

STRUCTURES – vocabulary

required
optional

Structure: a natural or human made object that carries a load

SHAPES & shape words

****Arch**



****Column** : solid; hollow (tube)



Cone



Cube (= square prism)



Dome



Flat

Hexagon, Hexagonal prism, Hexagonal pyramid

Octagon, Octagonal prism, Octagonal pyramid

Pentagon, Pentagonal prism, Pentagonal pyramid

Rectangle

Rectangular based pyramid, Rectangular prism

Sphere (ball); circle in 3D

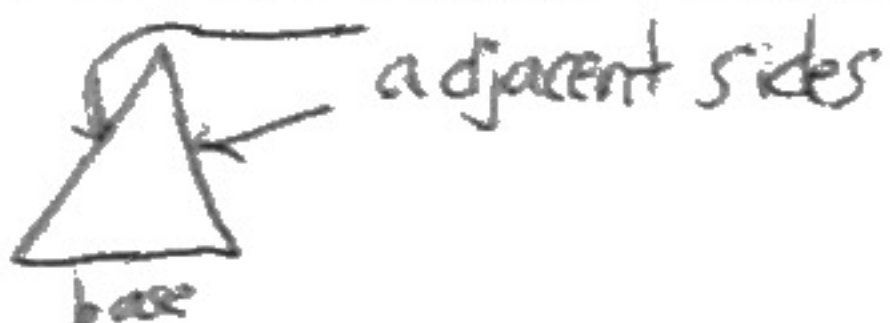
Square (type of rectangle)

Square based pyramid

Triangle, Triangular prism, Triangular pyramid

POSITION/LOCATION – words that answer "Where?"

Adjacent (beside)



Apex



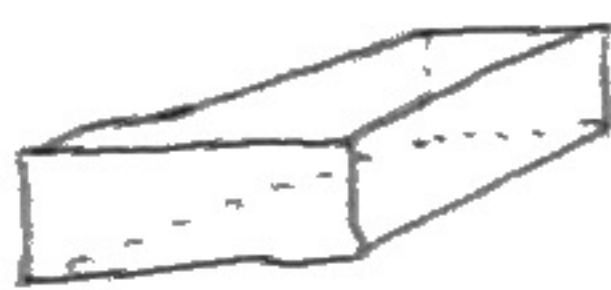
Back face

Base

Front face

Side face

Top face



Intersection (where two lines cross)



POSITION/LOCATION word, continued....

Horizontal



Vertical



FORCES & affects of forces & related words

Compression – two pushing or squeezing forces opposite and lined up to each other; can help keep parts of a structure together



Tension - pulling or stretching; can help keep parts of a structure together



Friction – force that results from two objects or surfaces rubbing together; can help to keep objects or surfaces together as they pull against each other in opposite directions

Gravity (force that pulls an object with mass to centre of earth)

Shear force – two pushing or squeezing forces NOT lined up to each other; results in the object breaking apart



Torque – a force causing a structure or part to twist or rotate

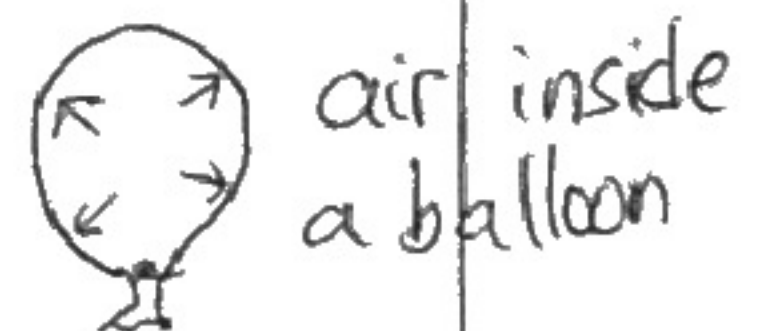


Related force words:

External forces – forces from outside a structure



Internal forces – forces from inside a structure



Impact – one object hitting another object; strength depends on mass of the object(s)

Load - a load exerts a force of gravity on the structure that is carrying it; effect of the load depends on the how much the load weighs (mass) --- structures also put a load on themselves

Tensile force - how much a material can stretch without tearing apart

Vibration – a continuous slight shaking movement