How to observe the characteristics of the geosystems in the school activities with utilize regional geology above Nagamachi-Rifu fault

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Rifu town is located in centre of Miyagi prefecture which stands around one of the most famous enormous active fault Nagamachi-Rifu lines. However there are few or no tracing researches in contrast Sendai city, since it has less population and wider spread wetlands.

Therefore I constructed the science club activity for (1) seeking fault line(s) with topographic land maps and (2) investigate boling core sample soils(Asia air survey co.LTD. 1983) that was brought in our school founded.

(1) Estimate of displacement of the faults on foot observation

In order to seek the unknown fault line in Rifu area, at first it was needed to estimate on the maps("Sendai east-north", "Matsushima" 1:25,000 Scale Topographic Maps and Active Faults in Urban Area of Map(Sendai), Geographical Survey Institute of Japan). After that estimation, walked over the region with club students to observe slopes which was occurred by the faults activation and recorded on the maps.

By observant slope gaps, there has a possibilities to have 3 or 4 fault lines that are located parallel to the known activate faults.

(2) Investigate of the boling core samples above the fault(s)

We investigated 6 columnar-shaped boling core samples which were excavated when the school has been built. The maximum depth of the samples are over 20m, some are new filled sands over original ash tephra and pumice from Adachi-Medeshima volcanoes.

In the club activities, we described column diagram of sediments and discussed the sediment circumstances by the sediments grain observation, however, it was impossible to describe the sediment's origin of exact volcano(es).

I would like to report our activities in the school and also discuss the physical influences to the structures on their sediments.

Keywords: geologic column, Nagamachi-Rifu Fault, Boling core analysis, soil exploration, Adachi-Medeshima pumice



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