

SUSTAINABLE BIO-TEXTILE ENGINEER

THEORETICAL PART



Context:

You are in a common shopping mall, surrounded by fast fashion enterprises which promote cheap fabrics for cheap prices. The racks are packed with brightly colored garments, all priced attractively, promising the latest styles and trends. This situation is however one of the biggest contributors to environmental degradation.

It's a world driven by speed and affordability, but at what cost to the planet? While trying to find an answer to this question, you can't help but think about the alternative: sustainable bio-textiles, fabrics made from renewable resources like hemp, cotton, or even agricultural waste.

These materials, while still relatively rare in mainstream shopping malls, can contrast the disposable nature of fast fashion.



GUIDANCE PART

Related Contents/Skills:

Critical Thinking

Biopolymer Chemistry

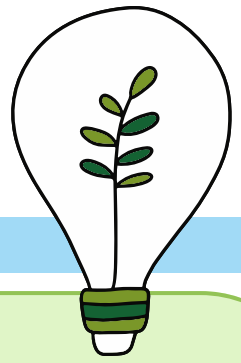
Supply Chain Management

Ethical Awareness

Creativity

Self-Reflection Questions:

- What new techniques can be explored to improve the strength and durability of natural fibers, making them competitive with synthetic alternatives?
- How can bio-textiles be made more accessible to consumers who are used to the low price and convenience of fast fashion?
- How can consumers understand the value of sustainable fabrics and be encouraged to make more environmentally conscious purchasing decisions?
- How can one keep on expanding his knowledge of materials science and sustainability to stay ahead of emerging trends in the textile industry?



Analysis:

- What is the main problem or need to be addressed?
- What knowledge and skills are necessary to tackle this situation?
- What are the strengths and weaknesses of the context in which this problem arises?

Planning:

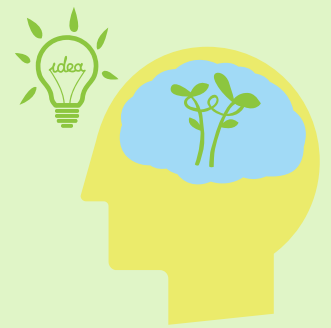
- How can an initial plan be developed to address the identified needs?
- What material and human resources are available to address the situation?
- What specific actions should be taken to implement the solution?

Suggestions and Prevention:

- What suggestions can be offered to execute the proposed solutions?
- How can risks or potential future problems related to the solution be prevented?

Evaluation:

- What methods can be used to assess the success and sustainability of the implemented solutions?
- How will the evaluation be conducted, what instruments will be used, and what variables will be analysed?



Expected Results after Implementation

What are the expected outcomes after implementing the solutions?
How is the future context expected to look after our intervention?
What suggestions can be made for future applications, maintenance, or performance improvements?

Reflection on Developed Competencies and Project Impact:

What competencies were developed and what is the potential impact of the project?
What difficulties or strengths were identified during the implementation of this EcoJob in a real context?
How is the coherence of the EcoJob analysed, and how suitable is it in relation to the identified need?

