

Unit 1 Performance requirements

External Exam component

Unit 1 Performance requirements

What do the following properties mean?

Strength

Stability

Fire resistance

Thermal insulation

Sound insulation

Weather resistance

Sustainability

BIG



Unit 1 Performance requirements

What do the following properties mean?

Strength – How strong a material is.

Stability – How an item can cope with Varying conditions, such as a building and adverse weather conditions.

BIG



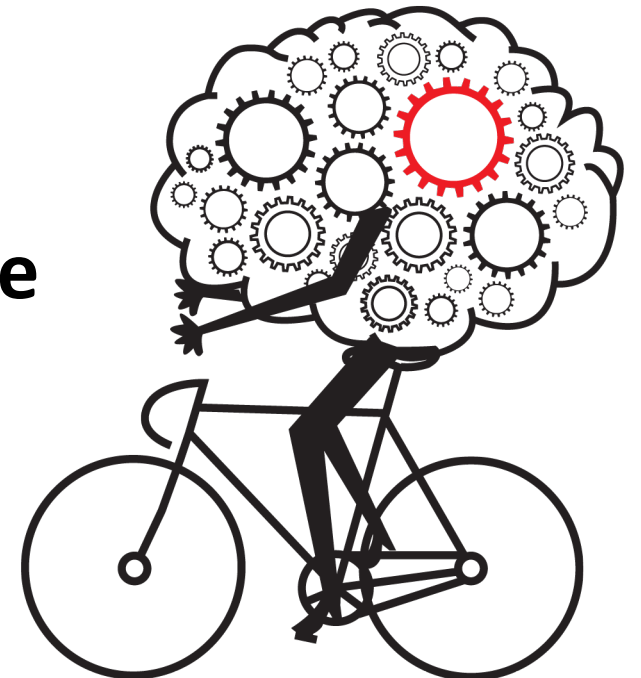
Unit 1 Performance requirements

What do the following properties mean?

Fire resistance – a materials ability to withstand Fire.

Thermal insulation – Ability to reduce the flow of heat from escaping.

BIG

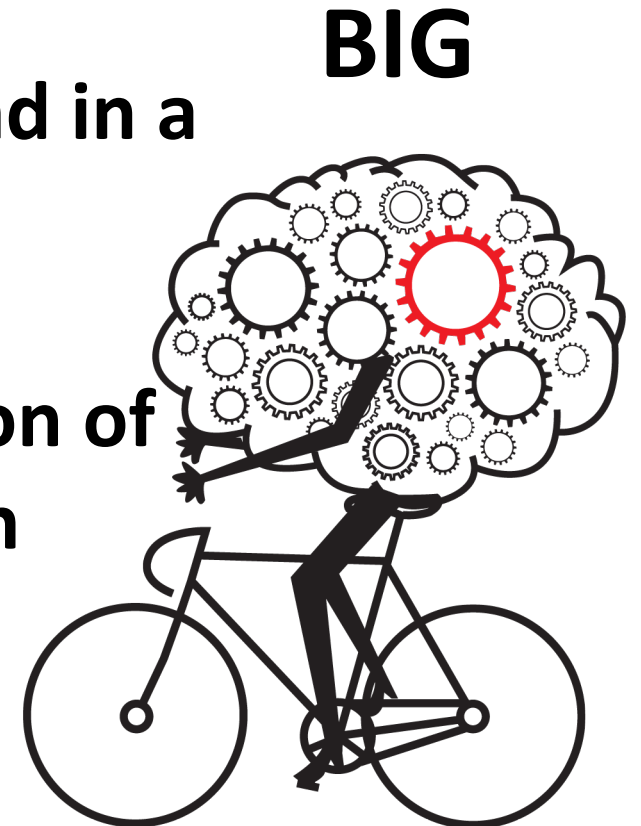


Unit 1 Performance requirements

What do the following properties mean?

Sound insulation – ability to muffle sound in a Room or space.

Sustainability - avoidance of the depletion of natural resources in order to maintain an ecological balance.



Unit 1 Performance requirements

Sketch a low rise building into your book and annotate the key features.

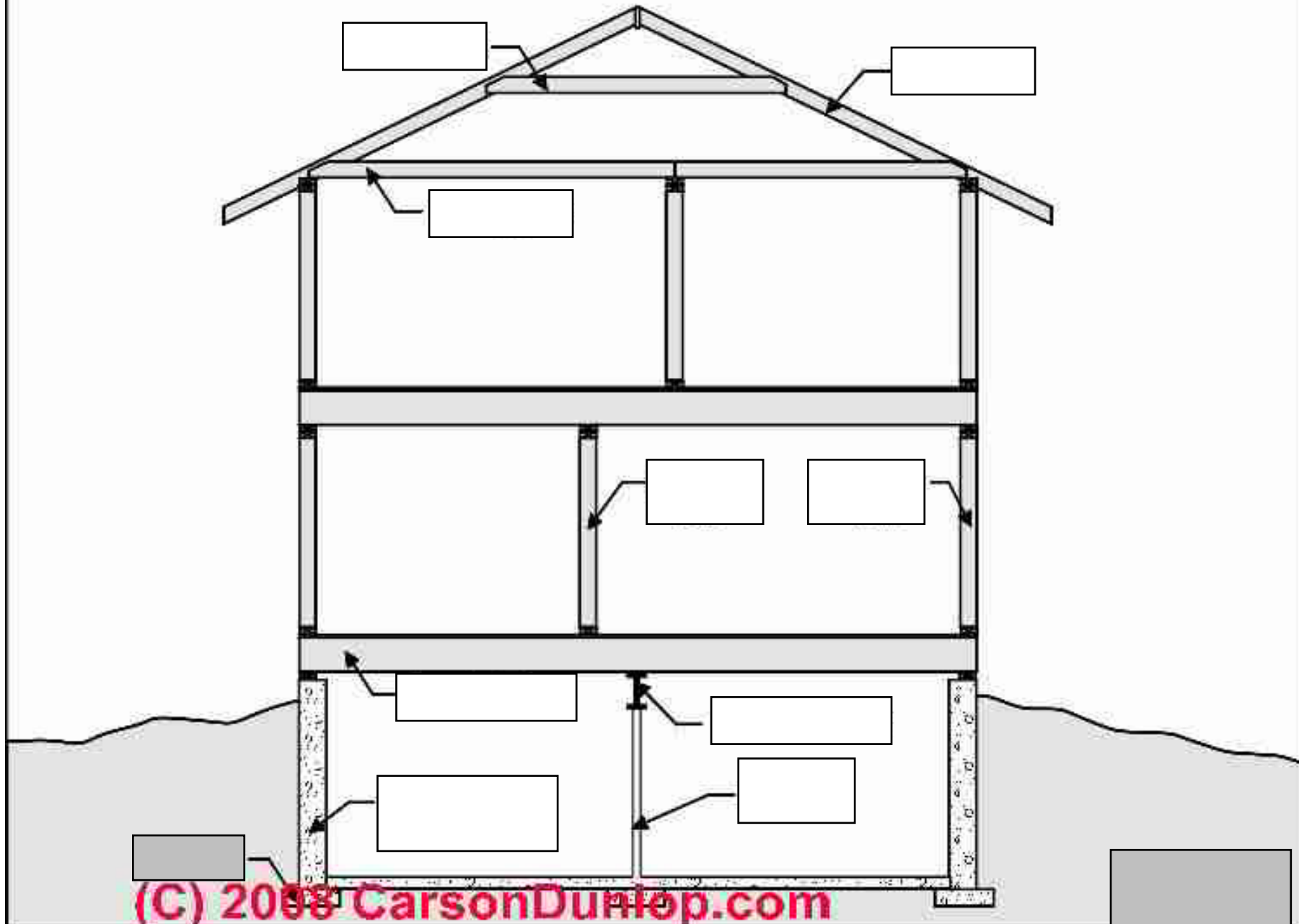
House

**Small building with more
Than one floor**

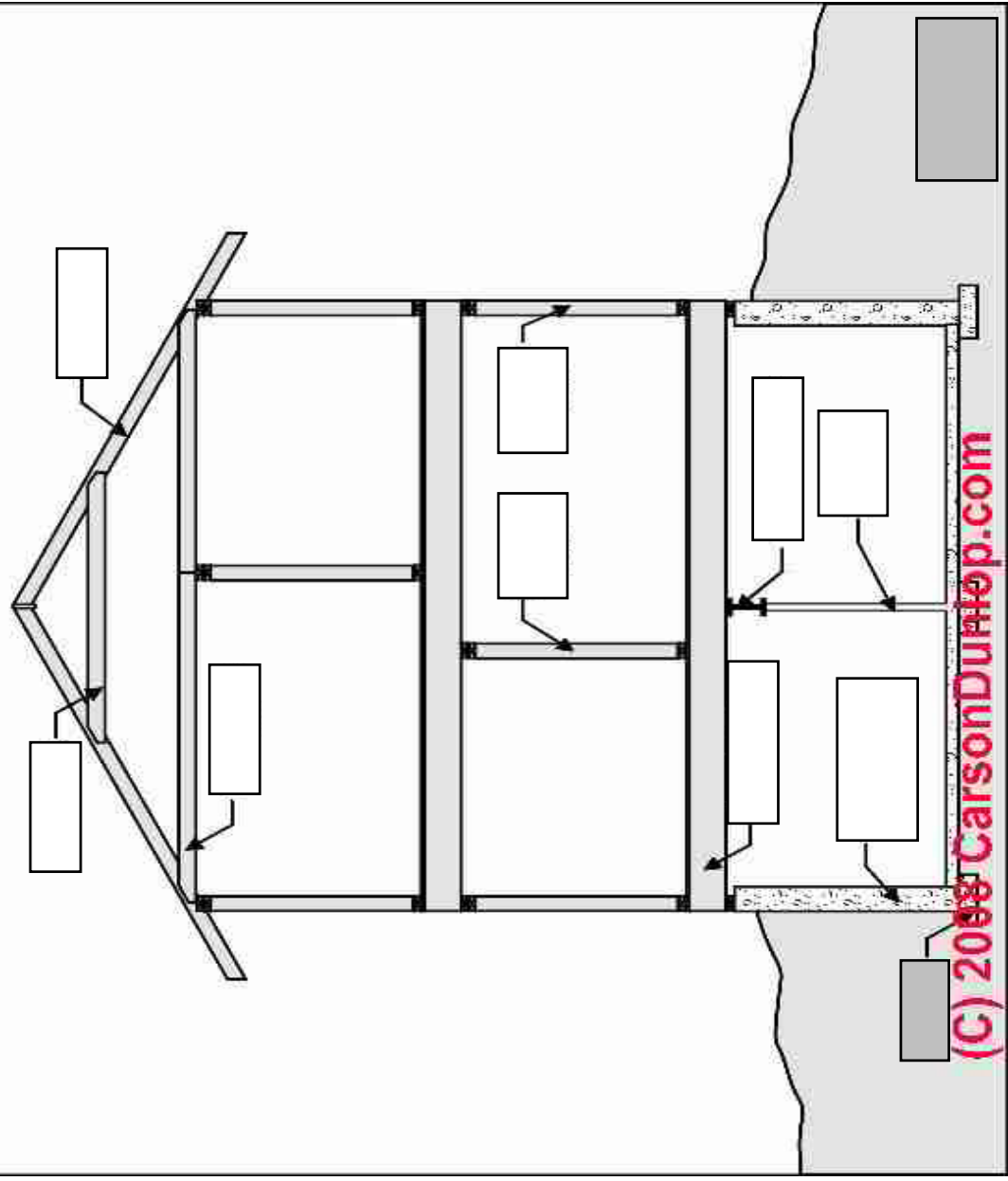


Overview of house structure

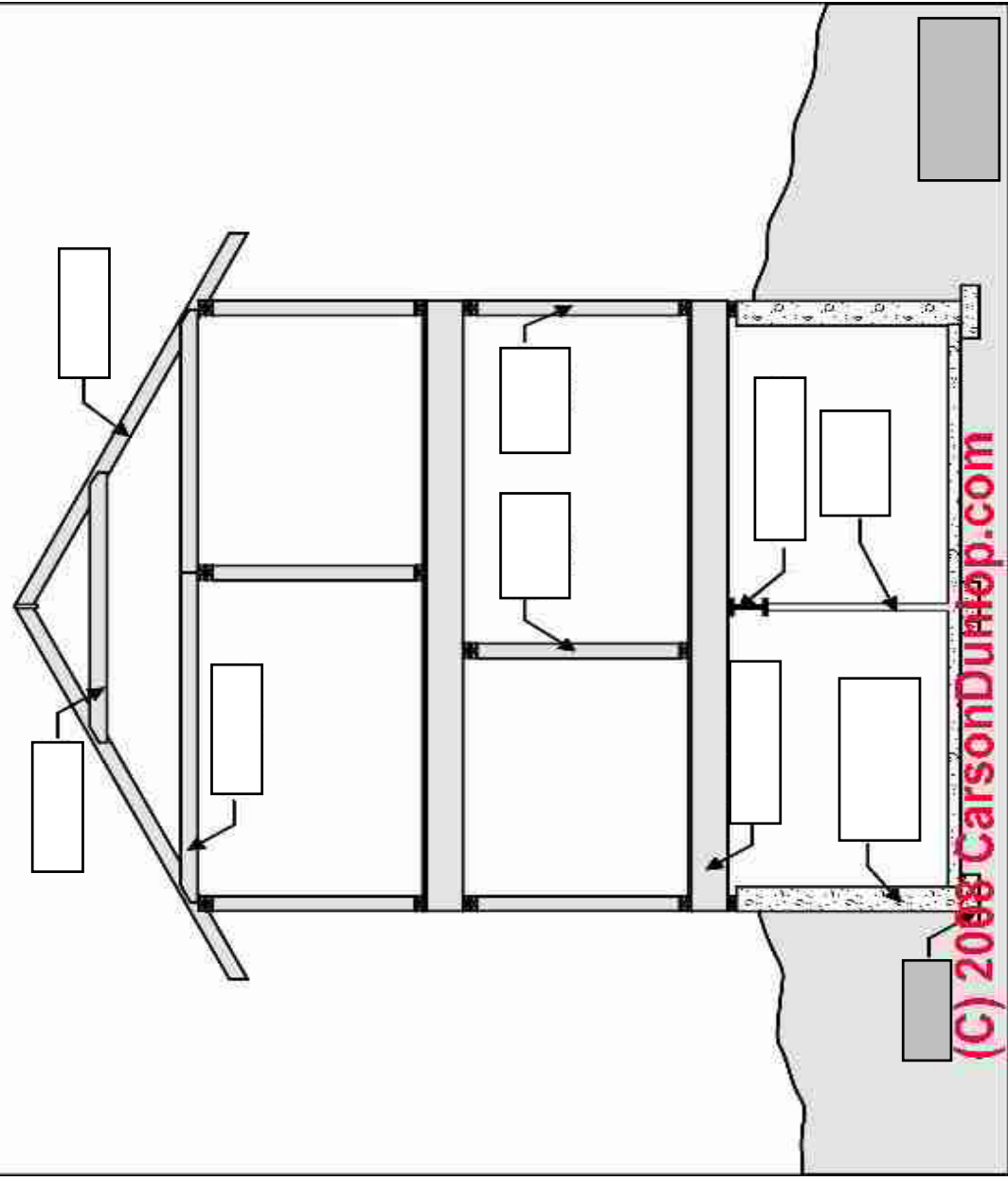
Label the house structure



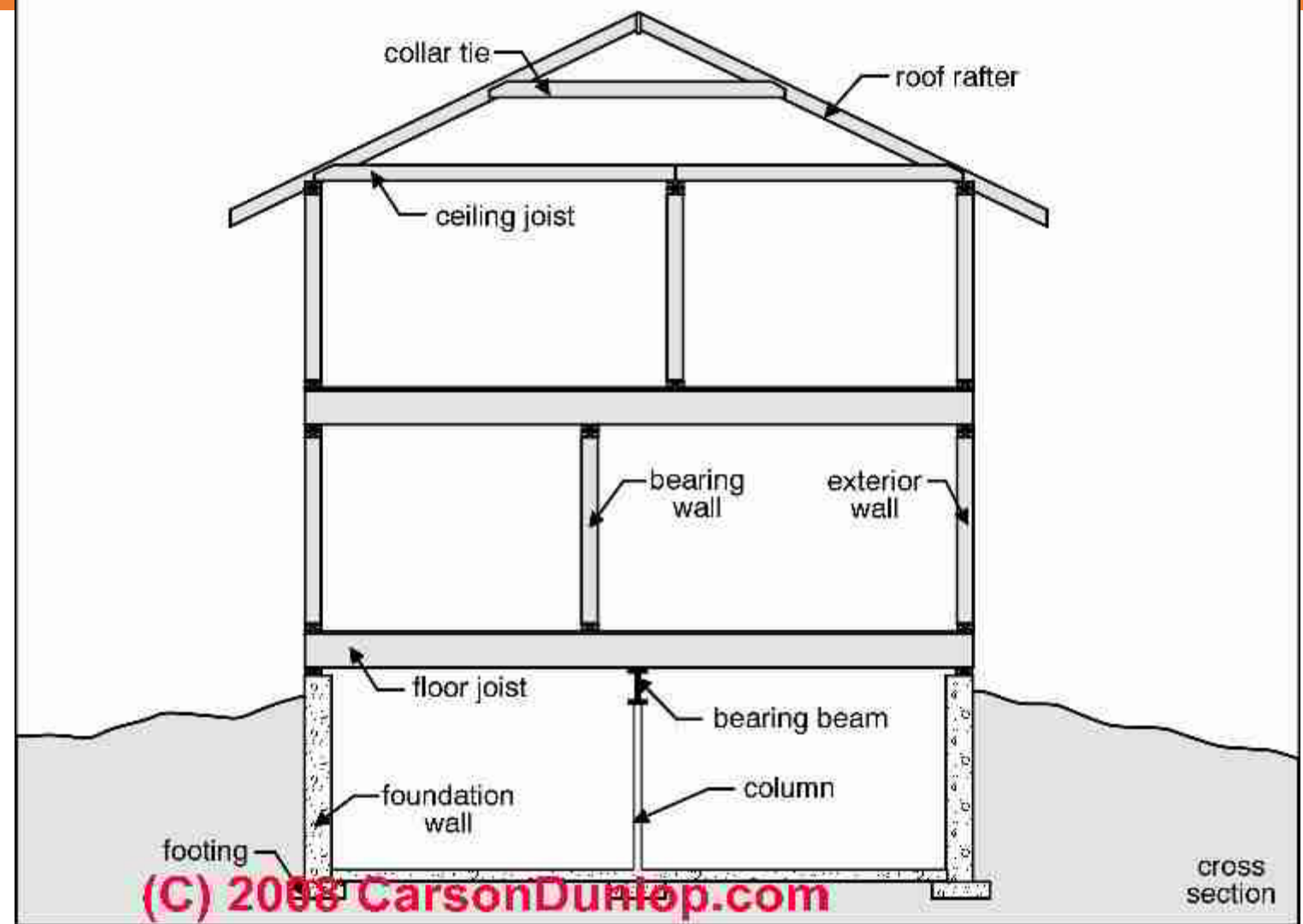
Overview of house structure



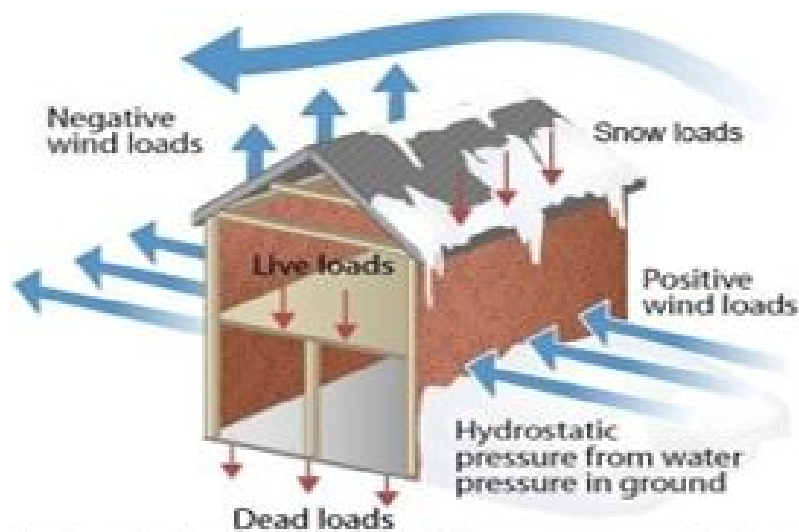
Overview of house structure



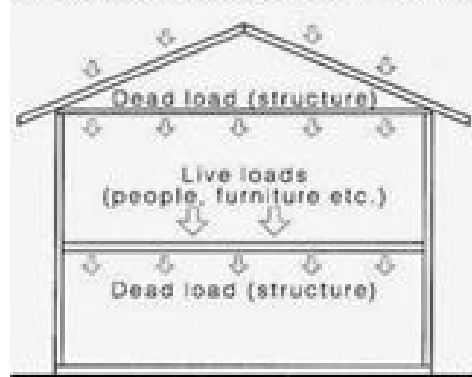
Overview of house structure



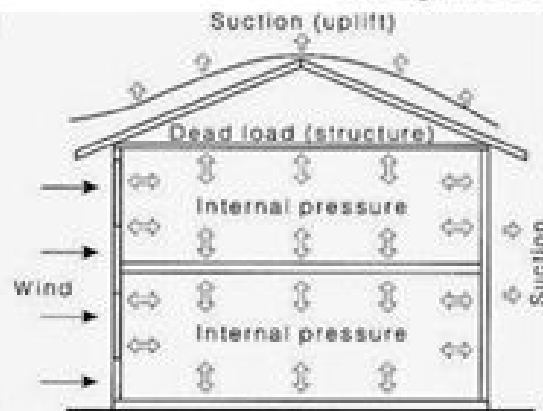
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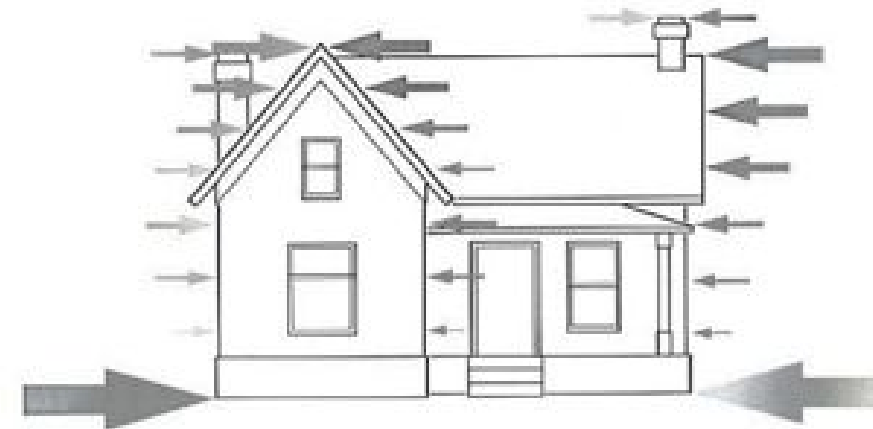
Construction load (people, materials)



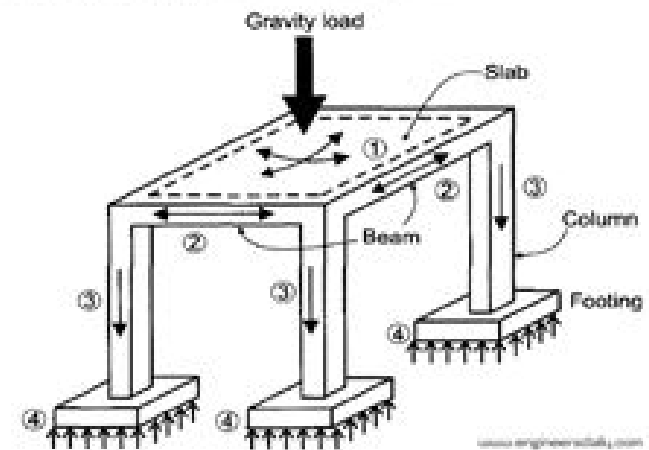
(a) Gravity loads



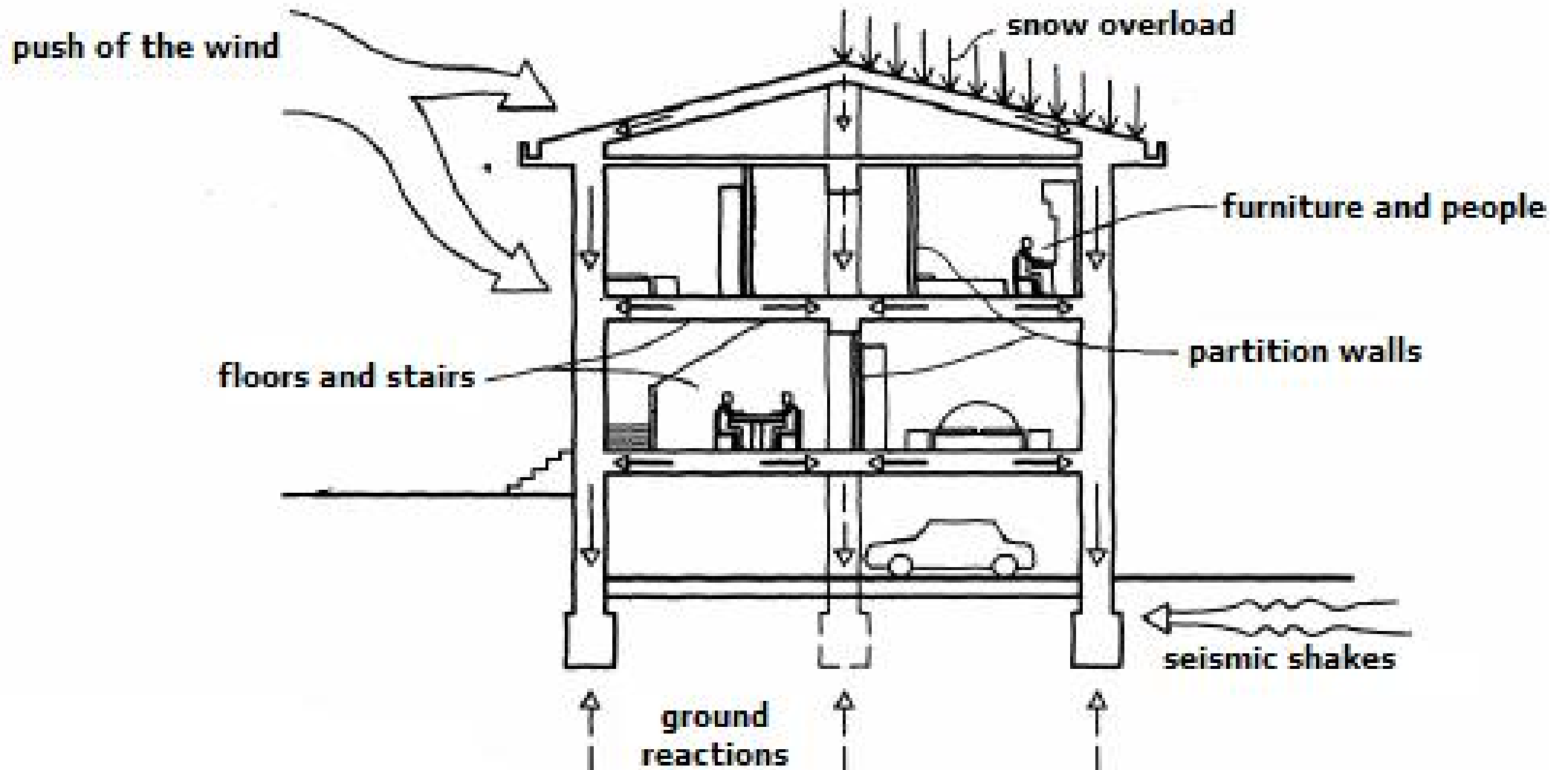
(b) Uplift wind loads



Horizontal earthquake forces (back-and-forth shaking) create 'whipping' forces in all parts of a building. These forces must transfer between parts of the building to the foundation.



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Plenary:

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