

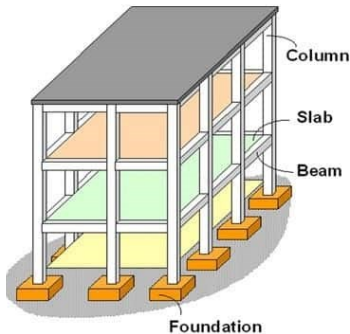
Structures (frame structures)

Prior Learning: Experience of using measuring, marking out, cutting, joining, shaping and finishing techniques with construction materials. Basic understanding of what structures are and how they can be made stronger, stiffer and more stable.

Facts

Frame structures

- A frame structure consists of different parts. These parts are combined in such a way to make the structure strong.
- Frame structures have joins which keep them together.
- Frame structures utilise the combination of a beam, column and slab.



Vocabulary

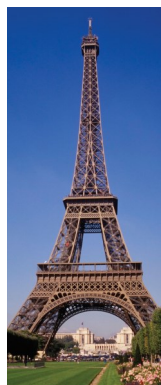
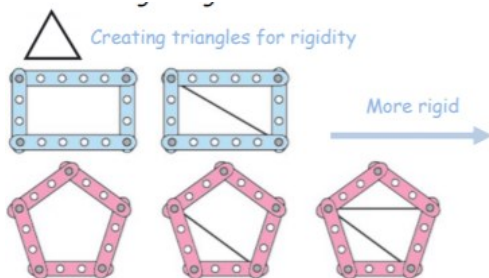
1. Compression – the application of pressure to squeeze an object.
2. Strut – a part of a structure under compression.
3. Diagonal – a straight line that goes from one corner to another inside a shape.
4. Triangulation – the use of triangular shapes to strengthen a structure.
5. Frame structure – a structure made from thin components e.g. tent frame.

Job opportunities

- ⇒ Mechanical engineer
- ⇒ Architect
- ⇒ Construction
- ⇒ Surveyor

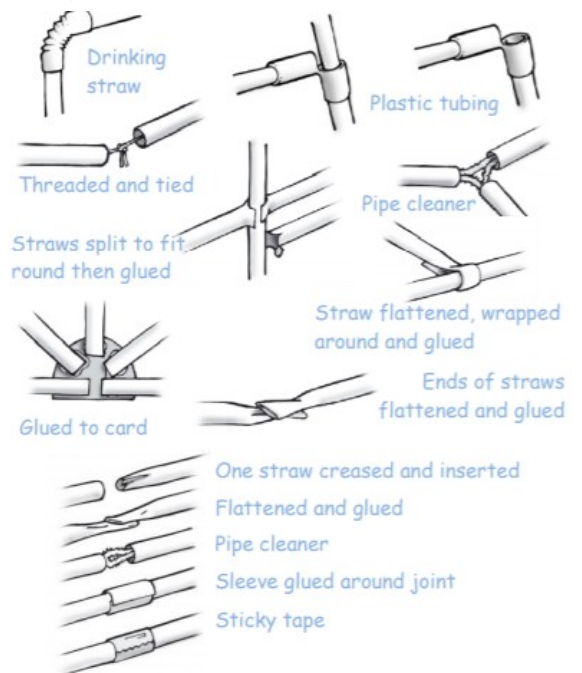
Triangulation

⇒ Triangulation involves the use of triangular shapes to give stability to structures.

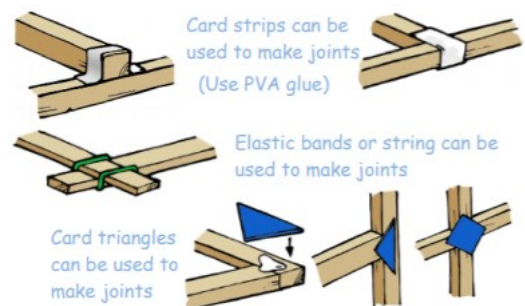


Joining techniques

Joining straws



Joining thin wood



Youtube:

<https://www.youtube.com/watch?v=mBHjtWbsiaA>—strong structures with triangles.

