Finding and "extracting" gifted children in a particular field of science has been one of the difficult problems and to develop new methods or to improve the existing are still considered relevant. At the same time, an important part of the requirements imposed by such methods is the creation of a system for working with gifted children. The Olympiad is a method that has been tested for centuries and performs all the necessary functions related to the work with gifted children: to find talented students, to raise the knowledge of teachers, parents, leaders and chairmen of the Olympiad, to motivate future geniuses, to reward them for worthy knowledge, to draw the interest of others surrounding towards certain subjects and etc.

Modern chemical Olympiads are significantly different from the Olympiads of the last century, even 10 years ago the level of tasks and the volume of material were several times smaller than now. In addition to the national Olympiads, the International Mendeleev Chemistry Olympiad (IMChO), the International Chemistry Olympiad (IChO) and various regional, commemorative and even commercial Olympiads among schoolchildren in chemistry are distinguished. These Olympiads have already crossed the half-century of life and work very reliably. Here evaluated students’ both theoretical knowledge and practical experience. International chemical Olympiads every year take place in different countries and thus this event performs a culture-educational, educational and touristic role and unites young people from all over the world.

Further in higher education students check their knowledge at the state level Olympiads. Unfortunately, student chemistry Olympiads are not as developed as mathematical Olympiads. In I.R. Iran, annually held the International Student Olympiad in Chemistry, which involves representatives of only 4 states (!), there are also Internet-Olympiads, many of which are commercial. But the prospects in the Internet Olympiad are high, since the geography of the Olympiad will be so extensive, children only in Antarctica cannot participate, as there is no Internet. Less expenses in organization of the Olympiad also stimulate this variety. Internet education is now very popular, but in the case of the Olympiad, we will lose publicity and openness both in the process of solving problems, and in evaluating them. Besides, it would be impossible to conduct practical tasks, which are an indispensable part of this magic subject through internet.

The current tasks in the chemical Olympiads are more interdisciplinary. Complex questions in them relate to a large extent with other natural objects, such as physics, biology, geology, geography, mathematics, thereby differing from their inter disciplinary predecessors, which are inferior to modern assignments for the ability to develop the creativity and outlook of students.

Particular attention is drawn to individual or team Olympiads in several subjects, often natural sciences. It seems that the differentiation between the sciences has gone very deep, but still possessing good knowledge of the natural sciences for schoolchildren who have not yet reached the boundaries of an acute division of sciences is not difficult. In future and even now, such specialists are much appreciated, because a physicist-chemist is stronger than a simple chemist, not two, but three times.

The last and very "fashionable" kind of tasks for chemical Olympiads are situational tasks that are very closely related to everyday life and are mainly used for beginners in this subject to stimulate their interest in the new discipline. It is possible to use such tasks in Student Olympiads, even in university exams. This will increase a practicality of the Olympiad, gives a chance to get a lot of experience required in real life, at work.