

Grade 8 Technology Worksheet

Problem identification and design specification

Scenario – Background context

A small rural community has a problem. During most of the year, it is easy to cross the river to go to school or the clinic, as it is just a shallow stream. But when the heavy rain falls in summer, the stream turns into a raging torrent for several weeks. This has caused two children to be washed away recently as they tried to get home from school. It has also meant that the elderly and sick cannot get to the clinic.

Design

1. State clearly the problem or need. [2 marks]
2. When designing a solution to the problem, you need to show how you have considered:
 - a) people – age, target market, human rights, access
 - b) purpose / function – what the product will do
 - c) appearance – colour, shape, style
 - d) environment – where it will be used, possible impact on the environment
 - e) safety factors to consider – for users
 - f) cost – cost of materials, cost of manufacture, possible transport costs[6 x 3 marks]
[20 marks]

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Suggested Solutions

Question number	Possible marks	Answers
1	2 marks	Follow the guidelines – own design
2	18 marks [6 x 3 marks]	Follow the guidelines – own design

[20 marks]