

Educational support from geopark: “Integrated Geography” and “Basic Earth Science”

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Can geoparks in Japan support the Earth and planetary science education of high school? The answer is "Yes".

Geopark's support to high school has a big meaning for geopark. Support from geopark is useful for high school. First, I will describe the curriculum of “Basic Earth Science” and “Integrated Geography”, then discuss the benefits to geopark and the merits to high school. The curriculum will be described based on the New Study Guidelines (draft) indicated on February 14, 2018. Also, I referred to the current textbooks of “Basic Earth Science” and "Geography A".

<Curriculum of “Basic Earth Science”, “Integrated Geography” and supportable elements by geopark>

Regarding the following contents, Geopark has good teaching materials and the theme of exploration activities is plentiful. For example, the movement of the plate, the volcanic activity and the earthquake in "the state of the earth", paleontology written in "the changing earth", the benefits and disasters caused by the natural environment of "the environment of the earth", etc.

“Integrated Geography” : The contents of “Integrated Geography” can be roughly divided into three. "Contemporary world seen from maps and geographic information systems" "international understanding and international cooperation" "sustainable community development". Among these, "sustainable community development" is further divided into "Natural environment and disaster prevention", "Survey of living area and regional perspective". "Natural environment and disaster prevention" acquire knowledge on natural disasters, preparation and response to it, and skills to read hazard maps in the task exploration activities. Many geoparks in Japan have many themes with natural disasters as their main theme (Toya Caldera and Usu Volcano Unesco Global Geopark, Sanriku Geopark, etc.), and in the field of "natural environment and disaster prevention" geoparks can support a lot. Also, in exploring the issue of "survey of living areas and regional prospects", we are considering multifaceted consideration of the formation and transformation of the region, and the creation of a sustainable community. Geopark activities are aimed at creating a sustainable community. Therefore, the geopark itself becomes a teaching material of "survey of living area and regional perspective", and many support is possible.

<Support for “Basic Earth Science” and “Integrated Geography” : Benefits of geopark>

Supporting classes of “Basic Earth Science” and “Integrated Geography” at high schools is one of geopark's three activities (conservation, education, sustainable development of the region). Besides this, geopark has three merits in supporting classes of “Basic Earth Science” and “Integrated Geography” .

First, it has the effect of creating human resources supporting the geopark. When "explorative learning" of

“Basic Earth Science” and “Integrated Geography” is carried out, there is a high possibility that human resources who are interested in geopark activities will be born. Secondly, the inquiry activities of “Integrated Geography” can contribute directly to regional revitalization. Thirdly, educational support for “Basic Earth Science” and “Integrated Geography” is also useful for disaster prevention and reduction. Therefore, there is a possibility of creating human resources related to disaster prevention and reduction.

<Support for “Basic Earth Science” , “Integrated Geography” : Benefits of High School>

There are three merits for high school to support “Basic Earth Science” and “Integrated Geography” from geoparks.

First, it is possible to utilize geopark experts and university faculty to teach. Geopark officials have many people who can conduct classes through dialogue and group activities. This is because they regularly teach guides and are influenced by NHK's popular program "Bra-Tamori" that progresses interactively. Secondly, it becomes possible to comprehensively study earth planetary science. It is difficult to learn earth scientific phenomena from the viewpoint of comprehensive earth and planetary science when learning “Basic Earth Science” and “Integrated Geography” alone. Thirdly, it is possible to find material of exploratory activity in the geopark.

As mentioned above, support for “Basic Earth Science” and “Integrated Geography” has merits both on the geopark side and high school side. Therefore, it is possible to support “Basic Earth Science” and “Integrated Geography” from geopark.

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