

1. Classify the following structures as **NATURAL** or **MANUFACTURED** structures:

1 	2 	3 
4 	5 	6 
7 	8 	9 

Do you recognize the manufactured structures and the place where they are? Drag each name to the corresponding image.

Sydney Opera House

Cangas de Onís bridge

Aqueduct of Segovia

Empire State (NY)

Eiffel Tower (Paris)

2. Relate every type of structure and its definition:

TYPE OF STRUCTURE	DEFINITION
SHELL	Structures made with horizontal and vertical members (bars, beams...)
TRIANGULATED	Solid structures which rely on their own weight to resist loads
SUSPENDED	Structures hung from cables called tie rods.
LATTICE	They are assembled to make one piece. Thin sheets of different materials are used to make them.
MASS	Structures made with archs, vaults and domes.
VAULTED	Strucutres made of bars joined in triangulated shape.

Drag each image to the corresponding type of structure it belongs



LATTICE

VAULTED

TRIANGULATED

SHELL

MASS

SUSPENDED

5. Which are the conditions of a structure to work well?

- a) Ability of a structure to support forces without becoming deformed.
- b) Ability to support forces without breaking.
- c) Ability of a structure to remain upright and not collapse.

6. Match every picture with the effect produced by the force acting on every object.



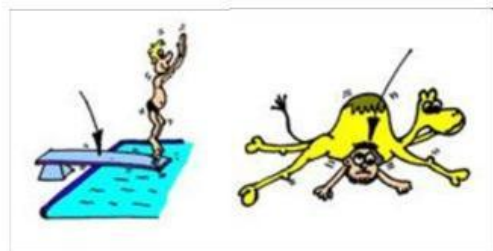
CUT



PULL



BEND



TWIST

PRESS

7. Write the name of the stresses represented in the following pictures:

