

Structures and Forces Pop Quiz

Topic 2 - Describing Structures

Name _____ Class _____

1. Containing, sheltering, transporting, lifting ... are all words to describe a structure's
 - A design
 - B stability
 - C function**
 - D aesthetics

2. When a structure is built to withstand loads - more than it normally would carry - the structure is built with a larger ...
 - A foundation
 - B symmetrical base
 - C set of pilings
 - D margin of safety**

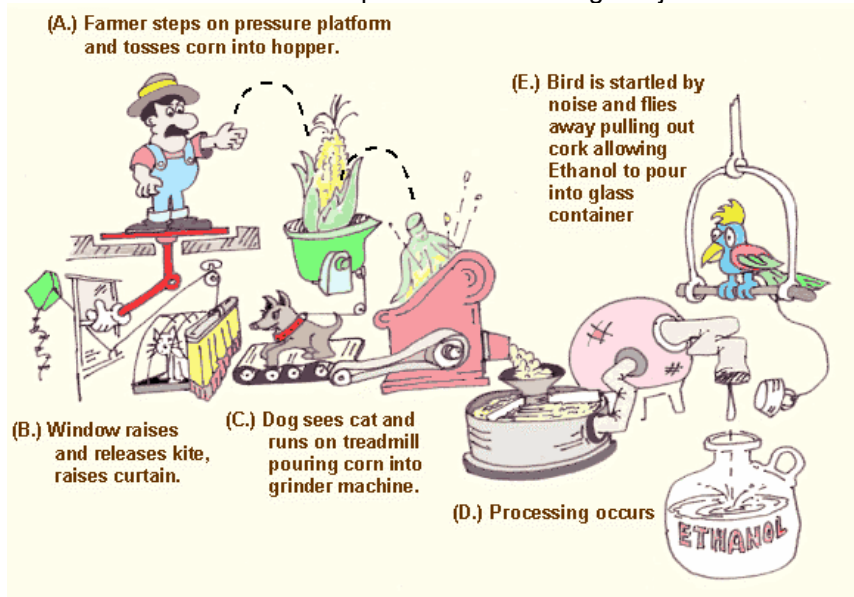
3. One important criteria of good design - that is usually not written down in the specifications - is that the structure ...
 - A has a margin of safety
 - B is esthetically pleasing**
 - C is cost effective
 - D has a solid foundation

4. The following is an example of a composite material
 - A a cardboard box
 - B tent
 - C drywall
 - D reinforced concrete**

5. When choosing the most suitable materials to build a structure, architects, engineers and designers should consider all of the following before making their final choice ...
 - A cost, appearance, environmental impact, energy efficiency**
 - B cost, color, life expectancy, impact strength
 - C environmental appearance, type of symmetry, type of joints needed, cost effectiveness
 - D flexibility, impact strength, energy efficiency, color

6. Mobile joints are used to secure materials together in a structure. All of the following joints are examples of mobile joints (allowing movement in a structure) EXCEPT ...
 - A a trailer hitch
 - B photocopier lid
 - C ball and socket joint (shoulder)
 - D lego**

7. Adhesives are used to bind materials together. A type of adhesive that hardens when it cools is ...
- A thermosetting glue**
 - B therapeutic glue**
 - C solvent-based glue**
 - D solvent-enriched glue**
8. A structure often has many parts that have different functions. **Rube Goldberg** was famous for making useless devices, but each part of the device he designed had a specific function. This illustration shows how to pour ethanol into a glass jar.



The function of the **corn grinding machine** in this device is ...

- A containing**
 - B transporting**
 - C separating**
 - D holding**
9. To make something look good in nature designers have to study beauty in art and nature. This is called ...
- A Aesthetics**
 - B Anesthetics**
 - C Apathetics**
 - D Analgesics**
10. The design of interlocking yarn in a knit material allows this to happen throughout the fabric.
- A reduces the forces**
 - B relieves the forces**
 - C supports the forces**
 - D spreads the forces**