



Conquesta 2019

(International Multiple Choice Primary School Olympiads – Est. 1998)
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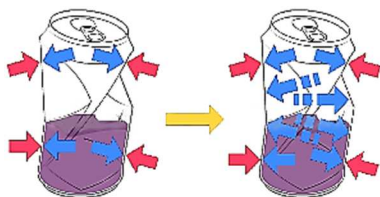
Technology – Grade 9

Welcome to your Conquesta Olympiad. When you have decided which of the answers is correct, scratch out the letter in the matching square on your answer sheet. Example:- If the answer to question 4 is c, then scratch out the letter c in the square containing c next to the number 4 (see example 1 below). If you've made a mistake and b should have been the answer, neatly cross out the mistake and then scratch out b (see example 2 below).

Example 1:- 4. a b ~~c~~ d

Example 2:- 4. a ~~b~~ ~~c~~ d

The Design Process Skills



1. Pascal's Principle states that 'pressure exerted anywhere in a confined fluid is transmitted in all directions throughout the fluid such that the pressure ratio remains the same.'
- (a) incompressible, unequally (b) incompressible, equally
 (c) compressible, unequally (d) compressible, equally

2. Which one is not a step in the design process?

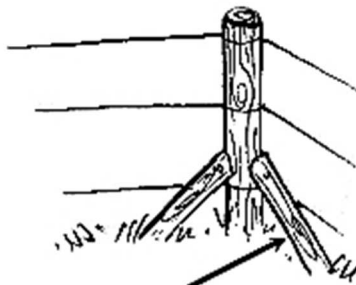
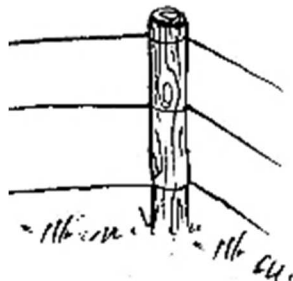
- (a) Plan.
 (b) Investigate.
 (c) Make.
 (d) Design.



3. An example of a specification, as included in a design brief, is that

- (a) you have two hours to complete the task.
 (b) the pulley must lift a load of 500 g to a height of 1 m.
 (c) you must not waste materials.
 (d) you may only work in groups of four learners.

Look at the diagrams below and the comments listed in notes (i) – (iv).



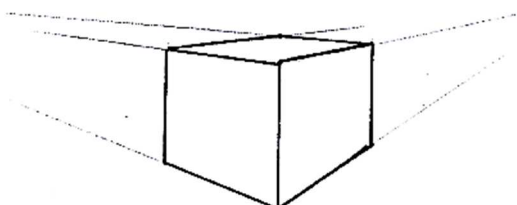
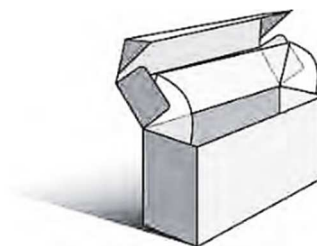
- (i) The post with struts will not be able to withstand the forces of the wires.
 (ii) The post with struts will withstand the force because the struts will strengthen the post in order to prevent it from bending under the force of the wires.
 (iii) The post without struts will not be able to withstand the forces of the wires.
 (iv) The post without struts will withstand the force.

4. A short evaluation of the two structures, explaining which structure will be the most suitable to support the forces. Which two are correct?

- (a) i and iii. (b) iii and iv. (c) ii and iv. (d) ii and iii.

5. The designer of the portfolio container, made use of which improvement technique/s when sketching the product on the right?

- (a) Texture.
 (b) Thick and thin lines.
 (c) Shade and shadow.
 (d) (a), (b) and (c) are correct.



6. The illustration on the left is used to show how to draw objects in a/an

- (a) isometric drawing.
 (b) perspective drawing.
 (c) oblique drawing.
 (d) orthographic drawing.