The Regulations of the International Young Naturalists' Tournament 2013

I. Young Naturalists' Tournament

The International Young Naturalists' Tournament (hereinafter the *IYNT*) is a team competition for students of secondary schools aged 12 to 16 in their ability to solve the problems of the natural sciences, convincingly present their solutions, and defend them in scientific discussions called Science Fights (*SF.*)

II. International Organizing Committee

The IYNT is governed by the International Organizing Committee (*IOC*) established by the founding countries of the IYNT.

III. Participants of the IYNT

National teams

1. The participating teams are representing the countries wishing to take part at the IYNT.

2. The participating teams join the IYNT through an application.

3. Any invited country is represented by one team.

4. The countries responsible for the organization of the IYNT have the right to nominate two teams.

5. For all other countries, the IOC has the right to allow a second team per country.

The membership of the teams

6. A team is composed of six secondary school students. All team members must either be citizens of the country they represent, or be enrolled as students in a school of the country they represent. The students who turn the age of 16 years before the closing day of the IYNT cannot be participants. The IOC may allow participation of teams of five or four students. The composition of the team cannot be changed during the Tournament. The team is headed by a Captain who is the official representative of the team during the IYNT.

7. The team is accompanied by two team leaders, and one of them should be qualified to work in the Jury.

8. The teams that have registered on the webpage of the IYNT but not included into the list of official participants, can attend the IYNT out of the competition, if there is available accommodation. The IOC decides to allow such teams to attend the event and about the conditions of such a participation.

IV. Problems of the IYNT

Main problems

1. The main problems of the IYNT are theoretical and experimental problems in natural sciences (astronomy, biology, geography, physics, chemistry, ecology) and problems in mathematics. The set of main problems is published no later than one month prior to the opening of the tournament.

2. The main problems of the IYNT may be used in any competition that could lead to selection of a national team for the IYNT.

Additional problems

3. The additional problems of the IYNT are not published in advance and are offered to the teams directly in the course of the Science Fights.

V. Team registration

1. In order to participate at the IYNT, each team must register on the webpage of the Tournament and submit their filled registration form to the IOC.

2. Each team is then assigned by the IOC with their identification number (ID.) The ID of the team will be used in all official IYNT forms and protocols.

3. To confirm their participation in the Tournament, the team has to fulfill additional requirements (Appendix).

4. When all these requirements are fulfilled, the team is recognized official participant of the IYNT and is officially invited.

VI. Jury

1. The international scientific Jury is nominated by the IOC and consists of independent experts experienced in judging intellectual competitions for students.

2. The groups of jurors are formed for the Science Fights of the IYNT (Jury of the SFs, *JSF.*) Each group consists of 4 experts or more. When possible, the personal composition of each group should not change.

3. One of the independent experts acts as a chairperson of Science Fights.

4. Three team leaders, one from each team, work in the Jury in the groups where their teams do not compete. The IOC distributes the jurors according so that the team leaders:

a) participate in a specific JSF no more than once;

b) cannot participate in the JSF in the Fights where their teams participate;

c) do not meet with other team leaders in the JSFs more than once;

d) should not, when possible, grade the same team more than twice.

5. Team leaders are informed about their participation in a specific JSF immediately prior to the Science Fight.

VII. The agenda of the IYNT

1. The IYNT is carried out during 5 to ten days in a period determined by the IOC (from April to July.)

2. Each team presents itself in a short performance at the Opening Ceremony. The Jury evaluates the presentation of the teams (see Appendix.)

3. All team compete in the rounds called Science Fights in groups of three or two teams. If the total number of teams is proportional to three, all groups for the selective SFs consist of three teams. Otherwise, a number of groups will consist of two teams. The distribution of teams among the groups is by the lot (see Appendix.)

4. The number of selective Science Fights and the sets of problems offered for these SFs are decided by the IOC for the specific tournament (see Appendix.)

5. Nine teams which have the best results after the Selective SFs take part in the Semi-Final SF.

6. Three or four best teams participate in the Final SF.

7. During the IYNT, additional contests in various nominations are held. Such contests will not influence the rating of the teams (see Appendix.)

8. The host country provides a cultural program for the participants of the IYNT.

VIII. Science Fight regulations

1. Before the beginning of a SF, the Jury and the teams are introduced.

2. In the course of the SF the members of a team communicate only with each other. They are not allowed to use mobile data transfer and the internet. When needed, the organizers may provide laptop computers and other equipment.

3. In the groups of three teams, the SF is carried out in three Stages. In each Stage, each team plays one of the three roles: the Reporter, the Opponent, and the Reviewer. After each Stage, the roles are reassigned in the following order: the Reporter goes on to become Reviewer; the Opponent goes on to become Reporter; the Reviewer goes on to become Opponent.

4. In the groups of two teams, the SF is carried out in two Stages. In the first Stage, one team acts as the Reporter, and the second team is divided into two subgroups that take the role of the Opponent and the Reviewer, respectfully. In the second Stage, the teams change their roles.

5. In the groups of four teams, the SF is carried out in four Stages. There is a passive role of the Observer in such Fights. After each Stage, the roles are reassigned in the following order: the Reporter goes on to be the Observer, the Opponent goes on to be the Reporter, the Reviewer goes on to be the Opponent, and the Observer goes on to be the Reviewer.

6. When one of the team members takes to the floor as Reporter, Opponent or Reviewer, all other team members may work as assistants, offer technical support to the presenter, pass notes with short commentaries and if allowed by the chairperson can make short remarks.

7. The Observer does not take part in a Stage. The chairperson can allow the Observer to make a short remark after the grading is completed.

8. During one Science Fight each team member may take the floor only once in one role.

9. Throughout all Selective Fights, each team member can take the floor only a limited number of times in each role (see Appendix.)

10. Team leaders can be observers when their team takes part in a Fight, if they do not work in the Jury in other rooms. They have no right to intervene in any of the actions, and communicate with the teams and the Jury throughout the Science Fight.

IX. Stage regulations

#	Performance	Duration
1	**Challenge.** The Opponent challenges the Reporter to present a solution for one of the problems available in the Science Fight. **Rejection.** The Reporter has a right to decline the Challenge. The procedure of the challenge is repeated until the Challenge is accepted. The rejections can incur penalties.	See *1
2	**Preparation** of the Reporter	See *2
3	**Presentation** of the report	8 min
4	**Clarifying questions** of the Opponent to the Reporter	3 min
5	**Preparation** of the Opponent	3 min, see *3
6	**The Opponent** takes the floor	4 min
7	**Discussion** between the Opponent and the Reporter	5 min
8	**Clarifying questions** of the Reviewer to the Reporter and the Opponent	2 min
9	**Preparation** of the Reviewer	2 min
10	**The Reviewer** takes the floor	3 min
11	**Discussion** of the Reviewer with the Opponent and the Reporter	3 min
12	**Clarifying questions** of the Jury to the speakers	5 min
13	**Concluding remarks** of the Reporter	1 min
14	**The grading**	3 min
15	**Concluding remarks** of the Jury	4 min
16	**Summary and results** of the Stage	1 min
17	**Break**	10 min
Total for one stage (no break incl.)		appx. 50 min
Total for a 3-team SF with 2 breaks		appx. 3 h
Total for a 2-team SF with 1 break		appx. 2 h
Total for a 4-team SF with 3 breaks		appx. 4 h

*1:

The time for the challenge is **2 min** in Selective SFs with main problems and in the Semi-Final SF;

The time for the challenge is **6 min** in SFs with additional experimental problems;

The challenge is omitted in the Final SF.

*2:

The preparation time for the Reporter is **3 min** in Selective SFs with main problems and in the Semi-Final SF;

The preparation time for the Reporter is **45 min** in SFs with additional experimental problems;

The preparation time for the Reporter is **1 min** in the Final SF.

* 3

In the SF with two teams, the team of Opponent is divided into two independent groups of which one acts as the Opponent, and another acts as the Reviewer.

X. Team performance in the Stages

1. **The Reporter** presents the essence of the solution to the problem by their team. The Report must contain the formulation of the problem, the basic ideas and methods for the solution, including the description of the observations and the experiments, and also the clear conclusions. All basic points of the Report must be presented visually as tables, graphs, mathematical formulae, photos and videos, etc.

2. **The Opponent** criticizes the report, including its contents and form. The Opponent points to possible inaccuracies and errors in the understanding of the problem and in the solution by the Reporter. The Opponent should emphasize the advantages of the Report. The Opponent should express their agreement or disagreement with the Reporter's conclusions. **The presentation of the Opponent should not become a presentation of their own solution.**

3. **The Reviewer** presents a short evaluation of the presentations by Reporter and Opponent pointing to the strong sides and to the possible drawbacks and disadvantages.

4. **The Observer** does not participate actively in the SF.

XI. Rules of problem-challenge and rejection

1. All problems presented in the same SF must be different.

2. In the Selective and Semi-Final Science Fights, the Opponent can challenge the Reporter on any problem available for such Fight, except for those problems that:

      a. the Reporter has previously reported (in earlier SFs);

      b. the Opponent has previously reported;

      c. the Reporter has previously opposed;

      d. the Opponent has previously opposed.

3. The Reporter can reject the Challenge. Such rejection is recorded in the protocol. In such case, the Opponent makes a new Challenge.

4. It is allowed to make a challenge on the problem that has been previously rejected.

5. In a situation that no problems are left for a challenge, the restrictions in the p. 2 are lifted in the following order: first d., then c., then b., then a.

XII.Penalties

1. Penalties may be applied to the Reporter for rejecting a challenge if throughout the given and all earlier SFs the number of rejected Challenged exceeds the allowed number of rejections for the given type of problems.

2. The maximum allowed number of rejected Challenges for various problem types is decided by the IOC for the specific IYNT (see Appendix.)

3. Penalties will reduce the value of the Reporter's Coefficient (RC) for a given value during the SF where the rejection was made (see Appendix.)

XIII. Grading parameters

1. Grades (G)

Each juror grades the performances of the teams by giving integer grades:

the presentation during the Opening Ceremony on a scale of 1 to 10 points;

for the Reporter in a SF from 1 to 30 points;
for the Opponent in a SF from 1 to 20 points;
for the Reviewer in a SF from 1 to 10 points.

All grades are recorded in the protocol.

2. Average points (P)

The average points (P) for the performances of the teams are calculated in the following manner: the maximum and the minimum grades are replaced with one grade equal to their arithmetic mean. In the next step, the arithmetic mean of this and the remaining grades is calculated.

For the Report, the resulting mean is multiplied by the Reporter's Coefficient (RC.)

All results are rounded to 0.1 points.

3. Sum of Points (SP) in a Science Fight

The Sum of Points is equal to the arithmetic sum of all the Average Points of the team in all performances in the given SF.

4. Total Sum of Points (TSP)

The integer value of TSP is equal to the sum of all SPs for the team during all completed stages and performances. The resulting value is rounded to 1 point.

The grading parameters are published as a table in the end of each round of the IYNT.

XIV. Semi-Final SF

1. The nine best teams participate in the Semi-Final. The decisive parameter is the TSP. In case of equal TSPs, the IOC decides about their participation in the Semi-Finals based on other grading parameters of the teams. The Semi-Finals are held in 3 groups of 3 teams.

2. The distribution of the teams is according to the following scheme:

Semifinal group A	Semifinal group B	Semifinal group C
1 6 7	**2 5 8**	**3 4 9**
Here the numbers of teams indicate their rating based on the TSP in descending order		

In case of equal TSPs, the IOC decides about the order of the teams based on other grading parameters of the teams.

XV. Final SF

1. Three teams winning in their respective Semi-Final groups participate in the Final SF. In case of equal results, the IOC decides about the Finalists based on other grading parameters of the teams.

2. The forth team can participate in the Final in case their TSP is higher than the TSP of one of the winners of the Semi-Final groups.

3. The distribution of the teams in the first stage of the Final SF is according to the following scheme:

Teams	1	2	3	4
Roles	Reporter	Opponent	Reviewer	Observer (only if allowed, see p. 2)
Here the numbers of the teams indicate their rating based on the TSP in the descending order				

4. During the four hours since the results of the Semi-Finals are announced, the Finalists select the problems for their reports. In case of conflicting choices, priority is given according to the order of presentation in the Final (see p. 3.) The choice is made public immediately.

XVI. Winners

1. The members of the team winning in the Finals are awarded 1st place diplomas.

2. Other teams participating in the Finals are awarded 2nd place diplomas.

3. All other teams participating in the Semi-Final SFs are awarded 3rd place diplomas.

4. All other participants of the IYNT receive certificates of participation.

5. Team leaders receive certificates indicating the ranking of their team.

XVII. Official language

The official language of the IYNT is English.

XVIII. The status of the regulations of the IYNT

The regulations are established by the IOC and may be changed only by the IOC.

Appendix to the Regulations of the International Young Naturalists' Tournament for the year 2013

V. Team registration

The requirements for the registration at the IYNT 2013 include:

1. Registration on the webpage of the IYNT. Each team must register on the webpage of the IYNT and submit their filled registration form to the IOC. Each team is then assigned by the IOC with their identification number (ID.) The ID of the team will be used in all official IYNT forms and protocols. The deadline for the registration is March 25, 2013.

2. A short video or an image gallery giving a visual impression about the team members and leaders. The deadline is March 25, 2013.

3. A provisional solution for one or several main problems for the IYNT: problems No. 1 to No. 5. The solutions will be graded by the Jury and the grades will be sent back to the teams. This will allow teams to have an impression about the grading criteria. Furthermore, this will allow teams to be better informed when they improve their solutions in the remaining time.

The teams should not submit provisional solutions to the problems No. 6 to No. 12.

4. The provisional solutions to the problems must be in PowerPoint slides including images and photos, drawings and diagrams, and also audiovisual materials. Such materials must be compressed as a *.rar or a *.zip archive and named **2013_ID_N**.* (where **ID** is the identification number of the team, N is the number of the problem.) The size of the file should not exceed 10 Mb.

The file should be sent to the IOC via email.

5. **Grading of the provisional solutions for the IYNT**:

	Grading criteria	Max points
1.	**Key essence** of the solution to the problems No. 1 to No. 5: Correctness of the strategy, reasonable choice of models, presence of theoretical and experimental evidence, validity and depth of the conclusions.	**10**
2.	**Visual qualities** of the presentation to the problems No. 1 to No. 5.	**4**
3.	**Suggested wording of the Problem No. 1 "Invent Yourself":** The preference is given to experimental tasks. The best task will be included into the the set of problems for the year 2014.	**10**
	Total maximum:	**80**

6. Deadlines to submit solutions to the IOC by email:

No. 2	No. 3	No. 4	No. 5	No. 1
April 4	April 6	April 8	April 10	April 12

VII (p. 2.) Presentation of the teams

1. Each team presents itself in a short performance at the Opening Ceremony

2. The presentation can be of any genre and of any kind. Team leaders may also take part in the presentation.

3. The duration of the presentation is limited to 3 minutes

4. The Jury evaluates the presentation on a scale of 10 points and the score is one of the grading parameters at the IYNT. The maximum grade is 10.

VII (p. 3.) Drawing lots

The lots are drawn at the Opening Ceremony. The scheme of the drawing lots is made public prior to the procedure. The lots will allow for such distribution of teams in the groups that:

1. no two teams shall meet more than once;

2. the teams having the highest ratings based on the provisional results shall not meet each other in the Selective SFs. The number of such teams equals the number of groups

3. the roles of teams in the three qualifying Selective SFs shall rotate

4. each team has to change rooms so that each time it is graded by a different group of jurors.

5. the teams from the same geographical region should not be in the same group.

6. exemplary distribution of 18 teams:

	Groups																	
	A			B			C			D			E			F		
SF 1	1	7	13	2	8	14	3	9	15	4	10	16	5	11	17	6	12	18
SF 2	12	17	4	7	18	5	8	13	6	9	14	1	10	15	2	11	16	3
SF 3	15	6	11	16	1	12	17	2	7	18	3	8	13	4	9	14	5	10
SF 4	2	9	18	3	10	13	4	11	14	5	12	15	6	7	16	1	8	17
	I	II	III	I	II	III	I	II	III	I	II	III	I	II	III	I	II	III

Note: in the first Stages of the fourth and following SFs the roles will be determined by their TSP in the decreasing order.

VII (p. 4.) Number of Science Fights at the IYNT 2013

1. There are **two** selective SFs with the main set of the problems.

2. There are **two** selective SFs with the additional experimental problems.

3. There is **one** Semi-Final SF with the main set of the problems.

4. There is **one** Final SF.

VII (p. 7.) Special nominations at the IYNT 2013

"Invent Yourself": the Jury will select the best wordings in the category of "Invent Yourself" and they may be used as the problems for the future IYNTs.

VIII (pp. 3, 4, 5.) Roles in the SFs

4 team SF

Team	Stage			
	I	II	III	IV
A	Rep	Obs	Rev	Opp
B	Opp	Rep	Obs	Rev
C	Rev	Opp	Rep	Obs
D	Obs	Rev	Opp	Rep

3 team SF

Team	Stage		
	I	II	III
A	Rep	Obs	Rev
B	Opp	Rep	Obs
C	Rev	Opp	Rep

2 team SF

Team	Stage	
	I	II
A	Rep	Opp, Rev
B	Opp, Rev	Rep

Note: Rep is Reporter, Opp is Opponent, Rev is Reviewer, Obs is Observer.

VIII (p. 9.) Limitations on team members to take the floor

1. During any single Science Fight (Selective, Semi-Final and Final) each team member may take the floor only once in one role.

2. Throughout all selective SFs, each team member can take the floor no more than once in any of the three roles.

XII. Penalties

1. Penalties will be applied to the Reporter for rejecting a challenge if during the Science Fight the Reporter exceeded the allowed number of rejections for a challenge.

2. In the Science Fights with the main IYNT problems, the total allowed number of rejected challenges not incurring a penalty is two. Such Science Fights are two Selective fights and one Semi-Final fight.

3. In the Science Fights with the additional (experimental) IYNT problems, the total allowed number of rejected challenges not incurring a penalty is two. Such Science Fights are two Selective fights with additional (experimental) IYNT problems.

4. Repeated rejection (if a challenge on the same problem has been rejected by the team before) incurs no penalty.

5. Penalties will reduce the value of the Reporter's Coefficient which was initially set to 1 and is decreased by 0.1 with each challenge rejected after the rejections allowed in p. 2 and p. 3.:

Number of rejected challenges	0, 1, or 2	3	4	etc.
Reporter's Coefficient	1	0.9	0.8	

6. Penalties incur only within one Science Fight, and previous rejections in previous Science Fights do not count. In each new Science Fight, the Reporter's Coefficient is initially set to 1 regardless of the number of earlier rejected challenges.