

# **Regulations for the SYNT 2017**

# 1. Swiss Young Naturalists' Tournament

The Swiss Young Naturalists' Tournament (SYNT) is a science competition for students up to 16 years old (students must not turn 17 years during the calendar year of the respective tournament). Participants are challenged to prepare a theoretical and experimental solution to a complex problem and to present and defend their solution in a debate (Science Fight) against the opposing team's scrutiny.

The SYNT takes place on one day (e.g. Saturday) before the International Young Naturalists' Tournament (IYNT) of the same year (i.e. usually between March and May). The tournament is organised by the association Pro IYPT-CH.

In order to facilitate preparation for students wishing to participate at the SYNT, Pro IYPT-CH organizes the SYNT Science Workshop. The SYNT Science Workshop is a three-day long preparation course during which participants can conduct measurements and learn the basic skills required at the SYNT. The SYNT Science Workshop takes place a few weeks prior to the SYNT.

The problems for the SYNT are selected from the IYNT problems. They are published on the SYNT website (www.swissynt.ch) at least six months before the SYNT.

### 2. Website

Important information (deadlines, problems, results, etc.) about the SYNT and the Swiss team at the IYNT are published on the SYNT website (www.swissynt.ch).

# 3. Preregistration and Application

We encourage a pre-registration by 15<sup>th</sup> January 2017. The final deadline for registration is the 28<sup>th</sup> *February 2017*. This date applies both for students wishing to participate at the SYNT and the SYNT Workshop as well as for students who only wish to participate at the SYNT.

An application is only valid if the terms of participation arrives on time (as mentioned above) and with the respective signatures. The terms of participation can be found on www.swissynt.ch. The terms of participation must be mailed to:

Samuel Byland Verein Pro IYPT-CH MNG Rämibühl, Physikinstitut Rämistrasse 54 8001 Zürich

There are two possible ways to apply:

- School teams: Any school (including international school) in Switzerland can nominate one or several teams of two students.
- Individual participants: The organiser will try to match students applying as individuals with other students to form teams of two students.

Every student in a team has to present the solution to a different problem



# 4. Fees

The participation at the SYNT and SYNT Science Workshop is free. The costs for train tickets and for food are offered by the organiser and/or the host. Pro IYPT-CH has a limited budget for experimental equipment. Please contact the president in due time if you would like to benefit from financial support.

# 5. Preparation

Pro IYPT-CH organizes the SYNT Science Workshop during which the students receive coaching and can prepare for the tournament.

In addition, Pro IYPT-CH seeks the support of universities and research institutes (e.g. ETH, Empa, Science Lab, etc.) in order to allow the students to use adequate experimental equipment where the schools cannot provide this or to get in contact with experts in the respective field.

# 6. Science Fights

All teams participate in two rounds of preliminary Science Fights. The fight plan is published before the start of the SYNT. Every student in a team takes the role of Reporter and Opponent exactly once. The Science Fights are in English. In justified cases the organiser may allow exceptions.

# 7. Science Fight regulations

#### 7.1. Stages and Time Schedule

At the start of a round the jury members and the teams briefly introduce themselves.

A Science Fight with two teams is divided into two stages. In each stage the roles of the Reporter and Opponent are assigned according to the table below. If there are teams with more or less than two students or Science Fights with more or less than two teams, similar schemes apply.

Science Fight with two teams			
Stage	1	2	
Team 1	Rep	Орр	
Team 2	Орр	Rep	

The tasks for the two students actively involved in a fight are as follows:

- The Reporter presents his/her solution for the selected problem. The solution is expected to cover at least an important aspect of the problem with a theoretical model and experimental results verifying this model. The solution should be understandable for a secondary school student.
- The Opponent asks clarifying and critical questions and points out possible shortcomings and mistakes in the solution presented by the Reporter. He/She shows the presentation's strengths and weaknesses. The discussion has to be based on the solution presented by the Reporter (not on the Opponent's). A good Opponent should lead the discussion in a way that both participants can learn something new.

The Science Fight follows a strict timetable (see table below). After the time reserved for a phase has been used up no new thought may be added. If the preparation time is exceeded, the time for the next phase is shortened accordingly.



Phase	Time (total 30')
Presentation of the reporter	8'
Clarifying questions of the Opponent to the Reporter	3'
Preparation of the Opponent	3'
Statement by the Opponent	4'
Discussion between Opponent and Reporter	5'
Concluding remarks of the Opponent	1'
Concluding remarks of the Reporter	1'
Clarifying questions of the Jury to all speakers	5'

# 7.2. Team work and aids

During a Science Fight the team members are allowed to communicate with each other. Support from outside the team (e.g. from their physics teacher) is strictly forbidden.

During every stage of a Science Fight there is only one active participant per team. The other team members are allowed to help with short comments or give technical support.

# 8. Jury

The Jury is organised by Pro IYPT-CH. Each jury consist of a chair person who ensures that the SYNTregulations are obeyed and other jurors.

At the end of every stage the jury assesses the performances and every juror shows marks from 1 to 30 for the Reporter and from 1 to 20 for the Opponent. The score for a team corresponds to the weighted average (highest and lowest mark with 50 %, all others with 100 %).

# 9. Ranking

The grades of each fight are used to make a team and an individual ranking. Both rankings will be published.

# **10. Final Fight**

The two teams with the highest total score (team ranking) after two rounds qualify for the Final Fight. In case of two teams in second place with the same total score the more balanced individual scores are preferred. In the Final Fight the second team after second rounds presents first, the first team last.

Within thirty minutes after announcing the participants of the Final Fight, the teams notify the organiser of their favourite problem. If both teams intend to present the same problem, the better-placed team has higher priority. The accepted problems are announced immediately.

The Final Fight follows the same regulations as the normal Science Fights. In a team of two every team member has to be on stage in at least one role.

# 11. Absence of a team member

In case one or more team members are unexpectedly unable to attend the SYNT the team must report this to the organizers immediately.

The team is then expected to perform the roles of the missing team members. The grades do not count for the individual ranking.



In case a team is reduced to only one team member, the remaining team member may find one additional helper who is eligible to participate at the SYPT and is not active in another fight. The helper is not allowed to take a role on stage. The organizers then must be informed immediately.

# 12. Team selection

Six students can qualify to represent Switzerland at the International Young Naturalists' Tournament (IYNT).

The members of the winning team are directly qualified, unless a team member missed one of his/her stages in the preliminary rounds. Other team members are selected by Pro IYPT-CH. For this Pro IYPT-CH considers the individual ranking as well as further criteria.

In case a member is unable to be part of the IYNT-team Pro IYPT-CH will approach further candidates.

# 13. Responsibilities

The regulations have been approved by the association Pro IYPT-CH.

Zurich, 14.12.2016