RULES

The "Golden Fleece" tournament is an international team Competition in chemistry among students aged 14-16. Each team participating in the tournament consists of 4 -to- 6 students from one or more schools. The team is led by a mentor, assisted by 1 assistant. The Mentor and Assistant can be school teachers, students of higher education institutions, scientists, etc.

The teams participating in the tournament will receive "homework" in advance, which includes 4 Theoretical and 2 Practical Tasks.

The Theoretical Task requires the development of a hypothesis for solving a scientific problem. To examine the hypothesis, it is necessary to find and study the relevant theoretical materials, draw conclusions, prepare a presentation to represent the completed task.

The Practical Task is in the making of specific model and its demonstrations. To complete the Task, it is necessary to find all relevant information, plan and perform the experiment, analyze the obtained data, etc.

The number of participating teams is 16.

The tournament is held in 3 rounds

Round 1.

The 1st round is a presentation of Theoretical Task and should last 2 -to- 2.5 hours.

The Competition will start with a draw and then the participating teams will be assigned a number. They shall then be broken down into 4 subgroups. Additionally, the order of the Presentations and the roles of the team members (reporters, opponents) will be determined by the draw.

The Theoretical Tour.

The Tour will be conducted according to the following:

First, team #1 will present a 10-minute report on the theoretical homework they have prepared, then the subgroup teams will play the role of the opponents.

After the report a 20-minute discussion will ensue in which the opponents are allowed to ask one question and one comment each.

Then, the second team will make their report, followed by the subgroups and opponents. This will continue until all the teams have presented and been challenged.

All the teams will present one report and shall also play the role of the opponent 3 times.

In each subgroup, the course of the tour is monitored by the international jury, which will evaluate each team's performance both as speakers and as opponents. The evaluation will be in accordance with the criteria prepared in advance. The Teams will not be notified of their score until the final stage.

Round 2.

In the 2nd round, the teams will be divided into new subgroups. The distribution of these new subgroups will be based on the following:

the Team seeded as number 1 in the subgroups of the 1st round will form the 1st subgroup of the 2nd round, the 2nd team, and so on – will form the 2nd subgroup, and so on. All the teams in the 2nd round will meet new rivals during of 2nd round.

The format of the 2nd round is similar to the first; however, in the 2nd round the Practical Homework will be Presented.

The evaluation of the second round will be similar to that of the first.

This will conclude the first day of the tournament for the participants. The jury members will gather and sum up the scores in a joint session. After the results are obtained a ranked list will be created:

The top 4 teams will go to the finals. The remaining teams will be placed in the "Relaxation Round".

All Participants will learn about the results the next morning.

The second day of the Competition begins with the announcement of the results.

The Teams that did not make it to the finals shall meet in a separate hall. They have to conduct 12 fun experiments. These experiments will be evaluated by the jury and awarded prizes in various categories. The Experiments will be distributed to the Teams by lot. The Teams should familiarize themselves with the methodology, think of how to conduct experiments in a way that is impressive and, at the same time, correctly interpret the chemical essence of the experiment, i.e., the teams should show what is happening in the experiment and why it is happening.

Final

The teams that make it to the finals will be placed into separate laboratories. They will have to perform two tasks unknown to them.

<u>The 1st task of the final is synthesis:</u>

The participants will have to get acquainted with the method of obtaining an organic compound, perform the procedures for the synthesis of this compound and present their synthesized product to the jury. 2 -to- 3 hours will be allotted for this task. The organizing committee will evaluate the quantity and purity of the prepared sample. Each team is evaluated based on the assignment.

The 2nd task of the final is analysis:

The teams will perform a chemical analysis of a selected sample according to a prescribed methodology and present the results to the jury members.

1 -to- 2 hours will be allotted for this task.

This will conclude the second day of the tournament. The Jury members will meet to select the winning team. The results will remain secret until the following day.

The awards and closing ceremony of the tournament is to be held on the third day of the Competition.

First:

The nominated teams of the "Relaxing Tour" will be awarded.

Second:

The chairman of the jury will present the evaluation of the products obtained during the Final Competition. The evaluation and analysis of the samples shall be presented, and the Final Competition results will be announced.

The winning team will be announced and receive the main award - the “Golden Fleece”, the second-place team will also receive special prizes.

Evaluation Criteria

Evaluation Criteria for Theoretical Problems Presentation:

- Time Management: Ensure each presentation adheres to the 10-minute time limit, with an additional 3 minutes allocated for follow-up questions.
- Adequacy: correlation between the report's contents and the given theoretical problem.
- Depth of Topic Discussion: thoroughness of the discussion on the chosen topic.
- Multidisciplinarity: How well the presentation connects the topic to different STEM branches.
- Originality: uniqueness of the solution proposed for the problem.
- Teamwork: collaborative efforts demonstrated during the presentation.
- Quality of public speaking and the appropriate use of visual aids (slides).
- Comprehensive Answers: adequacy and comprehensiveness of responses to opponents' questions.
- Culture of discussion: open and constructive discussion.

Evaluation Criteria for Practical Problems Presentation:

- Time Management: Ensure each presentation adheres to the 10-minute time limit, with an additional 3 minutes allocated for follow-up questions.
- Adequacy: correlation between the report's contents and the given practical problem.
- Stability of the presented model.
- Technical/Physical Parameters: How the technical parameters satisfy the given practical problem.
- Material Availability, Sustainability, and Safety.
- Originality of the Model: uniqueness of the presented practical model.
- Teamwork: collaborative efforts demonstrated during the presentation.
- Public Speaking and Visual Aids: effectiveness of public speaking and the correct use of visual aids (slides).
- Comprehensive Answers: adequacy and comprehensiveness of responses to opponents' questions.
- Culture of discussion: open and constructive discussion.

Evaluation Criteria for "Opponents' Questions":

- Time Management: Ensure each opponent's question is answered within a 2-minute time limit.
- Adequacy of the Question: relevance of the asked question to the discussed topic.
- Complexity of the posed question.
- Culture of discussion: open and constructive discussion