



enormous increases in the rate of use of resources and energy and production of technological wastes. This change has so far mainly occurred in the developed nations and is associated with intense consumerism and increase in material standard of living. The amount of carbon dioxide produced by the human population every day, for example, is about 12 000 times what it was when farming began. One tenth of this increase is directly the result of the growth in population, while the rest is due mainly to the use of fossil fuels in manufacturing, transportation and the production of electricity.

Thus, in our opinion, the conclusion of the given article can be twofold. On the one hand, it is too difficult in our days to make people understand that they must take care of nature and the lands they live on. We think, the solution of ecological problems in Australia is to find another ways of using natural resources and make human activity safer for animals, plants and lands. On the other hand, getting knowledge on the problem in the language of native-speakers not only familiarizes a person with it, but encourages him to master this language, to know more about the country and people, who live in it.

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### **PRIMARY SCHOOL AGE AND FEATURES OF ECOLOGICAL CULTURE**

The natural environment encompasses all living beings and non-living things occurring naturally on the Earth or some region thereof. It actualizes such phenomenon as ecological culture as culture of all human activities connected with knowledge, development and transformation of nature.

Ecological culture consists of knowledge and deep understanding of environmental standards, development of a sense of civic responsibility for the nature of environmental activities and direct participation in their implementation [1, c. 123].

Ecological culture is a part of world culture, which is characterised by deep and general awareness of the importance of contemporary environmental problems in the life, learning and development of



peoples. School should educate students in the spirit of love for Mother Nature, and environment.

A child who comes to the first grade has not yet any strong opinions, beliefs and interests. Therefore, the mission of an educator is to form ecological thinking and culture, to teach younger generations how to live in harmony with nature, to achieve that sense of personal responsibility for life on the planet.

Learning environment should be active, interesting, and rational. Moreover, in educational material should not be a component that children are unable to perceive properly.

V. O. Sukhomlynsky thought that nature itself does not develop or teach. Leaving a baby alone with her is enough to have a hope that it will become intelligent and moral. Only active interaction with nature can bring the best human qualities.

Ecological cultures of juniors include:

- knowledge about the interrelation relationships in nature and human consciousness as its part;
- understanding the need to protect the environment;
- ability and skills of positive influence on nature;
- understanding the nature of aesthetic value;
- negative attitude of the children to any damaging environmental effect.

Each person forms deliberate and careful attitude to the nature in the context of ecological culture that is why broad ecological knowledge should be formed since childhood. Knowledge of environmental regulations, laws of nature, dating with the mysterious world of animals, plants, the peculiarities of their behaviour will enable a personal responsibility for the future of the nature.

The goal of ecological culture education is the formation of scientific knowledge, attitudes, beliefs, providing a foundation of responsible attitudes towards the environment. The success of environmental education depends on a number of educational requirements. The implementation of environmental education actualizes a complex of methodological tools and techniques to the study of nature; any communication with it affects feelings and consciousness.

Such games as quizzes, tours, traditional signs, environmental research have an impact, because they form as an essential condition for effective formation of ecological culture of the junior students. Success of environmental education depends largely on consideration of a number of educational requirements. The aspects of conditions of effective



learning of personal environmental awareness and education based on ecological culture are still under discussion. According to teachers, the main condition for the successful formation of ecological culture of pupils is a skill mix of environmental educational material content of the practical activities of students in the natural environment.

Psychologists note that at different stages of their lives in different ways students understand and perceive the environment. In addition, each student has his other inherent features of cognitive activity, emotional life, liberty character behaviour, etc. Every pupil needs an individual approach based on the study and incorporation of psychological features of his personality [2, c. 85].

Therefore, to achieve positive results in environmental education it is important to note age and individual characteristics, traits, attitudes to learning needs and abilities of each student. Only developing environmental culture the teacher will be able to provide full and conscious perception of coherent educational material.

Primary school opens enormous opportunities for this, because of foundation of intelligence, the thinking structure, natural curiosity of children, and sincere interest in the environment.

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#### **DETERMINATION OF THE CONCENTRATION OF CHITOSAN IN ITS ACIDIC SOLUTIONS**

3. Chitosan is the second most common natural polysaccharide after cellulose on earth. It is the main constituent of the skeleton system of the cells in crawfish shells, cell structures of fungi and bacteria. Chitosan is composed of  $\beta(1\rightarrow4)$ -linked 2-amino-2-deoxy- $\beta$ -D-glucopyranose and is easily derived by N-deacetylation [2]. It is widely used in medicine, pharmaceuticals, agriculture, food, textile and other types of industries. Chitosan is known for its unique properties such as biocompatibility, forming complex compounds with metal ions, regenerative influence on the body tissues. Besides that, it appears to be non-toxic, fungistatic, hemostatic, and antibacterial [3]. The effective usage of chitosan requires reliable and accurate methods