New Approach of Collaboration with Industry

Presenter: Chenchen Shen (Miraikan)  Kao & Miraikan Collaboration Team

c-shen@miraikan.jst.go.jp

Introduction

Engineers from an industry are in the forefront. Miraikan is collaborating with Kao, a private enterprise, to develop and provide science communication activities for children education. This collaboration started from finding common goals and discussing the possible plans together. As our first step, Miraikan and Kao agreed to provide talk shows with three engineers from the enterprise. In this poster, we introduce our achievement in the first step of our collaboration.

Goals for the activity

Engage a private enterprise to do science communication activities through visualizing Kao engineers’ ideas behind the daily necessities.

Engage children to find connection between daily life and science and then think how individuals’ behavior is affecting the Earth environment and then take action.

Talk show with engineers (First step activity)

What is a clean river?

Topic: To make sure that detergent discharged into rivers is eco-friendly, its biodegradability & eco-toxicity is assessed through lab experiments and aquarium monitoring.

How to keep skin beautiful?

Topic: To keep skin’s beauty, a new detergent, named EC, was designed to clean well, but low irritation to skin.

Developed surfactant molecules form a cluster and become difficult to be absorbed by skin.

A single surfactant molecule which is harmful to skin can be easily absorbed by skin.

Opinions and questions from audience

Where will the surfactant go after it is absorbed by skin?

It is necessary to develop local products according to different countries culture and needs.

How long should we wash our skin?

What is a clean river?

A river without trash or detergent.

A river without detergent.

Water is clear. People can swim in it.

Firebugs shine near by.

How can we keep rivers clean?

Make clothes that are not easily dirtied.

Invent a machine that can remove bad substances.

Increase water bill, so that people will use less water.

Money. Print a handsome face on me.

Print people's feelings.

Print make-up on my face when I'm sleeping.

Print answers of school tests.

If you could print anything, what would you print?

I hope exit can be printed if I get lost!

I want to print food on the plate.

Print a handsome face on me.

Print Mona Lisa on the wall.

Will the color fade if a picture printed in the water-based ink gets wet with rain?

Print make-up on my face when I'm sleeping.

Print Mona Lisa on the wall.

If you could print anything, what do you want to print?

A river without eutrophication.

A river without trash or detergent.

A river with healthy fish living in it.

Transparent.

A photograph was printed in normal water-based ink on the film.

A photograph was printed in water-based ink on the film with Nano dispersion technology.

Next step!

The theme will be the life cycle of products. With the help of Kao, we can unveil how each step impacts the environment and thus reflects our daily life’s behavior as consumers. The workshops are expected to be promoted via industry’s network.