

- Teacher guidelines for case study - How sustainable fashion contributes to the closed-loop economy?



Generic green skills

Cognitive competencies:

- Innovation skills to identify opportunities and create new strategies to respond to green challenges
- Identifying ways of being part of the solution
- Understand the complexity and interconnectedness of sustainable development issues and challenges

Technological competencies:

- Procurement and selection



Learning objective

Students are expected to:

1. Understand the unsustainability of the fashion sector and identify solutions for developing a closed-loop model for it
2. Recognize how the closed-loop economy can contribute to sustainable development



Format

Small group work and reflexive accounts



Role of teacher

Facilitator



Resources needed

A3 paper, student worksheet, case study



Time required

1.5 hour



Assessment

The assessment will be based on:

1. Students' group presentation.
2. Students' individual assignment.

Suggested teaching and learning sequences

Before the class:

Ask students to

1. Explore ways of dealing with clothes the students don't want to keep anymore in Hong Kong.
2. Read the case study, 'How sustainable fashion contributes to the closed-loop economy' and identify approaches used for achieving sustainable fashion. Ask them to search more information online.
3. Ask your students to refer to the closed-loop economy concept (see the concept information sheet about this) and examine Figure 1, 'Circular economy', presented in the case study. Examine how each case study contributes to different stages of this model.

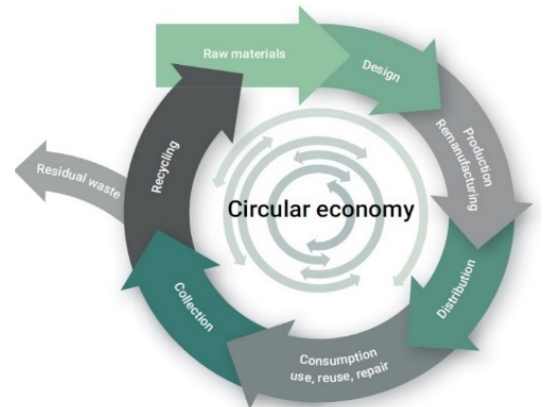


Fig. 1. Circular economy

During the class:

1. Divide students into groups of 4–5 people.
2. Facilitate students' in-group sharing about approaches that can help to achieve sustainable fashion. Each group should identify at least three solutions.
3. Invite students from different groups to share their group work. Sharing should include students' self-reflection on the 'cradle-to-grave' issues in the fashion sector such as no recycling, and the solutions that can contribute to a more sustainable model for the fashion industry.
4. You can use a tree map (Fig. 2) to summarize students' sharing according to different processes in the circular economy which include:
 - a. Raw materials
 - b. Design
 - c. Production/ Remanufacturing
 - d. Distribution
 - e. Consumption (use, reuse, repair)
 - f. Collection
 - g. Recycling

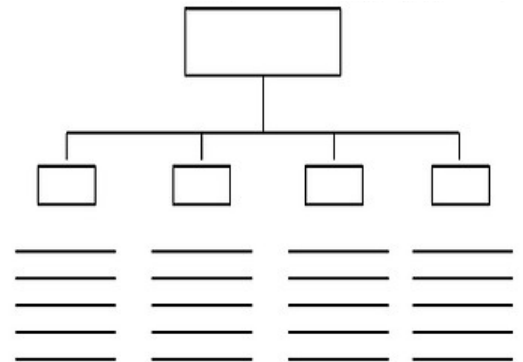


Fig. 2. Tree map template

5. Support students as they design a closed-loop model for the fashion industry. Remind them to refer to the solutions summarized in the tree map.
6. Facilitate students' group presentation and ask other groups to provide comments and/or ask questions. The presentation should introduce a designed closed-loop model and explain how it works to make the fashion sector self-sustaining and abundant like the nature system where 'waste=food'.

After the class:

Students are required to submit a reflection (500–800 words) on the topic of **how the closed-loop economy contributes to sustainable development**. Suggest they write a reflection based on one specific industry of their choice.

Suggested answers/examples for the activities

1. Summary solutions that can help to achieve sustainable fashion.

- a. *Evrnu (social enterprise):*
 - i. Only taking what it gives back. Fibers in this closed-loop system come from only reused materials. And after being used, those recycled fibers are used again and again, until finally turning into **biodegradable waste** and dissolving back into nature.
 - ii. Makes NuCycl fiber from cotton garment waste, which is finer than silk but stronger than cotton, and uses 98 percent less water and 90 percent less carbon emissions than cotton and polyester respectively.
- b. *H&M – Ramping up re-use:*
 - i. Breaking down the materials in bulk and reusing them in new products.
 - ii. Collect discarded clothing and issue purchase vouchers in return
 - iii. Make suppliers accountable for fair working conditions and environmental protection.
 - iv. Use of organic cotton.
- c. *Clothes-mending workshops: 'Fashion Clinic' to help people mend garments (to fight against consumerism)*
- d. *Set up pop-up stalls that provide repair and reshaping services*

2. Design a closed-loop model for the fashion sector and explain how it works.

- a. Systemic problems require systemic solutions. Guide students to think about designing a model for the fashion sector based on the 'waste=food' model, which should include more 'closed loops' to make the system run like nature which is self-sustaining and abundant.
- b. Guide students to design a closed-loop fashion model by referring to the summary of the solutions that covered all the processes in the circular economy (Figure 1). For example, mending garments and old clothes collection could be referred to as a 'consumption' process, whereas garment recycling could be referred to as a 'recycling' process.

Reference:

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- Zhao, Y. (2018). Hongkongers fight 'fast fashion' as clothes-mending workshops and pop-up swaps grow in popularity | Hong Kong Free Press HKFP. Retrieved from <https://www.hongkongfp.com/2018/10/01/hongkongers-fight-fast-fashion-clothes-mending-workshops-pop-swaps-grow-popularity/>