# **Cambodia, Tiredness of Muscle**

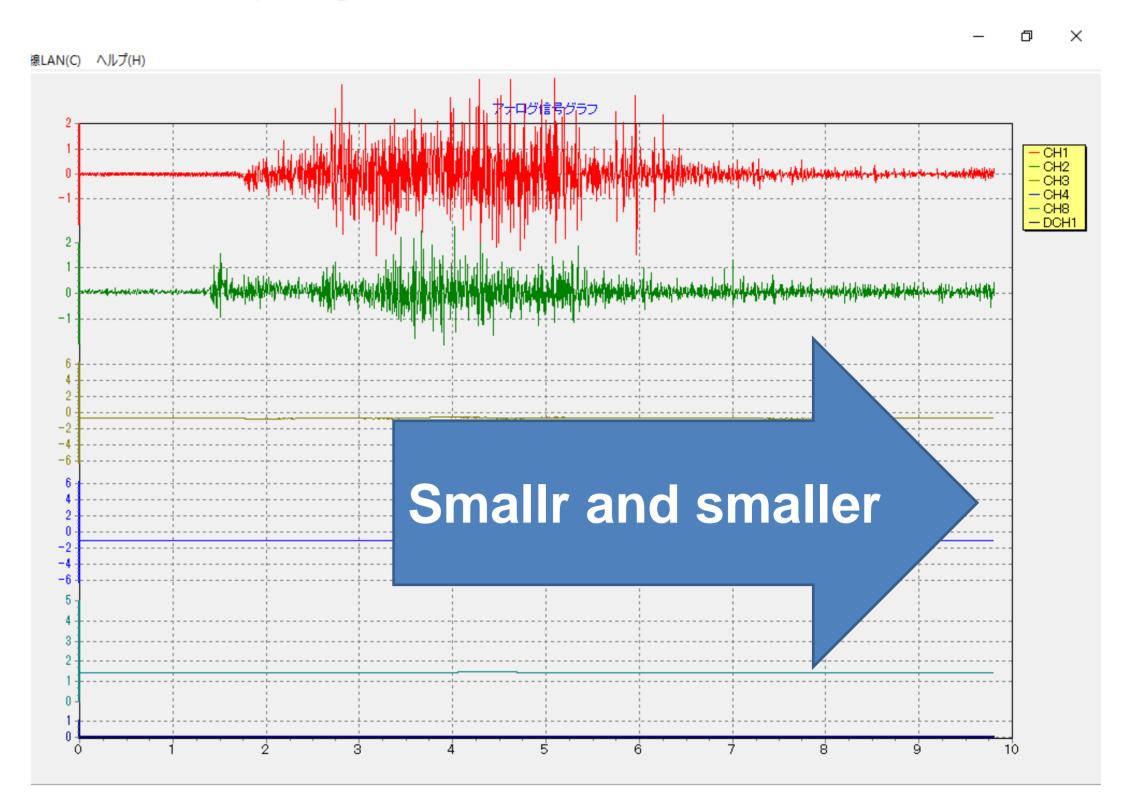
Unit U : Kazumasa TAKAHASHI, Ryohei Abe, Hikaru YOKOKURA, Shunsuke TANAKA(Engineering, Education) Royal University of Phnom Penh Lvea High School 29 February - 8 March 2016

# Science Lesson ~Tiredness~

 We introduced Japanese culture.
First, we showed four seasons in japan using a lot of pictures. Most responsive season is winter because Cambodia does not have winter and Cambodian has never seen snow.
And we explained that Japanese has SAMURAI spirits showing Japanese



#### **Electromyograph**





#### BUDO pictures like KENDO.



③Last day, we played each traditional game. We introduced Demon shaking hands, DARUMA is rolling and Getting chair game. Cambodian students taught us ancient material arts and they wore traditional wearing. We felt different culture and our bonds is deepened. The good news is that Cambodian students saw us off.

(2) We taught "tiredness of muscle," using a electromyography which can see the waves of muscle energy. One subject keep bend arm with maximum power, the other person keep holding down the arm. Then we measured the changing energy of muscle. The machine captures the signal of measured point.



### Questionnaire -

Some students said, "I'm very happy because I can **improve my knowledge**" and "I want you to teach me again about what I can **make by myself** and **use at home** next year". They became interested in organic solar battery and were satisfied in our lesson.

In Cambodia, it's difficult for schools to get equipment for experiment. I felt that Cambodia needs system of getting equipment easily and the experiment should be more easier preparing, for example using flowers. Those are necessary to improve science education. At last, I'm happy if many students become to study for their and

# **Extra-curricular activities**

# Killing field

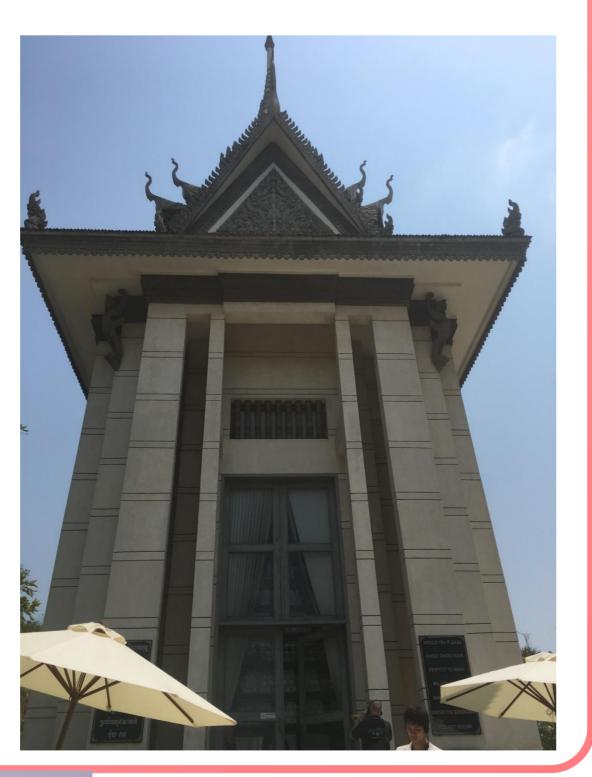
In 1975 administration of Pol Pot killed 3millionCambodian people corresponded to one third of the population. Killing field is the ruins of execution ground that have been genocide. There are the remains and graves of people who were executed.

Also tools that was used in executions

are on display while at that time.

This picture is memorial monument for the victims. This monument is a Symbol that dose not cause tragedy twice again.

We have been shocked to see these Exhibits. And we think that it is Important for us to understand the



#### Olympic center

Olympic Center is a historic building near the Central Market. Near the Olympic Center, there is a place where you can volleyball and basketball and futsal. We are there in, enjoyed the local people and the sport of Cambodia. I was very excited to do the sport with country of people who differ from. It was also a volleyball game, but we have lost the children of the age of much of our local. They were very strong. The reason is, they will include

that are familiar to the sport from the small time. In Cambodia, it does not have Japan's everyone have such portable game machine and so on. So we play sports that do not take the most money. Then I want to win when I came to Cambodia.



history of foreign country. We should Inherit the feeling from there to posterity.

# Achievements and problem

First our lesson is not good for Cambodian students. Why? First we use "fatigue" in our lesson's topic. But this word is not used by Cambodian students. So they couldn't understand our topic after finish class. Second this topic is not famous for Cambodian student. But we use terminology in class. Of course we explain this word's meaning and characteristic. However they could not well understood. So first questionnaire result is not good. And they said that our lesson is not clear. So we changed our power point for Cambodian can well understand. First our lesson's topic changed. Fatigue change tiredness of muscle. Second problem, we use one more material. That is periodic table of elements. After changing our lesson's level change very high. So Cambodian students could well understood after our lesson changed. Cambodian said this lesson is clear.