

5th Grade Volume Project: Architecture Challenge

In this project you will take on the role of architects from an architecture firm. Your objective is to design a home for Mr. Python and his family. Mr. Python has provided a few specifications for the design:

- Home must have a footprint of 150 to 250 square meters (The footprint is the area of the home site, defined by the perimeter of the building plan).
- At least 3 bedrooms (One master bedroom, one for the daughter and one for the son).
- Wants lot of natural sunlight coming into the home
- Multi-story home (home that has more than one floor)
- Home must be a composite rectangular prism, made up of at least three or more rectangular prisms that are all different sizes (Composite rectangular prism: composed of two or more non-overlapping right rectangular prisms).
- Would like to know the volume of each of the rectangular prisms that make up the home and also the total volume of the home.

Step 1: Watch the video of Mr. Python to find out his expectations for the design. Watch the review video for area, perimeter, and volume

Step 2: Decide on the medium you will use to design Mr. Python's home. You might use: pencil and paper, 3-D objects (like boxes) from your home, Minecraft, or another online design tool. As long as you can fulfill the requirements, use whatever tools you want!

Step 3: Follow the specifications list to design a home for Mr. Python. Use the planning sheet to check and recheck each specification to ensure that he will approve your design!