

TECHNOLOGY- GRADE: 7

Investigating design issues P.gs 108

NB: All worksheets are integrated for weeks one and two.

When designing and constructing structures there are various design issues that we need to consider.

These include structural elements (what the product will be made of, what will it do and what will it look like.

- ❖ Reinforcing techniques (how will you strengthen the structure.)
- ❖ Stability. (how will you make it more stable).
- ❖ Visual pollution (whether the structure will be unattractive to the environment or not).
- ❖ The structures impact on the environment.

These are the things that make up a structure, and some important things that you would consider when considering building a structure.

<i>STRUCTURAL ELEMENTS</i>			
BEAMS	STUTS	TIES	GUYS
Beams can withstand loads because they don't bend.	A rod or bar forming part of a framework and designed to resist compression.	Ties are opposite of struts. They resist the tension forces which means that they can support other elements that have tension forces exerted on them.	Tension cable that is used to keep a vertical structure upright.

To reinforce a structure means that you need to make the structure stronger.

Refer to page 110 in your textbook and complete classroom activity 1(pg. 110+111) and activity 2 (pg. 112).