

Lesson 3



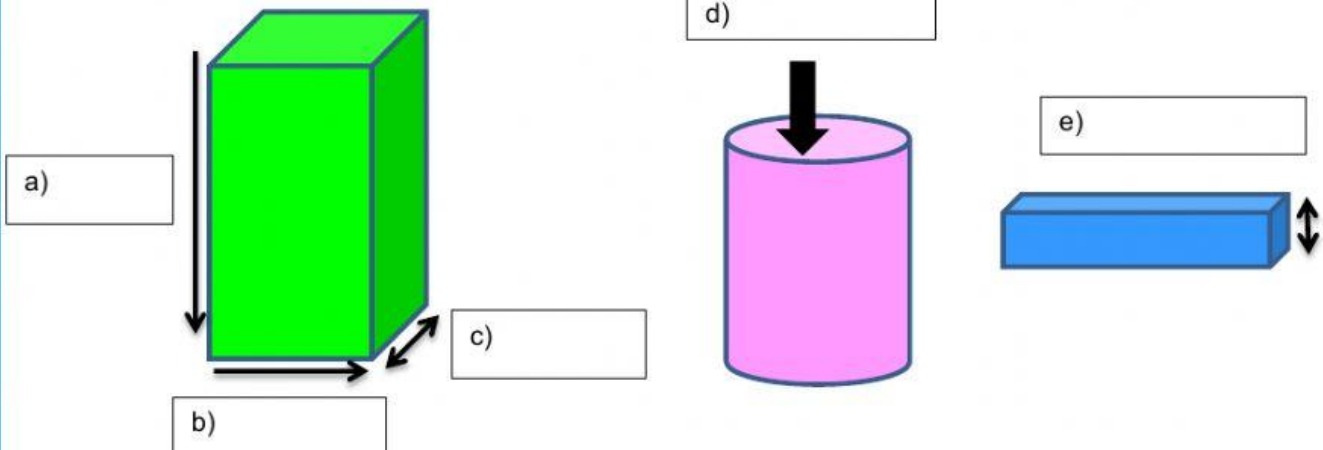
What are the key elements which determine the skyscraper's dimensions?

✚ **Let's work with vocabulary: Dimensions of skyscrapers** (trabajemos con el vocabulario: dimensiones de los rascacielos)

- 1- Label the diagrams with dimensions of skyscrapers. Use the information given in the video and the words in the box (Rotula los diagramas con las dimensiones de los rascacielos. Utilice la información proporcionada en el video y las palabras en el cuadro):

Dimensions:

length - thickness - width - depth - height



- 2- Complete the chart with the correct adjective. Use the words in the box. (Completa la tabla con el adjetivo correcto. Utilizar las palabras en el cuadro.)

deep - high - long - wide

Noun	Adjective
Height	
Width	
Depth	
Length	

 Let's read (Leamos)

- 1- Read about the key dimensions of skyscrapers (Lee sobre las dimensiones claves de los rascacielos)

Key dimensions which determine overall height of skyscrapers

- The total height will determine the width of the skyscraper, as taller structures need to be wider, for stability.
- The height and width will determine the total area of the curtain walls.
- The area of the curtain walls will determine the amount of wind load on the building.
- The amount of wind load will affect the depth of the foundations needed in order to keep the building stable, and the thickness of columns needed to resist the bending force generated by the wind.
- Increasing the height of the building will require thicker columns to resist the increased wind loads, and to support the increased total mass of the structure.
- Thicker columns will reduce the area of the floors.
- The thickness of the floor slabs will affect the total height of the building for a given number of floors.

Adapted from www.cambridge.org/elt/englishforengineering

 Read in detail (Lee en detalle)

- 1- Read the text again and complete the flow chart about factors which determine the dimensions of skyscrapers with the phrases from the box
(Lee de nuevo el texto y completa el diagrama sobre los factores que determinan las dimensiones de los rascacielos con las frases del recuadro):

Height + width

will determine
depth of
foundations

will reduce
area of floors

will determine
width of
skyscrapers

will determine
thickness of
columns

will determine the
amount of wind
load on the building

will determine
total area of
curtain walls

will affect total
height for a given
number of floors

