high	
Empty Box x 4	5.85mm wide x 9.85mm long x 9.75mm high	
Empty Round Roof x 4	5.85mm wide x 9.85mm long x 2.25mm high	

We will group the cube and the curve roof with the tower to create the windows of the first floor.



We are going to use the previous objects to create the second floor windows. This time we will change the cubes height to 15.50mm. Then, we will group the empty cubes with the tower to get this result.



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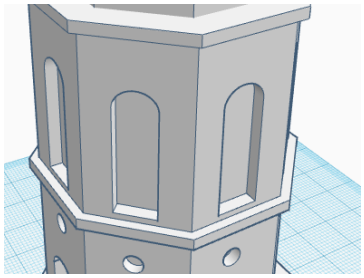
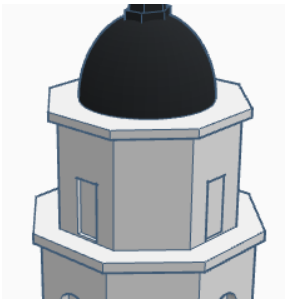


To create the holes of the last floor, we are going to use the following shapes:

3D object	Size	Image
Empty Box x 4	4.10mm wide x 7.20mm long x 9.20mm high	

With this last step, we have just finished the model structure. Now it is your turn to customize it to your liking.

In our case, we have used two tubes to give a more curved shape to the base floor and we have added the Vilnius Cathedral.