

Structures Review Topics 1-3

Name: _____

Topic 1 Types of Structures

1. Structures can be classified as being natural or manufactured. Give two examples of each type.

2. Structures can also be classified by their design as being either a **mass**, **frame** or **shell**. Describe each type, with an example, and give the advantages and disadvantages of each type.

Mass Description:

Examples:

Advantages:

Disadvantages:

Frame Description:

Examples:

Advantages:

Disadvantages:

Shell Description:

Examples:

Advantages:

Disadvantages:

3. Classify the following as either a frame, mass, shell or a combination.
 - a. A pop can
 - b. A backpacking tent
 - c. A beaver dam

Topic 2 Describing Structures:

4. What are the 5 things a designer must consider when planning a structure
 - 1.
 - 2.
 - 3.
 - 4.
 - 5.
5. What is meant by margin of safety?
6. Mobile joints are _____ to make and need to be _____ in order to work properly.

7. What are 5 types of rigid joints? Give an example of each.

1. example:
2. example:
3. example:
4. example:
5. example:

8. What is reinforced concrete? Why is it better than regular concrete?

Topic 3 Mass and Force

9. What is the difference between mass and weight?

10. Please fill in the following chart

	Units	Measuring Instrument
Mass		
Weight		
Force		

11. Answer the following:

$$1 \text{ N} = \underline{\hspace{2cm}} \text{ g}$$

$$1 \text{ Kg} = \underline{\hspace{2cm}} \text{ g}$$