Description of the National Biology Olympiad in Hungary (NBOH)

Preamble

Hungary was accepted as a full member of IBO in 2009. In this case our country send participants from 2010. Of course at this time there have been existing already some biology competitions established earlier. However the syllabuses of these competitions had really strong emphasis on descriptive biology and having used mostly knowledge based questions (e.g. recognition of several hundreds of living organisms etc.) in the test papers. Furthermore the final round of the most popular National High School Biology Competition (NHSBC) is usually organized at the end of April or in May which is thought to be too late for the final selection and preparation process.

In this case the State Secretary of Public Education (in the Ministry of Education and Culture) requested the National Association of Hungarian Biology Teachers (NAHBT) in the autumn of 2008 to establish and operate an efficient own National Biology Olympiad with the main purpose of selection and prepare the participants for the IBO. Nevertheless the accepted Rules and the Selection Procedure of the NBO was compiled in the way that participants who having acheived good results in the formerly established competitions have had a visible advantage at the NBO as well. Even it is a *compulsory condition for becoming IBO team member to be invited into the final round of National High School Biology Competition*. Usually the IBO team members are amongst the top 10 ranked students at the NHSBC, as well. Despite of the fact that the two competitions operate separetely, there has been established a very strong cooperation among the Committees of NHSBC and NBO.

Name of the country

Hungary

Name of the NBO

National Biology Olympiad in Hungary (NBOH)

Established

2009

Website URL

http://olimpia .mabite.info
http://kozepiskolas.mabite.info

Website language

Hungarian

Olympiad promotion

- The promotion is in connection with the other nationwide biology/science/environmental studies competitions
    - All the student and teacher who participate at one of the nationwide biology competitions are informed about the possibility to apply for NBO as well (more than 6000 students takes part yearly in these competitions)
    - The National Association of Hungarian Biology Teachers (NAHBT) send emails and fax to cca. 80-90 top ranked schools to invite their students to participate in the NBO as well
    - Moreover the NAHBT invite the top 30 ranked students at all of the former years' biology competitions in a personal electronic or hard copy mail – it means usually cca. 80-120 top ranked students' personal invitation
- The application process is going through an open website – everyone (who fulfills the requirements of IBO) are invited to apply

Organization, structure, categories and rounds

- One category
- Main organizers:
  - National Association of Hungarian Biology Teachers (NAHBT) - organizing activities
  - Institute of Biology at the Science University of Szeged (SZTE) – scientific committee
- There are three rounds
  - 1st round: 4 test papers at SZTE (of which the best 3 is counted) – open for everyone
  - 2nd round: 1 theoretical test and 2 days of practical tests – the best 12-15 students of 1st round are invited
  - final round: 1 day of practical tests – the best 6-7 students of 2nd round are invited
- All (and in this way the final) round is organized by the representatives of Institution of Biology at Science University of Szeged
- Counting results:
  - 1st round: - **final $t_{1st\ round}$**
    t points (former results in other national science competitions) + t points (theoretical tests)
  - 2nd round - **final $t_{2nd\ round}$**
    final $t_{1st\ round}$ + t points of (2nd round theoretical test + 2nd round practical tests)
  - 3rd round - **final $t_{3rd\ round}$**
    final $t_{2nd\ round}$ + t points of (3rd round practical tests)
- Members of the IBO team:
  - the top 4 students based on **final $t_{3rd\ round}$**
  - to be invited for the final round of the National High School Biology Competition in April/May is compulsory condition

Tests

The theoretical tests used in NBO resemble the IBO tests. These tests usually takes 120 or 150 minutes long and consist of IBO "A" or "B" type questions. The tests are constructed by the representatives of Institute of Biology at Science University of Szeged and the representatives of NAHBT. All the theoretical tests are written under normal exam circumstances in one of the lecture hall of the University.
The marking is made by the developers of the questions. The marked test papers can be examined by the applicants and moderation is possible.
The practical exams usually also resemble the ones at the IBO. They are 90-120 minutes long and consist of microscopic and dissection exercises, measurements, computations and graph plotting tasks. These tests are designed, prepared, operated and marked by several people (usually 10-12 experts are present in practical rounds). Experts are coming from the Faculty of Medicine and Institute of Biology at the Science University of Szeged, from the NAHBT and moreover from the Biological Research Center of Hungarian Academy of Sciences. The practical tasks usually are hold in a high school laboratory which really fits the needs of a high school competition. All of the practical exams are carried out in a secure way, which means, that students compete not with their names, but with a secret code. These codes are deciphered after final marking only at the end of the exam.

Student training

Number of days	NBO	IBO
At home:	individually variable	usually 3-4 days
At school:	depends on school	no such training
At special training camp:	no such training	8 days (4 weekends)
Bio summer camp	no such training	no such training
University	no such training	2 days
somewhere else	individually variable	individually variable

Study materials

- There is no official preparation material for NBO.
- 4 Campbell books are available for the final 4 team members under the preparation period.
- There are 6 types of standard laboratory practical (based on NCBE-UK and BIO-RAD exercises) manual developed for NBO 2nd round and these are used also in the preparation period for the IBO.
- There are some propagation lecture ppt-s available at the homepage of the NAHBT.
- We also use in the preparation some web based experiments (e.g.: Marieb-Hoehn Human Anatomy and Physiology Physioex ©experiments).
- Of course we use materials of former IBOs.

Awarding of students, prizes

There are no special prizes, we give the students only a certificate about their ranks and results.

Media coverage

- The mass media interested in only at the point of arriving back from the IBO. Usually we send the results and a short summary to the official Hungarian News agency (MTI) which disseminates this text. In this case, from year to year our results have a great nationwide publicity. Usually there are some interviews with students/coordinators at the news, as well.
- In every year the Prime Minister give prizes and grants for students who were best at some of the Science Olympiad (e.g.: IChO, IPhO, IBO, IMO, etc.) This venue also have a great publicity.
- Depending on the city the students are from, their local media is also interested in the results.

Support / resources

- Our Main Sponsor is: Institute of Biology at the Science University of Szeged – with lectures, lecture rooms, laboratory equipments, practical test facilities, etc.
- Usually we have some EU grant finacing NBO and preparation work
- Hungarian Governement is also a financial supporter (some of the preparation expenses, air ticket, insurance, participating fee, member fee, etc.)

IBO coordinator

Sandor BAN – chair
National Association of Hungarian Biology Teachers (MABITE)
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Official institution

The coordinator is appointed by the Deputy State Secretary of Public Education – at the Ministry of Human Resources.
Dr. Zoltan GLOVICZKY
H-1055 Budapest
Szalay u. 10-14.

Statistics over the year
Because of the special situation with biology competitions in the country we described in the Preamble it is difficult to give an estimate.
Usually cca. 6000 students from 130-150 schools participate at the National High School Biology Competition, which is the entrance step of NBO. In this case we can say that 7,5 % of students of their year are involved, and 33% of the schools.
In the direct NBO process usually the best 80-120 students are involved from more than 30 high schools. This is cc.a 0,3% of the students in a given year and cca. 6% of the Hungarian nHigh Schools.

Standard school year
From:
September **(**Month of the school year beginning)
To
June **(**Month of the school year ending):

Biology hours/week

Minimum: 2 Maximum: 5
(Common for the students going for the NBO).

Logo & Files
no logo, no leaflets (under designing)

Logo
no logo existing (under designing)

Poster
no poster

Leaflet
no leaflet (under designing)