

SDG 14 Future of the Ocean

MM6: Problem to Pitch Marine Plastic Waste



Micro Module 6: Problem to Pitch Marine Plastic Waste

Implementation

Lesson 7: Generating and Remixing Ideas

Subjects: Design, Technology, Maths, Environment, Science, Sustainability

Lesson Title and Summary: Generating and Remixing Ideas

This lesson builds on lesson 6 and enables learners to develop an understanding of the process of generating ideas starting with their personal experience to help them build skills for personal project ideas. Learners develop an understanding of the importance of developing ideas and looking for opportunities to iterate and improve on existing ideas.

Students are also introduced to open source concepts, e.g. iteration and collaboration.

Vocabulary: Agility, Creativity, Disruptive Innovation, Enterprise, Problem Finding and Solving

In this lesson, the learner will:

- explore their own experience as a source of ideas
- feel comfortable with exploring experimental approaches
- develop skills around idea generation
- accommodate variables and limits into design processes
- learn to transfer and apply skills

Materials:

- Worksheet: Ideate Remix activity sheet
- Worksheet: Remix SWOT extension task
- Pens, pencils
- Paper



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Activity Instructions

Activity 1 - Remixing ideas – Rapid Response (20 mins)

1. Organise students into groups of 3.
2. Explain the activity – students will use aspects from their own experience to practice the concept and begin to understand how to develop creative problem solving skills.
3. Working in groups, each person in the group fills in a row on Ideate Remix 1:
 - naming a hobby,
 - what they like about it,
 - the obstacles - what annoys them or stops them from doing it,
 - and how they would change that.

They can make this up – encourage them to be creative, be funny, but make sure that the row entries are related - put on 10 min timer.

Teacher Prompt - Ask the group for input from the grid randomly e.g. "Group one tell me what's written in the second column, row 2." Write their answer on the board.

Repeat three more times until you have something on the board from each of the columns, e.g. group 4 tell me what's written in the column 3, row 1, group 2 tell me what's in column 4, row 2, group 3 tell me what's in the column 2 row 3 – see example:

Hobby	What they like about the hobby	Obstacles to undertaking the hobby	What change would remove the obstacles
Football	Meeting others	Not enough opportunities to meet others	Transport

Tutor models the activity. Ask the groups to start coming up with possibilities for a business, activity or service that include the 4 variables; the more random the variables, the better to push their creativity.

Activity 2 - Remixing ideas Rapid Response 2 (20 mins)

1. Repeat the activity replacing the category headings, which build on lesson 4 outcomes, current product, service or activity, the problem, and the change required.

REFLECTIVE EXERCISE: 3-2-1

- Three things they feel they have learnt from the tasks
- Two things they found most interesting and would like to explore more
- One – their opinion they have about the tasks

Use Post-its or a mentimeter survey - www.mentimeter.com - to gather reflections

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EXTENSION / REDUCTION ACTIVITIES

Reduction: For a shorter class, undertake activities 1 only and use activity 2 in a follow up class focused on marine plastic waste / litter.

Ask students to generate 3 business, enterprise, product or service ideas from the variables used in the class.

Extension: For a longer class, use the work in activity 2 with the Remix SWOT worksheet. Ask the class to undertake the same process for the Idea Remix using one of the businesses, services or activity 1 ideas that has come out of the first part of the lesson. Learners can begin to develop an empathy map for a user of the ideas, products or service that have come out of activity 1.

Learners can also integrate learning from DT 1 Empathy by using the Step into the Problem worksheet to work through the ideas generated.

MEDIA BOX: (materials, online video links, extra resources, case studies etc)

- Video: Ideate (4:04 mins) - <https://www.youtube.com/watch?v=zbLxs6te5to>
- Sustaining Development SDG 14 <https://sustainingdevelopment.com/sdg14-indicators/>
- SDG 14 Life Below Water - What you can do <https://www.youtube.com/watch?v=AJZFBhJwct8&t=0s>
- The Global Ocean SDG14 - An Ocean Opportunity (9:34mins) <https://www.youtube.com/watch?v=rfwymvYHyWk> 2015 but still has useful information

Local Trip / Expertise / Additional Work and Assessments

Learners can begin to research the local organisations and stakeholders involved in the problem of Marine Plastic waste and make connections with them. They may be able to collaborate when they come to develop their service or product in response to the local problem of Marine Plastic Waste.

Learners can link into their local FLAG region to find out about local initiatives or contact BIM to ask about initiatives in their area <https://bim.ie/fisheries/advisory-services/fisheries-local-action-groups-flags/>



This worksheet will help you play with ideas using your own experience and pastimes.

Fill in the boxes - we will then work with the whole group to develop a number of possible ideas.



Do you have a Hobby or Pastime



What is it you like about your hobby



Obstacles to undrtaking your hobby



What would make it easier to do your hobby

Hobby

Likes

Obstacles

Change

Hobby

Likes

Obstacles

Change



MM6: L7WS Remix 2 SWOT Analysis

Name _____

Date _____

This worksheet will help you play with ideas using a SWOT analysis. Fill in the boxes for three different ideas for your teams' project.



Purpose



Strengths



Weaknesses



Users

Purpose

Strengths

Weaknesses

Users

Purpose

Strengths

Weaknesses

Users