



## IMPROVING THE EFFICIENCY OF BOTANY SCIENCE TEACHING BASED ON ADVANCED FOREIGN EXPERIENCES.

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Annotation: International programs and researches on assessment of students' knowledge level Studying international programs and researches on assessment of students' knowledge level in the field of natural sciences and applying them to practice is an urgent topic in improving the quality of education. . In this article, we talk about "Increasing the effectiveness of teaching botany based on advanced foreign experiences".

Key words: STEAM, TIMSS, PISA, Smart education, information and communication.

The content of biology education of developed foreign countries USA, Great Britain, Germany, Finland, South Korea, China, Russia, Sweden. The essence of STEAM education. [1-4] International programs and researches on the assessment of students' knowledge level International programs and researches on the assessment of students' knowledge level in the field of natural sciences: TIMSS, PISA. TIMSS (Trends in Mathematics and Science Study) is an international monitoring study of the quality of knowledge acquired by students of the 4th and 8th grades in natural sciences, including biology, ecology, and its content. PISA (Program for International Student Assessment) is the essence of the international program for assessing the literacy of 15-year-old students in reading and natural sciences. Trends and innovations in the development of biological science, state educational standards based on the competence approach in biological science, a review of the curriculum in the science of herbology. Ways to form the basis and competences related to science in the teaching of biology. "Smart education" and its possibilities The role of information and communication technologies in the teaching of biological science is extremely large. [5-8] Electronic resources aimed at increasing the effectiveness of education in teaching biological science: web resources, educational systems , the importance of using multimedia applications. "Smart education" concept, content, possibilities. The content of biology education of developed foreign countries USA, Great Britain, Germany, Finland, South Korea, China, Russia, Sweden. The essence of STEAM education. Studying the content of questions used in previous years in international programs and researches for assessing the level of knowledge of students, analyzing them and determining the possibilities of using them in the educational process.

Developmental education in the teaching of biology

Analysis of the essence of developmental education, its specific features, priority principles. Analysis of SMART objectives, taxonomy of learning objectives, taxonomy of learning tasks. Selection and creation of educational tasks aimed at the development of the student's personality. "Smart education" and its possibilities. The role of information and communication technologies in the teaching of biology. Importance of using electronic

resources aimed at improving educational efficiency in teaching biology: web resources, educational systems, multimedia applications. "Smart education" concept, content, possibilities. Trends and innovations in the development of biological science. Directions of the development of biological science. Acquaintance with innovations and research on the application of science to technology and production. Scientific research carried out in natural biological and ecological research institutes of the RFA. [9-10]

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