Top of the Bench regional heats

2022/2023

Support and guidance for Top of the Bench organisers
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Top of the Bench

Top of the Bench (TOTB) is a national chemistry competition for students aged 14–16 to promote practical skills and teamwork in chemistry. The competition is one of our longest-standing school engagement activities. With the support of our members, we have been organising and running this for more than 20 years.

The competition takes place in two parts during the academic year.

Regional heats
Regional heats are organised and funded by the RSC Local Sections. These run from September to January with the winning team from each heat progressing to the national final. The format of the regional heats varies across the regions, appropriate to each Local Section.

For the academic year 2022/2023, in line with RSC guidance for Member Networks the regional heats can be face-to-face events if they continue to comply with any local government requirements. A key message from us is that you ensure the competition you run is right for your Local Section and for the schools in your area. It maybe that you continue to run your competition virtually.

National Final
The national final is organised by the RSC and held in spring each year. Due to COVID-19, the finals in 2021 and 2022 were either virtual or remote events. The current plan is to run a face-to-face event in March 2023 should government guidance allow.

Examples of written and practical papers from previous national finals are available to download from the Top of the Bench webpage. You may share these with schools should you wish.
**TOTB rules**

1. Schools cannot enter more than one regional heat competition.

2. Only schools located within the Local Section can enter the Local Section’s regional heat (a Local Section/postcode look up table can be found [here](#)).

3. The teams should have 4 students with the following composition:

<table>
<thead>
<tr>
<th>Country</th>
<th>Year Composition</th>
</tr>
</thead>
<tbody>
<tr>
<td>England and Wales</td>
<td>Two students from Year 9</td>
</tr>
<tr>
<td></td>
<td>One student from Year 10</td>
</tr>
<tr>
<td></td>
<td>One student from Year 11</td>
</tr>
<tr>
<td>Scotland</td>
<td>One student from S2</td>
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<tr>
<td></td>
<td>Two students from S3</td>
</tr>
<tr>
<td></td>
<td>One student from S4</td>
</tr>
<tr>
<td>Northern Ireland</td>
<td>Two students from Year 10</td>
</tr>
<tr>
<td></td>
<td>One student from Year 11</td>
</tr>
<tr>
<td></td>
<td>One student from Year 12</td>
</tr>
</tbody>
</table>

4. Students must be in these school years for both the regional heat and the national final.

5. The winning team from the regional competition should be the same team that enters the national final.

6. Teams should be broadly representative of their school’s gender balance.

7. Students must not have taken part in previous TOTB competitions. In extraordinary circumstances please contact TOTB@rsc.org if this rule restricts schools in your Local Section taking part. With advanced permission from the RSC flexibility with this rule may be possible.

8. For safeguarding reasons all communications should only be with a teacher, not direct with students. The teacher is responsible for the support and safety of their students, and it is very important that students taking part in the remote competition are supervised by their teacher.

9. Schools cannot be penalised if they prepare their students for the competition.

10. Any suspicions of cheating must be discussed with RSC staff (TOTB@rsc.org) before approaching/disqualifying the school.

11. The correct answer is that which is written on the mark scheme.

12. The competition organiser’s decision is final.
Planning your regional heat

Date
Regional heats should be run between September and the end of January. The closing date for submitting school entries to TOTB@rsc.org for the national final is the 31st January 2023.

Format
For the academic year 2022/2023, in line with RSC guidance for Member Networks the regional heats can be face-to-face events if they continue to comply with any local government requirements. Regional heats may also be remote or hybrid at the discretion of the organiser to best support the needs of the local section and regional schools. We will continue to consider the needs of those who may be vulnerable and for those who have particular concerns and needs, and we recommend that groups consider appropriate measures as part of their risk assessments.

Our members have run various virtual competitions including:

- Online quiz
- Live quiz
- Poster competition (with/without audible description task)
- Practical challenge carried out in individual schools
- Virtual practical challenge
- Assessment of online experiments and name the lab equipment

Using online meeting platforms eg Zoom or Microsoft teams
To make your online competition more secure we would advise that you familiarise yourself with your chosen platform ensuring that you have the correct settings enabled/disabled so only the meeting host can share the screen. It is recommended that for platforms with the capability to create a password and/or set up waiting room to control access to the meeting that these features be used.

We ask that no videos or images are shown of the students, and it must be made clear to the teacher that they must not enable their video during the call. We also ask that you do not record and store the meeting which, as well as safeguarding concerns, raises GDPR and consent issues. As a further safety check, when setting up these meetings please ensure camera settings are turned to off for the start of the meeting where there is the facility to do so. Similarly, if there is the facility to do so, please lock the meeting once the session has started.

It is important that the online meeting is initiated by the teacher, using the teacher’s account and the teacher is present to supervise the students in the school/appropriate setting. It is not appropriate to share the meeting details directly with individual students, or for them to join unsupervised.

To ensure equality of opportunity and prevent lack of access to this technology in the home environment being a barrier, students must join the meeting in their school/appropriate setting. We would also advise checking with all schools you are inviting to your heat what their school's policy is on using the chosen meeting platform.

Running a competition involving live streaming
Live streaming using a platform like YouTube is also acceptable provided all volunteers involved are happy for this to take place and feel comfortable with the technology that is being used. This could take the format of a host giving a presentation and then running a quiz. The students could then submit their answers live using an online form (e.g. Google forms, or if that was not possible they could email their answers back at the end of the quiz for marking). This could work well but do bear in mind potential challenges this may bring for schools if their internet connection lacks sufficient bandwidth or for schools that may not be able to stream certain content.

Running a ‘non-live’ competition
A non-live competition may work very well for some Local Sections where teachers may struggle to engage with a live competition that has a set date and time. A pre-recorded video of quiz questions or question paper for students to sit or a quiz for the teacher to run themselves will allow a teacher to select the time for the competition that fits with the school timetable. Local Sections may wish to consider whether they have a timeframe for the competition to run in (eg 6 weeks) and whether they wish the
teacher (provided teachers are happy to have more involvement) to mark the competition or answers to be emailed back to the Local Section for marking. This would give more flexibility to the teacher to fit into their timetable and might help with engagement from schools who have not previously taken part due to the challenges involved in attending an event out of school hours.

Running a competition involving an audio recording of students (eg students presenting a poster)
Providing it is made clear in the competition joining instructions that it is voices of the students only (no images) and the students are not identified by their name, this would be acceptable for a remote regional heat. Consent would be needed, and the teacher will need to confirm that the voice recording does not identify any students. Alternatively, a competition could involve producing an animation using graphics.

Using online quiz platforms
There are many online quiz platforms available and some of the more commonly used ones include:

- Kahoot is a game-based learning platform where you can create an online game or multiple-choice quiz which can be hosted live or shared with the school as a non-live competition. More information about Kahoot can be found here

- SmartSurvey can be used to create online surveys and forms which would give the options of free text, not just multiple-choice questions. More information about SmartSurvey can be found here

- Google forms is a survey tool which could be used to create a quiz with different question options. More information about Google forms can be found here
Venue contracts

RSC interest groups and local sections organise many successful events each year. We ask volunteers organising face-to-face events such as TOTB to assist with ensuring a venue hire contract is in place if the venue has any booking terms and conditions.

TOTB organisers will need to complete the contract form and return this with the venue contract and any terms and conditions to networks@rsc.org. The RSC legal team will then review the contract and arrange for this to be signed by the RSC. Please note member network volunteers cannot sign contracts on behalf of the RSC. It is important to give as much time as possible for contract negotiation (a minimum of 8 weeks) before promoting your TOTB competition.

1. Do all face-to-face TOTB competitions need a venue contract?
   If the venue where you are holding your competition has any booking terms and conditions, this constitutes a contract and therefore needs to be approved by our legal team.

2. Why does the RSC need to review the venue contract?
   We must review the contract to protect our volunteers and ensure the event is covered by the RSC’s public liability insurance.

3. Do Local Sections need to ask the venue for a contract even if they have not had one for a previous TOTB competition?
   Organisers will need to ask if there are any terms and condition associated with their use of the venue (particularly linked to insurance and liability). We can then assist in producing a contract and arrange for it to be signed by the RSC.

4. Do Local Sections need a contract if they are not being charged for the venue?
   Yes. The contract review process is not linked to the financial value of the activity, but to the insurance and liability of any terms and conditions.

5. Do Local Sections need a contract if their TOTB competition is taking place in their own university labs?
   There needs to be clarity on who is responsible for the insurance and liability in the case of something going wrong. Organisers will need to ask if there are any terms and condition associated with their use of the venue (particularly linked to insurance and liability). We can then assist in producing a contract and arrange for it to be signed by the RSC.

6. What name and address should be on the contract?
   All contracts must use RSC, Burlington House, Piccadilly, London, W1J 0BA. No contracts can be signed in the name of the interest group or Local Section.

7. Why does the RSC have to sign the contract?
   We ensure RSC staff sign the contract to protect our members from inadvertently becoming personally liable for any damages or loss. Members are not authorised to sign any contracts for RSC activities. We will ensure the contract is signed by the appropriate member of staff.

If you have any questions about venue contracts, please contact TOTP@rsc.org
Support for Local Sections
Planning and organising the regional heat should not be a laborious process. We are here to support you if you need any assistance.

Financial support
If a Local Section requires financial support to run their regional heat, they are welcome to apply to the Outreach Fund. This fund provides financial support to members, individuals, and organisations in order to enable them to run chemistry-based public and schools engagement activities. Full details about funding categories, eligibility, criteria, restrictions and deadlines are available on the Outreach Fund website. Please note, the Outreach Fund is competitive and funding for a regional heat is not guaranteed. If you have any further questions about the Outreach Fund please contact outreach@rsc.org.

Promotion
Your regional heat should be advertised on your Local Section events page and your local Education Coordinator can promote your regional heat through their newsletters or local teacher events. Please contact TOTB@rsc.org to organise this route of promotion.

Resource bank
To help support our Local Sections there is a regional heat resource bank held on the RSC internal network which contains contributions from our Local Sections from their previous face-to-face events. Should a Local Section require any ideas for their regional heat please contact TOTB@rsc.org and we will search the collection on your behalf and provide, by email, the appropriate resource. Please be assured, to avoid any teachers or students being in possession of your resources, we will only take a request from a member who is involved in TOTB. If there is any doubt, the TOTB organiser will be contacted to confirm the request. We ask that the resource bank is not shared with any teachers or students. As a disclaimer, we will not be undertaking any quality assurance of the resources and when these are shared it will be made clear they are from the named Local Section and not created or moderated by staff. Please note, this resource bank was collated when the regional heats were run face-to-face and the resources may need adapting for a virtual event.
Inclusion and Diversity

As representatives of the Royal Society of Chemistry, it is expected that Local Sections uphold our values of inclusion and diversity. Chemistry should be for everyone, and we are committed to promoting and supporting inclusion and diversity across our education activities. Further details about our inclusion and diversity strategy as well as the Diversity data report 2020 can be found on our website. In 2020 we also launched the findings from our Chemistry for All outreach study looking at the learnings from five years of outreach to widen participation.

In the past it has been identified that a lack of diversity of the students taking part in the TOTB competition needs addressing, in particular, the low number of state schools participating and the gender imbalance in the national final. We understand that the demographic of the winning school is not in our control, however we believe that through positive action a more diverse range of schools and students can be encouraged to take part in the regional heats, potentially resulting in a more balanced representation in the national final. Understanding who is taking part in the TOTB competition through data collection is the first step to improving inclusion and diversity.

Gender

To address any gender imbalance, we would recommend that Local Sections invite schools to submit teams that are broadly representative of their school’s gender balance.

School type

To address the imbalance of school type in the competition we would recommend that Local Sections have a proportional representation based on the local school landscape and where necessary encourage more state schools to enter their regional heats.

Attracting a broader range of schools to enter a TOTB regional heat can be a challenge, especially if historically the same schools have always entered. Below are some ideas for overcoming some of the barriers to participation as discussed in the TOTB member session in June 2022.

- Our Education Coordinators may be able to promote TOTB competitions in their local newsletter which is sent to all Teach Chemistry schools in their area.
- Consider running your event at a suitable time to avoid teachers missing teaching time or suggest students are accompanied by another suitable adult, such as a technician or parent helper, to reduce the burden on the teacher (this must meet the schools safeguarding requirements).
- Consider running a remote event for schools in rural areas to make it more inclusive. A practical activity run in the school might work well (with the offer of the school keeping the kit).
- Consider how the event is advertised – is it advertised in the way that state schools will want to take part? (Is it ‘for them’?)
- Contacting state schools and getting interest from state schools may be addressed by sending personal invitations with information about the event. A list of schools in your area can be found using the website www.schoolswebdirectory.co.uk.
- Independent or grammar/selective schools filling up places first may be addressed by having a phased invitation process where state schools have priority registration, or you may wish to reserve places for state schools.

Disability and adjustments/assistance

A student’s disability or the requirement of adjustments/assistance should not be a barrier to participation in the competition and everyone should have the opportunity to take part. Local Sections are encouraged to communicate that their event is accessible to all, and they can accommodate disabled students and students who require adjustments/assistance. Should you need advice please contact TOTB@rsc.org.
Diversity monitoring
To ensure we are providing equality of opportunity and that the competition embraces inclusion and diversity, we would be grateful if you could complete and return the regional heats monitoring form in Appendix I (this is an excel spreadsheet that can be cut and pasted directly into an email) along with details of the winning school. Please note we do not need names or dates of birth of the students. **Collecting this data is not compulsory and schools do not have to provide any details if they do not wish to.**

Running an inclusive TOTB competition checklist

**Organising committee**
- Use a diverse team of individuals for the organisation of an event to provide balanced views and reduce the risk of any unconscious bias

**Invitation and Registration**
- Make sure all TOTB marketing materials represent the diversity of our community, thinking about language and imagery used and being careful not to perpetuate any negative stereotypes (such as the competition is only for certain schools or students)
- Consider advertisement of the event – have all schools been included in the Local Section?
- Provide information on accessibility offered
- Ensure the event registration is inclusive and considers all potential registrants
  - Request information for adjustments/assistance (eg large text resources required)

**Participants**
- Collect diversity monitoring data and send to TOTB@rsc.org

A more detailed guide to running an inclusive event can be found on the [RSC website](#).
Health and Safety
Risk Assessment
Hazards and risk must be considered, assessed and managed for all events run on behalf of the Royal Society of Chemistry which includes TOTB competitions. Please see our risk assessment for events webpage for information regarding risk assessments and how to complete the appropriate documentation for your event.

During Covid-19 we asked that you did not run a competition that involves posting hard copies of documents and all communication with the schools was done electronically. To align with the RSCs sustainability aims, we strongly suggest continuing communication in this way.

Safeguarding
All TOTB competitions comply with the RSC safeguarding policies and procedures. It is very important that students taking part in the competition are always supervised by their teacher and the teacher is aware they are responsible for the support and safety of their students. It must be made clear when inviting schools to take part in the competition (and any further communications) that contact by email or phone should only be with a teacher, not direct with students. For safeguarding reasons, you must not run a regional heat that involves any photos/videos being stored on a member’s personal device.

Further safeguarding information for member networks can be found in the under item 8.3 of Rules for Member Networks of the Royal Society of Chemistry.

The RSC’s safeguarding policy, safeguarding procedures and processes and safeguarding incident/concern form are available on our website. If you have any questions regarding safeguarding, please contact the Designated Safeguarding Officers, safeguarding@rsc.org.

GDPR
Please consider what information is appropriate to ask when registering students for the event and ensure you are not collecting any unnecessary data, for example only the year group of the students is needed, not their date of birth. Local sections can use an existing list of email addresses to contact schools about their TOTB competition. It is also possible for you to store contact details to invite schools to future TOTB competitions. You will need to include the sentence below in your communications to ensure the schools understand how they can be removed from your mailing list:

The Royal Society of Chemistry will contact you regarding future Top of the Bench competitions. None of the data we maintain for Top of the Bench will be used for marketing purposes or shared with third parties. If you prefer not to hear about future competitions, please let us know by contacting [insert Local Section email address]
### Timeline and key dates

<table>
<thead>
<tr>
<th>Now – September</th>
<th>Plan regional heat event.</th>
</tr>
</thead>
<tbody>
<tr>
<td>September 2022 – January 2023</td>
<td>Regional heats</td>
</tr>
</tbody>
</table>
| Following the event and no later than **31 January 2023**: | TOTB organiser/Local section will need to submit the form in Appendix I to TOTB@rsc.org. This information includes:  
  - Winning school name  
  - Teacher name and email address  
  - Date and format of your regional heat  
  - Diversity monitoring information of schools that entered  
  
  Local Sections that miss this deadline of 31st January 2023 may forfeit their winning team entering the National Final. |
| Early February 2023 (or before if school details have been provided) | The RSC will contact all schools providing details of the national final and how to register |
| 25th March 2023 | National Final, University of East London |
Appendix I: Top of the Bench regional heats form (please return to TOTB@rsc.org)

Local Section:

Date(s) of competition:

Format of competition:

Winning school:

Winning school contact and email:

Regional heat information

<table>
<thead>
<tr>
<th>School name</th>
<th>Postcode</th>
<th>Has the school entered before? (Y/N)</th>
<th>Student</th>
<th>Gender</th>
<th>Disability$^1$</th>
<th>Do you require any adjustments or assistance?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Which of the following best describes your gender?</td>
<td>Do you self-identify as a disabled person as defined above?</td>
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<td></td>
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<td></td>
<td>• Boy</td>
<td>o Yes</td>
<td>o Prefer not to say</td>
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<td>• Girl</td>
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<td>• Non-binary or Gender Diverse</td>
<td>o Prefer not to say</td>
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<td></td>
<td>• Prefer to self-describe (please describe)</td>
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</tr>
</tbody>
</table>

$^1$ The Equality Act 2010 defines a disabled person as someone who has ‘a physical or mental impairment which has a substantial and long-term adverse effect on their ability to carry out normal day to day activities.’ For example, this can include diabetes, learning difficulties, hearing or speech impairments, arthritis, heart problems, depression, epilepsy etc.
<table>
<thead>
<tr>
<th></th>
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<th>• Prefer not to disclose</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>School 1</strong></td>
<td></td>
<td>Student 1</td>
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<td></td>
<td></td>
<td>Student 2</td>
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<td>Student 3</td>
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<td><strong>School 2</strong></td>
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<td></td>
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<td>Student 4</td>
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</tbody>
</table>