Guidelines for prospective organizers of an International Chemistry Olympiad

Contents

1. Introduction
2. General timetable for organizers
3. Necessary amenities
4. The work of the Scientific Committee
5. Day by day organization
6. Sample documents

1. Introduction

These are general guidelines for prospective organizers of an IChO based upon the work by Jan Apotheker (organization chair of the 34th IchO), the reports of the working groups in Neusiedl am See, Warsaw, and Smolenice and a 2003 Hungarian proposal.

This version was compiled by Gábor Magyarfalvi. Last update according to the suggestions of the Steering Committee was in December 2009, in Tokyo.

This document should be edited and updated regularly so that future organizers can use it. It should be available to all interested parties. These guidelines are just recommendations and suggestions that reflect current (and hopefully good) practice. They refer to and elaborate on the regulations of the IChO. The regulations must be adhered to at all times. However, these guidelines are not part of the regulations and they are not binding to either party. If they cannot be adhered to, or there is a better way of doing things, then the matter should be discussed by the organizers and the International Jury.

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2. General timetable for organizers

Before application

The basic question is whether there is enough support available to host an IChO.

Necessary support must come from organizations such as:

- Ministry of education
- National chemistry society
- University
- Chemical industry
- National (chemistry) teachers association

Prospective hosts should apply at least 3 years ahead, submitting a letter to the steering committee (naming the contact person of the organizers).

Finances
The cost of organizing the IChO depends, among other things, on the country where it is held and the number of participants.
Germany had a budget of 1,400 k€, Korea 2500 k$, Russia 3000 k$, Hungary, 1000 k€, UK 910 k£.
Prospective hosts must have adequate financial guarantees before applying to organize an IChO.

Venues
Before formulating an application to host an Olympiad the venue to be used for the practical examination must be clear. With the growing number of participants, (240 in 2003 increasing to 260 in 2009), lab space is an important consideration.
Sufficient accommodation for students and mentors must also be available. Each country sends 4 students. The number of people accompanying the students is about 3 per country.

Organization
You need a reasonable number of people within the institution that will serve as the base for the activities. The chair of the olympiad should be tied to that organization in some form.
Several committees need to be formed:

- *an organizing committee*, with a number of people responsible for different tasks. Each of the subcommittees is represented on this committee. This is the committee that is formed first and the committee that makes all of the decisions.
- *a scientific committee*, responsible for the preparatory and competition problems and exam correction
- *a support committee*, This committee has no function other than endorsing applications for financial and other support. Members may be local mayor, governor, national minister or president, royalty, university rector, Nobel Prize winners etc.

Year minus 3

The application to the steering committee has been accepted.
The chair of the organizing committee is now a member of the steering committee. He or she will report in the December meeting of the steering committee on the first steps of the organization.

At this time there should be

- A firm commitment of financial support.
- A definite venue for the practical exam and theoretical exam
- A chair of the scientific committee
- An organizing committee

- A tentative timetable of the IChO (See suggestions in part 5)

Year minus 2

By this time the venues have to be reserved.
The scientific committee should have started its work.
The logo of the Olympiad has been decided upon.
Decisions on the excursions need to be made. Most things will be available about two years ahead of time.
Contacts must be made with the government.
Checks should be made which officials or royalty will be present during the opening or closing sessions.
Membership of all committees must be established

Year minus 1

During the Olympiad the next organizers distribute the first issue of the Catalyzer. They receive the flag of the Olympiad at the closing ceremony. The website of the Olympiad should be live.

Registration is organized through the head mentor for each country. Therefore the organizing committee must know the contact details of this person. This can be done either by sending them a letter in September (see sample 1), or by canvassing countries at the prior Olympiad.
The head mentors receive an invitation by December (see sample 2). In a number of cases, indicated by the mentors, an additional invitation must be sent to the ministry of education or the national chemical society.
The mentors should send back

- The names of the adults accompanying the team ASAP (see sample 3)
- The names of the team participants (see sample 4)
- Their travel schedule (see sample 5)

By September, the first draft of preparatory problems should be ready
In December a steering committee meeting is hosted and the venues are presented.

The year of hosting

The preparatory problems without the worked solutions are published on the web in January. Two hard copies with solutions are sent to each head mentor, but there is precedent a simply posting via e-mail. The current regulations including the syllabus should either be included in the problem booklet or published on the website.

After distributing the preparatory problems with solutions to the headmentors, the host should launch and moderate a special webpage of *Scientific Committee* for receiving comments and corrections.
By January it should be clear what glassware, chemicals and solutions are needed during the practical exam.
By May the final version of both exams should be ready and tested.
By June you will receive the travel plans and the names of the students.
You will need at least two weeks to prepare the labs for the practical exam.
During the Olympiad you will have to provide for three groups of guests:

- Students (4 per country) + 1 guide for each team
- Mentors and scientific observer (maximum 4 per country)
- Paying guests at the discretion of the organizer (about 5%).
  They include the observers from future participants. Some countries prefer if they are called observers.

Post olympiad

A report needs to be prepared.

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3. Necessary amenities

The Catalyzer
An editorial board is needed for the Olympiad newspaper, the Catalyzer. This board may also create other publications. During the Olympiad you need a photographer, and a few writers.
The Catalyzer should appear daily during the Olympiad and may contain news about .the student participants and their excursions, articles relevant to chemistry in the host country (famous chemists), jokes, etc.
The last Catalyzer contains the allocation of the medals and should be available at the closing ceremony The Olympiad is a competition between individuals, not countries, so country rankings are not included in this document.
One of the Catalyzers or a document distributed to every participant should contain the contact information of mentors and students.

Guides
A guide who stays with the students at all times is needed for each team. Generally it is advisable to get a guide who speaks the same language as the students. Most often the guides are university students.

Lab assistants
These assist during the lab exams. You need about 1 for every 8 students. They should be aware that they would not have a common language with

quite a few of their students. However, there should not be any communication with the students except in the case of an emergency.

Buses
It can speed up transportation if people are assigned to the same bus throughout the olympiad. In addition a person responsible for each bus can be useful.

General assistants
In the mentors' venue helpers for all sorts of tasks (5 persons or so) come in very handy.

Backpack and materials
It has become customary to give all participants a bag or backpack, containing general information, a T-shirt, a notepad, writing equipment, and a calculator. The latter are to be used during the exams. This way the checking of the calculators is avoided. The pens should leave a mark that makes visible copies.

Name tags
All participants should wear a color-coded tag, with their name, their country and their function (student, mentor etc). These labels also contain a small program for the Olympiad. The labels for the students should indicate their code e.g. NL-1, US-2, etc.
Gathering a short "nickname" that a participant would like to be addressed as and printing it on the tag is a good idea started in Cambridge.

Catering
Care should be taken with all meals. Because the standard diet of the various countries differs tremendously, and for some religions, there are food restrictions, a variety of food should be served. It is important to label the content of the foods served. Pork and beef is not always suitable for everybody. Vegetarian food should be made available. The breakfast also should suit both Western and Asian diets

Computers
Computers are made available for each country to translate the final text of each exam into the language used by the students.
Teams using a common language are usually cooperating. It might be useful to find out about the cooperation beforehand and distribute the computers according to languages.
Computers should use Windows and Microsoft Word. The programs required to edit schemes, diagrams and structures should also be available to allow the translation of the captions, but it is advisable to avoid text in the figures and schemes.
If a country has special requirements, like an azerty-keyboard, they have to bring them.
You need to have a special team that can help in case of computer problems.

If only a single computer is assigned for a language, translators should be allowed to use their own laptop computers. Inform the delegations beforehand if they can /cannot use laptops.
Networking the computers is not necessary (the risk of viruses and worms is high with laptops and media from all over the world), but there will be a need to print rather large volumes easily.

Copying facilities
50000-100000 (10^5) pages of paper could be used during the Olympiad. High-speed copiers (with backup) and enough personnel are necessary to meet the tight deadlines. Avoid stapling and low quality paper (for auto-feed).

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4. The work of the scientific committee.

Membership
In the past chemistry professors of the organizing country have chaired the committee. The members should be academic staff in different fields of chemistry each with an excellent command of English.
An experienced mentor must also be a member of the scientific committee. This person would make sure that the problems generated by the committee fit into the regulations of the IChO.

Timetable
The scientific committee should have at least two years to work on the exams.
Its members should be aware of the nature of the Olympiad and their role during the Olympiad. The importance of such a briefing can't be overemphasized due to the unique nature of the competition. The role of the jury and the importance of the jury sessions must be emphasized. Typical IChO problems are different from the textbook, classroom or exam problems educators use.
During the two years, there should be a regular contact between the committee and the organizing committee.

Preparatory problems
The preparatory problems come with worked solutions, but the solutions are initially sent to the mentors only. Some countries request that the official solutions are not published to the general public (Internet) until the end of Olympiad so that they can use the problems in their exams.
Do not underestimate the work required to prepare a consistent problem set. The participating countries scrutinize the prep problems in detail, as this is their main source of information before the Olympiad.
The committee should take care that the examinations and the prep problems are consistent with each other and the regulations. Probably it is a

good idea to have the outline of the exam problems ready before starting work on the prep problems.
Special care should be taken about the number of advanced topics in the prep problems. There is a maximum of 6 theoretical topics and 2 practical skills allowed here. These should be listed separately and each should be included in at least two problems.
It is not desirable when other advanced fields remain in the prep. problems without explanation (e. g. hidden in a subproblem), because many countries will try to cram in training in those fields. Authors should be reminded that these advanced topics are introduced to most students in a very limited time. They will still be high school students, not experts (e. g.: their dexterity in the lab, their spectrum interpretation skills will be still limited). The problems should require more thinking than preparation.
Any factual info (e.g.: chemistry of an element or a specific reaction type) that is needed in the exam should also come up in the prep. problems as well.
The recipes of the practical should also be tested thoroughly and prepared with secondary students in mind.

Practical exam

All experiments to be done in the practical exam should be thoroughly checked under the conditions that will be experienced during the practical examinations at the Olympiad. It is wise to have more than one qualified person perform the experiments during the exam as well.
When considering the quantities that are to be supplied and the time to be allotted to the tasks, remember that the competitors are high school students who are inexperienced lab workers. The length of the exam should be such that most students will have time to attempt to work through all tasks.

Theoretical questions in the practical, if any, should pertain to the essence of the experiment.

Every effort has to be made to ensure that individual sets of equipment and workplaces are equivalent.
It is possible to have split laboratory sessions. That is, a morning session and an afternoon session can be held for all. Alternatively, laboratories can also be rotated in two sessions. The reservations expressed to the latter system are that students must be strictly separated and that the organizers must insure that the equipment has been properly cleaned and dried if it is being reused.
Labels on containers in the lab should use chemical formulas, not names, where possible.
If there are reagents for common use of students, care should be taken to avoid cross-contamination. Common use of equipment or materials should be avoided if possible

If there is equipment for common use, a system should be in place that minimises waiting time and provides fair use (e. g. sign-up list monitored by supervisors)
There have been problems in the past with time required for the drying of a product/melting point determinations. Sometimes this has been overcome by lab staff making the measurements after the students have left.

A scheme should be constructed for grading experimental results that is based on results obtained during testing of the practical. A suggested solution that has worked well in the past:

- Full marks should be awarded if the result is in a range that reflects the values expected by the examiners. The expected theoretical value must come from the analytical procedure performed on the exam day.
- No marks should be given to results outside the limits of acceptable values.
  Both ranges, expected and acceptable should reflect the examiners experiences.
- Between these two, a linear scale should be applied.

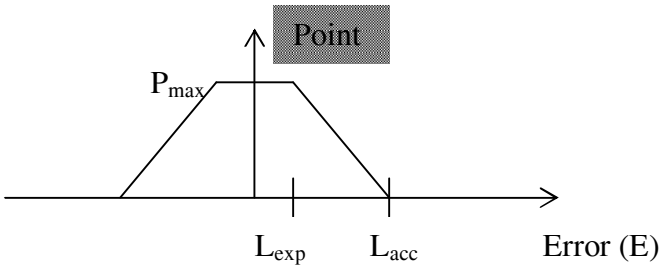
Numerically: P_{max} points, if $0 \le |E| \le L_{expected}$

0 points if $L_{accepted} \le |E|$

$P_{\max}\left(1-\frac{|E|-L_{\exp}}{L_{acc}-L_{\exp}}\right)$ if $L_{expected} \le |E| < L_{accepted}$

(P_{max} – maximum points, E – error, L – range limits)

Graphically:



Typical values for a titration would be

$L_{expected}$ = 0.5% relative error in the volume.

$L_{accepted}$ = 3 % relative error in the volume.

Ranges need not necessarily be symmetrical. The accepted range above the true melting point should be rather narrow for example.

Students should be allowed to decide on the number of parallel measurements (titrations) they make. Only the final value (probably a mean) as reported by the student should be graded. Marks should depend on experimental values, but not on precision. (This is based on the fact that students may make up concordant results.) The emphasis should be on marking practical work, therefore the results should be recalculated uniformly.

Errors in the calculations should invoke a minor penalty, the magnitude of which should be suggested by the organisers and approved by the International Jury.
Serious mistakes in applying the rules of evaluation of experimental errors can be penalised (e.g. number of significant figures differs in more than two digits from the correct, rounding errors exceeding accuracy). The magnitude of the penalty should be suggested by the organisers and approved by the International Jury.
Students can be penalized for asking replacement samples or additional reagent. The practice in past Olympiads was that after the first request there was a penalty of 1 of the 40 available practical points for each subsequent request.

Theoretical exam

The authors should remember that the contestants are high school students. The tasks should focus on using the fundamentals of chemistry in a unique way that requires thinking. The emphasis should be on Chemistry, not on mathematics. The length of the exam should be such that students will have time to attempt to answer all questions.
There should be a balance between the classical areas of chemistry.
Do not overlook the number of significant figures in the theoretical part. Many members of the Jury like to point out the inconsistencies. However, students are typically not penalized for making minor mistakes in using significant figures in the theoretical exam. This would cause endless discussion in Jury meetings and arbitration.

Marking and arbitration

A detailed marking scheme should be presented with the exam to the International Jury. Points for partial solutions are best decided by the organisers using common sense during correction, and they should be awarded uniformly as all possible errors can not be pointed out beforehand.
E.g.: If the question is to provide a balanced chemical equation, then partial credit should be awarded to those who know the reaction partners, but fail to balance correctly.
The Jury should only discuss partial marks in the most critical cases.
Students are asked and are expected to show their work. This will help awarding partial marks; however there should not be a penalty for failing to show working clearly, as long as the results are correct. That is, if a student omits some, possibly trivial steps, or uses a different solution, she should receive full marks, if the results explicitly asked for are correct. However, if just the result of a complicated problem is given without any explanation, no points are due.
Consequential marking should be used, that is: full marks should be awarded for a question, if the student solves it correctly and consistently using a faulty result from another question. There is no double penalty.
Often this is an issue in jury meetings. Try to minimize carrying over results between questions.

A discussion during arbitration is usually unavoidable and sometimes can become quite heated. The situation should be handled tactfully: mentors are usually quite competent professionals even if their command of English may not be perfect.

Responsibilities of the authors of the problems during the Olympiad

- The author of the experimental tasks must present safety information to the students prior to the practical exam. This must include the demonstration of the use of equipment that is unfamiliar to most high school students.
- The authors of both the experimental and theoretical problems must be present for discussion with the mentors before the jury sessions. They must also attend the jury session during the discussion of their problem.
- The authors must be available during the exams, to solve any unforeseen problems.
- After the examinations, the answer sheets must be copied at least two times. One copy is marked by the authors, the other by the mentors. The original must be kept safe. During arbitration it must be available.
- The authors grade the answer sheets. After arbitration the marks are final. Grading takes a lot of time as does recording of the individual scores of the students. Care should be taken that the name and the code for the student are unambiguous. The final scores must be made available for the mentors for a last check.
- The scientific committee checks the grades and tries to find the cuts for the medal allocation. The Jury makes the final decision without knowing the exact scores, typically at the first sizable point gap under the maximum number of medals according to the regulations.
- Extra prizes could be given for the best theoretical work and for the best practical work, but an extra prize for the best female student is not recommended.
- During the closing session, the chair of the scientific committee presents the results of the exams.

5. Day by day organization of the different items on the program.

Day 1.

Arrival of guests

The organizing committee is responsible for the transport of participants from the international airport to the venue of the IChO. Any means of transportation may be used. Participating countries should supply a time schedule of the arrival of the delegations. Delegations should not be kept waiting too long at the airport.
Hotel accommodation must be available for delegations that arrive early or leave late. Those delegations meet the cost.

Registration

Before handing out the name tags and material, the identity of the team members should be checked against their passports.
The list of mentors and observers should be distributed.

Problems with travel documents

The organizing committee should check beforehand with the ministry involved the visa requirements for different countries. Generally an early discussion, i.e. 2 years before the event should lead to a number of sensible agreements between the ministry and the organization. A contact person in the visa department is very handy in case of last minute problems.

Health requirements.

Delegates must have health insurance. This should be checked at registration.
Generally recommendations of the WHO should be followed when situations such as the SARS crisis in Greece arise. A signed document by the head mentor, stating that all members of his team are insured should suffice.

Academic code

It is recommended that each delegation sign an academic code that includes a voluntary communication ban on students, mentors and observers during the critical part of the competition. Checking compliance should be at the discretion of the organisers.
In Groningen mobile phones for both the mentors and the students were collected. In Athens the organizing committee collected the student's phones.

A welcome dinner is customary on this evening.

Day 2

Opening session

The opening session must be planned well beforehand, particularly if you want officials at the national government level to participate. They need to be asked at least a year before.

You must be aware of sensitivities among countries. China and Chinese Taipei/ Taiwan is the most famous example. It is wise to check your arrangement with the ministry of foreign affairs. They have a protocol department that can advise you.
During the opening session the teams are presented. In some Olympiads the students have carried their country's flag or had an image of the flag projected on the screen. In Bangkok photographs from each country were used.
Invitations should be sent to the embassies of the participating countries, and to whomever you think is important. Usually invitations are included in the handbag.

After the opening session a lunch can be served to the participants.
Students must be separated from the mentors until both exams have been sat. The groups have different programs as outlined below.

The mentors program

After the lunch following the opening ceremony, the mentors are taken to the laboratory where the practical examination will take place. They check that the equipment at each workspace is in good order. The positions in the laboratory must be labeled with the code of the student that will work at that position and a plan indicating the place of each student must be available so that the mentors can find their students.
After leaving the laboratories the head mentor receives 2 copies of the exam and the mentors are transported to the venue where the jury session is to be held.

Jury meetings could be shortened considerably if there is adequate time for the delegates to study the problems and discuss them individually with the authors before the full jury meeting. Many of the issues that mentors may have with the tasks may be resolved in one-on-one discussion with the authors before the task is discussed in the entire international jury. During individual discussions and before the jury meeting, delegates should be informed of the changes the organiser would make based on the discussion. (E.g. a copy following the changes posted on a notice board during individual discussion, then a printed copy for the full jury meeting) This system is recommended for both the experimental and practical exam.

After the scientific committee has had a chance to discuss the changes suggested by the mentors, Jury session 1 can begin.

Jury sessions can be very painful and lengthy. These are conducted in English and the command of English of many of the participants is not sufficient to effectively present, argue, debate the relevant points.
It is important to have a strong AND fair chairperson at these meetings. The most successful jury meetings in the past have been those where the chairperson allowed the various points to be discussed, insisted on firm written proposals for changes, presented these in a form which everybody could read and then called for a vote. Once the vote has been taken, the item was not further discussed. There may be merit in having a co-chair who is an experienced member of the Steering Committee or the Jury.
The Jury sessions may be exhausting, but it is critical that the correctness of the competition tasks be open for a discussion and that the authors are prepared to accede to suggestions based on experience at previous olympiads.
Correction of phrasing and English spelling should be raised in a Jury meeting only if it can affect meaning.

During the jury session an overhead projector or a computer having the screen projected is the easiest way to discuss the different text proposals. Microphones must be available for all speakers from the floor. The chair must insist that these be used.

Voting should be carried out carefully. Resolutions and options to be considered should be presented to the Jury very clearly (in writing if possible). Conformance with regulations (75% presence, majority vote) should be checked. Results should be announced to all delegations.

Once the final text is agreed upon, this document is made available through the computer network to the mentors of all of the participating countries.
Final text, marking scheme (blue points) and red points should be introduced for acceptance.

The final versions of the exams must be handed in by the head mentor.
The computer network opens at the start of Jury session 1, closes at midnight. The next day, it reopens as soon as the mentors arrive.

Day 3

This is the day set aside for translation. The host country should resist being persuaded to make changes additional to those decided upon in the jury session. Because a number of countries are finished fairly soon, it is possible to organize a small excursion.

Day 4.

This is a day of excursion for mentors and guests.
The mentors should arrive early to receive the copies of the theoretical exam (2 per nation). It has worked well in the past to provide time for the mentors to study the exam for several hours and give them a chance to meet with the authors individually. See above.

The revisions made during the discussion should be available to all teams. At 20.00 the second jury session should start. For the theoretical exams a split session has become the norm, that is half of the problems are considered in one room and the other half in another.
The computer room should be opened at the beginning of the jury session to allow preliminary translation to begin.
After the text of the final exam has been approved by the Jury, it should be put on the network. Any further changes should be avoided as much as possible.

Day 5.

The translation session usually starts around 09.00. Most countries will be finished by 17.00. This is a convenient day for the steering committee to meet.

Day 6

The mentors are really free. They can be taken on an extensive excursion (Amsterdam in Holland, the boat trip in Greece) with the guests. In the evening it become a custom to have a reunion dinner, when students and mentors meet after the exams.
After the reunion dinner the head mentor receives a copy of the answer sheets of the students with the final grading scheme. (Only the printed preliminary solutions are usually distributed before the actual exam.)

Day 7

Even though the mentors are required to mark the scripts, there is ample time for an excursion.
In the evening the third jury session takes place. The agenda for this so-called business meeting is prepared by the steering. This meeting can be merged with the medal-awarding fourth meeting.

Day 8

It is desirable that headmentors can pick up printouts with the detailed results of their students as graded by scientific committee at the beginning of the arbitration. This will save time, since mentors will have a chance to compare the points beforehand and see which tasks require discussion with authors (all the rest should be just signed off).
During arbitration the grading of the student exams by the scientific committee and the mentors is compared. It has worked well to have different sessions, each involving 12 to 18 countries. The members of the scientific committee handle the arbitration for their own question. There is a time limit put on the discussion for each. In difficult cases, the delegation should be asked to return later. In cases where no agreement can be reached the chair of the scientific committee has the final word. If a delegation still disagrees, appeal to the jury is possible. This appeal will be decided upon before allocation of the medals.
The final marks should be available for the delegations prior to the jury meeting. The marks can not be changed after a given time.

In the evening the fourth jury session is planned. The first item on the agenda is the allocation of the medals. This is done on the basis of a merit list presented on screen in a form, which makes it impossible to correlate the numbers on the screen with individual student marks. The rest of the evening is used for the continuation of the business meeting.

Day 9

The closing ceremony usually takes place at a special venue. See the remarks on the opening sessions.
The program of the closing ceremony has a number of set items.

- Discussion of the results by the chair of the scientific committee
- Awarding of the medals. The medal ceremony starts with the honorary mentions, the bronze, silver and gold medals. The best three are mentioned separately. The organizing committee must be aware of the Regulations with respect to the number of the various types of medals that are awarded.
- Handing the IChO flag to the next organizer. This is done at the end of the ceremony. The representative of the next Olympiad is also allotted some speaking time.

In addition to the above there are usually some cultural items. The ceremony is usually followed by a party.

Day 10

The delegations leave. Some teams go quite early (sometimes right after the ceremony)

The students program

Students need some time to prepare for the exams. Usually some getting-to-know-each-other activity is organized. A variety of excursions are desirable, some cultural, some scientific and some amusement park type things. Students also appreciate a bit of free time. Give them the schedule for public transportation and instruct them how to use telephones.

Day 2
After the opening session the students are transported to their own hotel. The laboratory safety instruction can take place at this point or be delayed until the next day.

Day 3.
Excursion, All the students must take part in the excursions. He/she who is ill must either be taken to a hospital or constantly supervised by a representative of the host.

Day 4.
Practical exam
During the exams, English copies of the exams should be available for students if there is some ambiguity in their translated version.

Day 5.
Excursion. Most students will also want to study for the theoretical exam. All the students must take part in the excursions. He/she who is ill must either be taken to a hospital or constantly supervised by a representative of the host.

Day 6.
Theoretical exam
During the exams, English copies of the exams should be available for the students.

Day 7.
Excursion. It is possible to combine this excursion with that of the mentor excursion.

Day 8.
Excursion.

The guests program

The guests go on the mentors excursions. Additional excursions may be organized for the guests.

Examples of some letters and documents

Sample 1: A letter to a proposed contact person

Dear sir/ madam,

We received your name and address from the organizing committee of the 33rd IChO in India. Before we send out any official mail, we would like to check whether you are still the contact person for your country. We would like to ask you to confirm your address.
We have received the following information:

Head of the delegation of <country>

<Name>
<Address>
<City>
<zip code>
<phone>
<fax>
<e-mail>

Please let us know as soon as possible if the above information is correct. If not please provide us with the correct information.

Kind regards
Jan Apotheker,
Chair organizing committee

Sample 2: A letter to the head of the delegation

Head of the delegation of "country"

November, 2001 - -
Communication number 1

Dear Mr./Mrs.,

We are very happy to be able to invite the delegation from "country" to participate in the 34th International Chemistry Olympiad, which will be held in Groningen, The Netherlands, from July 5 till July 14 2002.

A delegation consists of a maximum of four students from secondary schools and two mentors. Two Scientific Observers may be added as part of the official delegation.

Observing countries are entitled to send one Scientific Observer. A country must send observers to two consecutive Olympiads before its team can participate in the IChO.

Guests accompanying the delegation will of course also be welcome in Groningen. Please check the regulations concerning the composition of a team carefully. You can find a copy of the regulations at the following URL: www.icho.sk.

The organizing committee will act as host for your delegation from the 5th of July 2002 until the 14th of July 2002. We will provide transportation, lodging and food for your team during that period, including transportation from and to Schiphol Airport. You will need a copy of this letter of invitation as a reference when obtaining the necessary visa for the Netherlands. Please check the visa information, which is provided with this letter.

The participation fee for each country is set at US$ 100∗N. N is the number of years elapsed since the country sent a participating team to the IChO's, or the number of years elapsed since the country hosted an IChO.
The registration fee for a guest or a scientific observer has been set at US$ 1500, -.

Together with this letter we are sending you the necessary registration forms, which must be returned in due time. You will also receive a copy of Catalyzer issue 34, numbers 1 and 2. The set of preparatory problems will be available towards the end of January 2001. You can check our URL: www.chem.rug.nl/icho34 for the latest news.

We would like you to acknowledge receiving this letter of invitation by e-mail at icho34@chem.rug.nl

We are looking forward to welcoming you and your delegation at the 34th IChO in Groningen.

Wout Davids, president of the 34th IChO

Sample 3

COUNTRY REGISTRATION FORM
34th International Chemistry Olympiad
Groningen - The Netherlands
RETURN BEFORE: 1st of February 2002
Fax: + 31 50 363 4500
Contact person:

Country: Argentina

Name:

Address:

City:

Postal zip code

Phone[1]: Fax:

E-mail:

Delegation	Number		Required fee
Number mentors (max 2)			
Number of students (max 4)			
Number scientific observers (max 1)		*$ 1500=(€1687,50)=	$(€) (A)
Number of guests (no max)		*$ 1500=(€1687,50)=	$(€) (B)
Year of first participation or Year of being host			
Registration fee: N =	8	N*$100=(€112,50)=	$(€) (C)
Total conference fee:		SUM(A+B+C)=	$(€)
Please indicate if your own software installation is required	Yes: No:	Software must be sent to us by April 1, 2002	
Examination language	(Indicates the language in which your students will be writing their exams)		

[1] Countrycode, areacode, number

Country:

Sample 4

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MENTOR/ SCIENTIFIC OBSERVER REGISTRATION FORM
34th International Chemistry Olympiad
Groningen - The Netherlands
RETURN BEFORE: 1st of March 2002
Fax: + 31 50 363 4500

Details	Head Mentor	Mentor	Scientific Observer
Family name			
First name			
Gender (male or female)			
Date of birth			
Passport number			
Home address street			
Postal zip code			
City			
Home telephone [2]			
Day phone[1]			
Emergency contact number[1]			
Fax number[1]			
SPECIAL DIETARY NEEDS			
Other special needs (e.g. physical disabilities)			

N.B. Payment of the conference fee should be made by the 1st of March 2002. If this is not possible you must contact the congress registration

[2] (country code, area code, number)

Sample 5

STUDENT REGISTRATION FORM
34th International Chemistry Olympiad
Groningen - The Netherlands
RETURN BEFORE: 15th of May 2002
Fax: + 31 50 363 4500

Country:

Details	Student 1	Student 2	Student 3	Student 4
Family name				
First name				
Gender (male or female)				
Date of birth				
Passport number				
Home address street				
Postal zip code				
City				
Home telephone [3]				
Emergency contact number[1]				
special dietary needs				
School name				
School address Street or P.O. box				
Postal zip code				
City				
Graduation date				

[3] (country code area code, number)

Sample 6

PAYMENT FORM
34th International Chemistry Olympiad
Groningen - The Netherlands
RETURN BEFORE: 1st of March 2002
Fax: + 31 50 363 4500

Country: «country»

Delegation	Number		Required fee
Number mentors (max 2)			
Number of students (max 4)			
Number scientific observers (max 1)		∗$ 1500(€1687,50)=	$(€) (A)
Number of guests (no max)		∗$ 1500(€1687,50)=	$(€) (B)
Year of first participation or year of being host			
Registration fee: N =	«fee»	N∗$100 (€ 112,50)=	$(€) (C)
Total conference fee:		SUM(A+B+C)=	$(€)

The payment of the fee has been made[1] in one of the following ways:
☐ Bank transfer[4]
I transferred an amount of US$ or €……..……to account number: 47.45.67.206
Bank: ABN AMRO
Groningen
Swift code: ABN ANL 2A
Account holder: Rijks*universiteit* Groningen
Faculteit Wiskunde en Natuurwetenschappen
Nijenborgh 4
9747 AG GRONINGEN
Reference: please state your name and our conference ID: 172066.

☐ Creditcard[1]
Please charge payment of US$ or €……..…… to my credit card account
Eurocard ( ) MasterCard ( ) Visa ( )
Card number

Expiry date: Month…...Year…...
Today's date: Month……Day……Year……
Name as it appears on card:……..
Address of cardholder: ……

Signature …….

[4] Please check the correct box

☐ Cheque[1]
A check made payable to "
Rijks*universiteit* Groningen

The payment has been made on date:……
Signature (head of the delegation) :…….

Please send this form to:
34th IChO Secretariat
attn. G.Lap-Koekkoek
Nijenborgh 4
9747 AG Groningen
The Netherlands
Or fax to +31-50-3634500

N.B. Payments should be made by the 1st of March 2002. If this is not possible you must contact the congress registration

Sample 7

TRAVEL INFORMATION FORM
34th International Chemistry Olympiad
Groningen - The Netherlands
RETURN BEFORE: 1st of MAY 2002
Fax: + 31 50 363 4500

Country:

	Head mentor	Mentor	students 1,2,3,4	scientific observer	Guest 1	Guest 2	……
Arrival date							
By car[5]							
By train[1]							
By plane							
Flight number							
Arrival time							
Departure date[1]							
By car[1]							
By train							
By Plane							
Flight number							
Departure time							

There is a possibility of taking tours before and after the Olympiad. See for information Catalyzer nr. 2

If you need hotel accomodation before or after the olympiad please indicate this on the extra sheet, provided with this form

You will have to pay for this extra accommodation yourself. We will host you from Friday the 5th of July 12.00 a.m. until Sunday the 14th of July 12.00 a.m.

[5] If applicable please indicate (approximate) time of arrival/departure

If you need hotel accommodation before or after the Olympiad, please indicate below the required accommodation.

O single room O double room

Name 1: ……
Accompanying person: …… (in case of double room)

BEFORE OLYMPIAD:
Arrival date: ……. - …… - 2002
Departure date: ……. - …… - 2002

AFTER OLYMPIAD:
Arrival date: ……. - …… - 2002
Departure date: ……. - …… - 2002

O single room O double room

Name 2: ……
Accompanying person: …… (In case of double room)

BEFORE OLYMPIAD:
Arrival date: ……. - …… - 2002
Departure date: ……. - …… - 2002

AFTER OLYMPIAD:
Arrival date: ……. - …… - 2002
Departure date: ……. - …… - 2002

Please make copies if more than 2 rooms are required.

You will have to pay for this extra accommodation yourself. You can indicate the required price range below:

O € 50 - € 75 O € 75 - € 100 O € 100 - € 125

We will host you from: Arrival Friday, July 5th until Departure Sunday, July 14th 2002
So you do not need to make reservations in this period.