

## An earth science class at Thailand science high school based on the natural disasters (earthquakes and active volcanoes)

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KVIS (Kamnoetvidya Science Academy) was founded in 2013 (the school started in 2015), as a scientifically oriented high school for gifted students in Thailand. The school is supported by the RASA foundation managed by the PTT Group, a leading oil and gas company in Thailand. KVIS is built on a vast campus in the PTT owned area of next to VISTEC (a graduate school for science and technology). All students live in dormitories in a same campus and serve free meals in a canteen every day. The school fee is also free. I hired at this school as a visiting teacher and worked two months, August to September 2017. The classes are taught in English as an official language except the Thai language class. Many foreign staffs also teach in this school as visiting teachers for most of the subjects. The earth science class has four periods (50 minute) in a week, there are four classes at 12th grade and each class has 18 students. So I had to teach  $50\text{min} \times 4 \times 4 = 16$  classes in a week. In Thailand, I heard that there are a few attempts to teach earth science systematically in senior even junior high school. So I had a hard time to arrange the curriculum of earth science for only two months. I limited the contents of our earth science class as geology and geophysics related. Therefore, the contents consist of, in order, minerals, rocks, geological formations, active volcano, earthquakes, plate tectonics and geo-history. The curriculum is divided two courses; the Basic course and the Advanced course. In the Advanced course we treats some high level contents including complex sciences. Also, the lack of active volcanoes and local earthquakes in Thailand, although a lot of flood disasters, causes a geographical problem for earth science teaching. We introduced many experiences and cases about volcanic eruptions and earthquakes, particularly in Japan and also in the world. Also, we try to use real rocks or fossils in the vicinity of our school to show the real materials in the classroom. This is my policy to teach Geo-science in a classroom. Moreover, many experiments or exercise based classes are introduced, which are now developing in this country. My classes were recorded by Dr. Janjira Maneesan, a counterpart chemistry teacher of me at KVIS. The contents are supervised by Dr.Thanit Pewnim, a senior adviser of KVIS. Availability of this method is checking now to use the final exam. results. In my presentation, I will show the details of our curriculum and the reactions of the students. My guest teaching will continue this summer, too.

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