The Royal Institution
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Masterclass network

Online Masterclasses: Handbook for Organisers

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1 Introduction

This handbook introduces online Masterclasses covering safeguarding guidelines, critical for operating safely with school students online; planning a safe online series and the logistics of running online workshops; and a focus on how individual online sessions tend to operate.

What are online Masterclasses?

Online masterclasses have students accessing a live Masterclass hosted on a video conferencing platform by signing in from separate locations or devices, possibly at home or in

their own school. There may be the option for them to interact directly via their camera, mic or chat-box.

Masterclass activities, online or otherwise, should always be **interactive** and **involve students from multiple schools**. If you are unsure how to meet these requirements, please speak to the Masterclass team.

Why move your Masterclasses online?

Online Masterclasses allow us to reach many students that we would otherwise not be able to, be that for pandemic, accessibility, or remote geography reasons. They are not as 'immediate' as face to face - you will probably experience a perception that there is low engagement from the students, even if that is not the case.

When you first decide to run online Masterclasses, you will need a bit of time to set them up safely and work out how to optimise them. They also cannot overcome the problem of digital poverty, so always be mindful of this when you are deciding which type of activity to offer.

This handbook is for Online Masterclasses only, not Livestream or face-to-face

Safeguarding statement

The safeguarding guidelines in section 2 of this document form the key part of the agreement between the Ri and Masterclass organisers and *must* be followed for any online activity. Where this guide contradicts any of the existing Masterclass handbooks, this document takes precedence for online activity.

It is important for everyone to refresh their memory on the safeguarding aspects of running online Masterclasses even if they are experienced organisers and supervisors.

What is the difference between online Masterclasses and Livestreamed Masterclasses?

Some Masterclasses operate by livestreaming sessions into classrooms in multiple schools simultaneously. The teachers all access the video conferencing session at the same time and support their classes who watch the livestream and undertake the activities. The teachers oversee how the students interact with the presenter, and the students do not access online chats themselves or log into the call on individual devices. Because livestream Masterclasses are in-school activities, it doesn't require many of the safeguarding elements that online Masterclasses do such as monitoring online chat, supervision of breakout rooms, etc.

Ri Masterclass resources – access via Ri webpages

Organiser resources webpage - view and download the documents for running Masterclasses https://www.rigb.org/masterclass-organiser-resources
Dedicated webpage for contributors - supporting materials for Masterclass supervisors, helpers and speakers. https://www.rigb.org/masterclass-contributor-resources

Off the shelf resources: https://www.rigb.org/learning/activities-and-resources?type=30 (mainly primary maths, but aiming for secondary resources soon)
For newcomers, you can point them to our get involved page for more information. The Ri Masterclass team will work with new volunteers (organisers/supervisors/speakers), providing support and training to get them up and running https://www.rigb.org/learning/ri-masterclasses/get-involved-ri-masterclasses
You can access the Ri Child Safeguarding Policy and supporting Child Safeguarding Procedure on our website, via QR code on adult register or in the Supervisor Pack sent by the Ri: https://www.rigb.org/policies/safeguarding-policies
Masterclass Code of Conduct for Face-face and online activities: https://www.rigb.org/ri-masterclasses-code-conduct

Documentation 'quick access' and risk assessment template …

You can use our Quick Access and RA template not only to build your own risk assessment for your individual series…

..but also as a quick reference sheet for the most important safeguarding, health & safety and data protection elements of running online Masterclasses.

Download a copy from the Organiser webpage

2 Safeguarding

We require all individuals associated with the Ri to:

- Share this commitment
- Understand that safeguarding is everyone's responsibility
- Safeguard the welfare of children and promote their wellbeing
- Work together with other Ri representatives, children and their families and relevant external organisations to help achieve the best possible outcomes for children and to protect them from harm
- Know what to do and who to speak to if they have any safeguarding concerns relating to a child or an Ri representative

- Be aware of and follow the guidance in the Ri's Child Safeguarding Policy and Procedure to recognise, respond to and report any concerns proactively and swiftly, no matter how minor or who is involved.

Everyone has a role to play in identifying concerns, sharing information appropriately and taking prompt action.
A child is anyone under the age of 18, regardless of any other status. If you have any concerns about the welfare of an adult, please refer to the Ri's Adult Safeguarding Policy and Procedure via the link on page 2.

2.1 Ri Child Safeguarding Procedure – explained for Masterclasses

Our safeguarding procedure supports and protects you as well as the children that we work with. It allows us to create a safe and secure environment for all, where safeguarding is paramount and inaction or silence around concerns of abuse or poor practice is not acceptable.

The Ri procedure covers who you should talk to about any safeguarding questions or concerns, how you should behave to create a safe environment, and the key steps in dealing with any concerns raised. These are referred to as the 4 Rs:

RECOGNISE a concern, disclosure or accusation Take these seriously and do not dismiss them Listen to everything being shared Do not ask leading questions or investigate	**RESPOND** appropriately Reassure anyone sharing a concern, disclosure or accusation that they are doing the right thing in speaking up Do not promise confidentiality	**REPORT** all concerns to the DSOs or appropriate responsible person ASAP Tell anyone sharing concerns that you will pass them on to the appropriate people to help keep everyone safe	**RECORD** all the relevant information This will be required so the DSOs can assess what to do, and in case concerns need to be passed on to external organisations

Following the Ri safeguarding procedure in a Masterclass

Initially, any safeguarding concerns or queries should be directed to the main supervisor during the Masterclass session, and then to the Masterclass organiser (unless this would be inappropriate, for example if they were somehow involved in the situation) and one of the Ri's Designated Safeguarding Officers (DSOs). If you are ever unsure, contact an Ri Safeguarding Officer or the NSPCC for advice.

A report form should also be completed as soon as possible and emailed to the relevant contact. This is available on the Ri child safeguarding policy webpage and all supervisors should be aware of how to access it.

Ri DSO contact details and phone numbers are on the main Ri safeguarding webpage, along with a link to the NSPCC help service, and in the safeguarding procedures. The DSOs have the general email address safeguarding@ri.ac.uk.

If your concern involves one of the DSOs in some way (either directly or if you do not feel your concern was acted upon properly), please contact one of the other responsible people – details for who to contact are listed on the main safeguarding webpage and in the safeguarding procedures.

2.2 Useful resources for online safeguarding

If you want to read more about safeguarding children online, NSPCC Learning has a range of resources to support you. These pages may be particularly relevant:

- Protecting children from online abuse - NSPCC[1]
- Social media and online safety - NSPCC[2]
- NetAware[3], run by the NSPCC, has a great selection of online safety resources as well as overviews of different platforms, apps and websites which you may wish to explore

While the safety of the children or young people we work with is paramount, so is our safety and wellbeing. Please ensure that you take care of your own well-being when exploring these issues. If you have any questions or want to discuss any of the issues raised, please contact the Ri Masterclass team or one of the Ri's Designated Safeguarding Officers.

3 Planning a safe online Masterclass series

3.1 Which online platform to use

You will have to tell us on your Organiser Agreement which platform you want to use for your series. As with all activity involving young people, safety must be the foremost consideration when choosing a platform.

From a safeguarding perspective, Zoom, MS Teams or Google Classroom can be used for Masterclasses. These provide good online environments which can be set up so that students cannot directly message (DM) each other, they can seek help from supervisors and there is very low risk of intruders joining the session. Any other platforms will need approval by the Masterclass team before use. Please see appendix I for additional considerations.

3.1.1 Make your platform safe to use

The minimum safeguarding requirements for the platform are:

Hosting and supervision

- There must be a way to block students from exchanging private messages with each other or any adult volunteers who are not DBS-checked supervisors.
- Students must have a way of contacting individual supervisors during Masterclass sessions to discuss any concerns, and vice versa.

[1] https://learning.nspcc.org.uk/child-abuse-and-neglect/online-abuse
[2] https://learning.nspcc.org.uk/safeguarding-child-protection/social-media-and-online-safety
[3] https://www.net-aware.org.uk/

Arrival

- The platform must block meetings from being started by participants before the hosts/co-hosts are logged in to start the meeting.
- The platform must have a way of controlling entry e.g. a waiting room.

Managing attendees

- Supervisors must be able to remove participants from the session if necessary.
- Students' personal details (other than their name) should not be visible to other participants.
- Students must be able to participate in sessions without having to turn on cameras or microphones if they do not wish to (even if this may give a reduced experience for them).
- Students must not have facility to record sessions.

3.2 Overseeing attendance

Consent

- All Masterclass groups running online events must obtain appropriate parent/carer consent and permission in advance using the Ri consent statements.

Safe participation – health and accessibility

Gather details on consent form and share with supervisors/speakers where necessary, for example some students may need:

- All flashing images to be removed from a presentation
- 1-1 support, so arrange for parent/carers to sit with them throughout. Provide adult with contact details of supervisors in case their child needs additional support or needs a break.
- Access to the material to work through at own pace (also useful for those struggling to access due to technology problems).

Joining instructions

- only send to attendees once appropriate consent has been obtained
- never share with anyone not due to attend
- include a copy of or link to the Ri Online Masterclasses Code of Conduct.

Student and adult registers

- Record a student register at each session – a supervisor could do this by noting attendance from the list of participants
- An adult register should also be taken (using the Ri Reporting Template spreadsheet) to maintain a log of attending adults.

Use of Waiting Rooms and student verification

- Enable this feature as a tool to manage behaviour and to allow organisers/ supervisors to verify joiners.
- Let the students know when the waiting room will be open in the joining instructions
- Students will 'arrive' in the waiting room and wait to be admitted to the main event. Supervisors should hold them here and check that those joining the meeting are the correct students (with consent), and that no additional people are trying to join.
    - It is best for this task to be assigned to specific supervisors; they will need to closely coordinate to avoid duplicating any verifications
    - It is advisable to have the waiting room open for 20-30 minutes before the session starts to allow students to be verified against the register; this time should be advertised in the student letters to help mitigate late arrivals.
    - Platforms generally allow individuals in the waiting room to be sent a message to check details, for example to verify their name if their screen name does not match an expected student name – many students may log in with a parent/carer name
    - It will be necessary to share students' details with supervisors in order for this verification to take place – please ensure that only the necessary details are shared, e.g. names but not contact details.
    - Note: It may be the case that some students need to sign in on more than one device for accessibility or technological reasons, but do not assume that additional users are legitimate – always ask.
- Organisers/supervisors should be able to temporarily remove participants from a meeting where necessary (e.g. to address a behavioural issue such as trolling or bullying). This is best achieved by moving them into the waiting room. Note that removing someone from a meeting entirely often means that they cannot re-join. It is often enough to just suspend the chat for minor misdemeanours such as spamming.

3.3 Overseeing behaviour using Ri Code of Conduct

The Ri Code of Conduct (CoC) outlines acceptable behaviour for all attendees – students, supervisors, helpers etc.

Supervisors and organisers have a duty to ensure that there is a safe and welcoming environment for all those involved, so deal with any breaches in the code of conduct (including disruptive, vindictive or offensive behaviour) as quickly as possible.

A student breaching the code of conduct does not need to be reported as a safeguarding concern, unless you are concerned that what they are doing or saying is linked to something which could be potentially harmful to themselves or others

Supervisors will need to ensure that the CoC is adhered to by sharing a statement such as the one in box below at the start of the session, especially in the first Masterclass (paste link to CoC in chat). Don't forget that Masterclass students generally are very well behaved so a 'light touch' should be enough.

Code of Conduct verbal summary - can simply be: "be kind and considerate, follow code of conduct, brevity and politeness in chat facilities please"
Code of Conduct notice for first session – supervisor can post this message: Being part of the Masterclasses means being kind and respectful to everyone, making sure everyone is included. Try not to use the chat too much (in other words, don't spam the chat), so everyone has space to have their say. Don't give people your personal or contact details. Don't share anything belonging to others without their permission. If you are worried about anything, you can message one of the supervisors [give contact details, provide a non-personal email address]. The Masterclasses Code of Conduct is here if you need a reminder: [insert CoC link – section 1] To turn on subtitles, press the [cc] button in the menu [or equivalent for the relevant platform].
Code of Conduct violations - see next section for more details ○ If a student breaks the code of conduct, you may remove them from current and future sessions and inform their parents/carers and teachers ○ While you encourage students to say hello and introduce themselves, excessive spamming of text chats is a violation of the code of conduct and will result in chatrooms being closed.

Your supervisor must know how to deal with students sharing concerns or issues privately:

- Sometimes a student may feel uncomfortable about something which you have not noticed or not yet dealt with. They may bring this up in the chat, but more likely will want to raise it privately.
- **If any student sends a supervisor a direct message for any reason, the supervisor must keep a record of this (e.g. save the chat, screenshot or photograph the screen) and send it to the appropriate Masterclass organiser, who should then keep a secure record for future reference. This might need to be sent to Ri if the organiser needs to report any safeguarding concerns.**

3.3.1 Students violating the Code of Conduct

Extreme behaviour

In the unlikely situation where a student is violating the code, your supervisors will need to give a verbal warning and may choose to remove them from the current and future sessions, if the violation is serious enough. Their parents/carers or teachers should be informed of their conduct in this situation – telling the students that this is this end point is usually enough to stop their behaviour.

Supervisor moderation

Be alert for anything which would violate the CoC in the chat, participants' video or audio feeds (e.g. backgrounds), usernames etc. Students may also message you privately if they have any concerns.

- someone posting unacceptable content in a text-based chat group. The relevant content should be deleted if possible, and the student directly messaged to be told to stop.

Privacy

You should ensure that **no personal details are shared** – this includes anything which could be used to contact someone individually, such as contact details, social media handles, gamer tags, etc. Most cooperative games, streaming/video services and social media have a private chat function.

- Note: Some game codes are series of seemingly random letters/numbers - treat these the same as other personal data (try not to bring attention to them).

Dealing with moderate CoC transgressions

If something which breaks the CoC has been shared, try not to bring attention to it as this can cause additional distress among the other participants.

- If it is in the chat, delete it if possible or ask the person responsible to delete it if you cannot do so. Some platforms do not offer this functionality. Explain why it is not appropriate (it is usually best to do this in a private message so that you are not drawing attention to whatever has been shared). This also applies to any links or other media shared.

- If it is in a username, ask the meeting host or the student (depending on settings for the platform you are using) to change it. You can move students to the waiting room if you cannot make this change quickly enough, as their name will then not be able to be seen by other participants.

- If it is in a video or audio feed (or in the video background), turn off the camera/mute the microphone of the participant in question and message them directly to ask them to remove or change whatever is needed. NOTE: Typically, meeting hosts and co-hosts can mute or turn off other users' microphones and cameras but cannot turn them back on again. Only the user themself is able to do that.

- If someone is being deliberately obstructive (e.g. spamming/posting too frequently) or being vindictive, you can immediately move them to the waiting room and/or ask the meeting host to remove them from the meeting.

- If a student has sent you a direct message saying they are uncomfortable about something which has been said or shared, or the way someone else is behaving, assure

them you will deal with it sensitively and verify what has happened/is happening and act according to the above guidelines for code of conduct violations. Do not bring further attention to the issue publicly unless it is appropriate to do so (e.g. changing the topic of conversation), and make sure you do not specify the identity of anyone raising a concern. If you need advice, ask the Masterclass organiser, again in a private message.

- On occasion, discussions may bring up strong viewpoints. Supervisors will need to keep an eye on the discussions to ensure that no-one is being targeted because of their views. To help students be inclusive, encourage them to challenge the statement or the viewpoint rather than the person presenting those views.

3.4 Attending adults

All adults attending your Masterclasses (organisers, supervisors, helpers, invited speakers, invited stakeholders or Masterclass contributors in training) must be logged on the adult register and be given the CoC.

Anyone new to working with school students, should be given a brief safeguarding induction covering:

- no photography/video recording is allowed at any time
- provide access to Ri Safeguarding policy and tell them to report anything of concern
- no direct messaging students

Access guides for all attending adults, including supervisors via link in section 1.

Section 4 gives more guidance on running each individual online Worksop – assigning roles to attending adults and a useful checklist.

3.4.1 Supervisors

There must be at least one DBS-checked* supervisor in the session, including one in each breakout room, at all times.

Breakout rooms

- If possible, when using breakout rooms, a supervisor should stay in the main session room so that students can leave breakout rooms and ask for help if required.
- If you have fewer supervisors than expected, reduce the number of planned breakout rooms so that none are without supervision.

Messaging

- Have a way for supervisors to privately message each other in case they need support from the lead supervisor or speaker
- No students should be contacted directly by any individual outside of a Masterclass session – students should be contacted via parents/carers.

- During Masterclass sessions, DBS checked supervisors/organisers should have a method of contacting students directly to resolve any issues. No-one without a verified DBS check should be able to send private messages to any student, and students should not be able to send any private messages to anyone other than the DBS-checked session leaders/helpers.
- Anyone who is co-hosting an online activity and/or has the ability to send private messages to any student counts as a supervisor and MUST have their DBS status verified. If screen sharing etc. is limited to co-hosts, and a speaker cannot undertake the verification step for any reason, then one of the supervisors will need to take over any screen sharing/running polls/etc. on behalf of that speaker.

Privacy and sharing details

- No-one should share personal contact details (including social media accounts or gaming codes, etc) with the students.
- Students should not be allowed to share links or other files within the session unless they are relevant resources for the Masterclass, in which case ask them to send to a supervisor first to check content before sharing with the group.

3.4.1.1 DBS Verification

*Terminology: "DBS check" is our catch-all term and includes (dependant on region): DBS checks, PVG certificates or Access NI checks. All MUST be verified by the Ri in advance of any online Masterclass activities.

Masterclass supervisors for all online Masterclass activities must have their DBS check verified by designated Ri staff (dependent on region, this may be a DBS check, PVG certificate or access NI check).

- DBS Verification is undertaken once the Masterclass organisers have confirmed who will be acting as supervisors for any online Masterclass events. Please make sure you supply the Ri with the contact details of all supervisors well in advance of your Masterclass start date.
- Renewal of this verification will be every four years, so some supervisors may already be verified.

One of the following Ri staff members will contact each supervisor via email with an explanation of the verification process: the DSO, deputy DSO or a Masterclass Programme Coordinator. There are several options for DBS verification:

- The supervisor will be asked to provide details for one of the above Ri staff members to interrogate the DBS update service, if they have signed up.
- The supervisor can send the relevant member of Ri staff a scanned copy of their DBS check
- If a supervisor is a current teacher, their DBS status may be able to be verified via their school's safeguarding lead

Any disclosure details recorded on the DBS check will be kept in strictest confidence by the Ri staff member undertaking the verification and the safeguarding team. Verification must take place before the supervisor supervises any Masterclasses.

Should anyone refuse the verification, the Ri will expect the group in question to replace them with a new supervisor whose DBS can be verified. If a supervisor cannot find their DBS documentation a new check can be carried out, but this will require and ID check with the DSO or deputy DSO.

3.4.1.2 What to keep as safeguarding records

- Supervisors must save a record of their chats, including any direct messages with students to address any issues or ask questions etc. This must be sent to the Masterclass organiser following each session, or if this not appropriate, to the Ri Masterclass team or an Ri safeguarding officer if a safeguarding concern has been identified.

Organising committees often designate one person as their main safeguarding lead, and this person is responsible for overseeing the records from online meetings liaising with the supervisors to ensure this is undertaken. This would include:

- copies of student and adult registers,
- text-based chat threads, in particular, any direct conversations between students and supervisors.

3.5 Accessibility

- Share requirements with speakers in advance: Ensure that students' accessibility requirements are shared with the relevant people (e.g. speakers) in plenty of time before the Masterclass sessions, but maintain confidentiality – for example, speakers can be made aware that one or more of the students is colour-blind or has photo-sensitive epilepsy and make the necessary adjustments to their material without being given information on exactly who that is.
- Factor in regular breaks: Many students may need to take breaks if they become overwhelmed or if something in the meeting does not go to plan – have a clear procedure in place (e.g. A parent/carer messaging one of the supervisors to notify them, and the student taking a break away from the screen in another room until they are ready to return, at which point the supervisor may be able to fill them in on what they have missed in a private message). A record should be kept of any occurrences.
- Subtitles and accessibility aids: If a student requires subtitles or additional functionality not provided within your chosen platform, check with your organisation if there is a service they use. If not, speak to the Ri Masterclass team who may be able to help.

3.5.1 Inclusive language and Useful phrases

Please ask if there is anything in the CoC that you are unsure of (for example, what might constitute ableist language); you can contact the Ri Masterclass team on masterclasses@ri.ac.uk.

If you know you tend to use certain words or phrases which we have asked people to avoid, pick an alternative and keep that in mind to use instead (common examples are "guys" or "ladies and gentlemen" as a catch-all for people of all genders, which is exclusionary for some people – try using "everyone", "folks" or similar).

Here is a list of useful phrases your supervising team can copy and paste in chats to help moderate behaviour:

- This language/statement is not appropriate/is offensive and violates the Code of Conduct you agreed to for this event
- Just sending a reminder to all students that no personal details can be shared at this event
- Please do not share links in the chat. If you want to share an interesting or relevant resource, send it to a supervisor who can review the link before posting it for other students to see
- Please do not spam the chat, it makes it difficult for other students to participate in the Masterclass
- This has gone off-topic – please keep your discussions relevant to the Masterclass
- Just sending a reminder to all students that violating the Code of Conduct may result in us having to remove you from the event
- You have been moved to the waiting room due to inappropriate language/comments/spamming/content sharing. We would like to remind you that the Code of Conduct is: [ADD LINK]. Please take a few minutes to re-read this and if you agree to abide by it we will give you another chance to re-join the session.
- You have been removed from the Masterclass due to inappropriate language/comments/spamming/content sharing. We will be in touch with your teacher and parent/carer to inform them of your behaviour and let them know whether you will be able to join future Masterclass events.

3.6 Photography, press releases and social media

Saving video recordings of Masterclasses

The video output of Masterclass sessions should not be recorded/saved, and no pictures or screenshots taken of the sessions should include participants or their details (e.g. video feeds, names, audio). If your organisation requires you to save video recordings for their own safeguarding protocols, please contact us ASAP – a special Joint Data Controller Agreement will need to be arranged by the Ri team.

Press releases

If your Masterclass group is creating a press release or any other marketing material, you must avoid giving details which could lead to the identification of any students. The following list includes personal information which may aid in identifying students; you should never share two or more of these pieces of information together:

- First name
- Surname
- School name or logo
- Town or village of residence
- Age
- Association with other identifiable (e.g. famous) people

Sensitive personal details (e.g. health information) should never be shared.

In addition, specific written consent should be obtained from parents/carers prior to any of the following being released for publication or released to the press, a journalist or any other professional:

- Student names (even first names) along with the name of the school they attend
- Any kind of immediately identifying information such as telephone number or email address

Social media

If you plan to promote your Masterclasses on social media, please refer to Appendix III, including the safeguarding responsibilities you have that extends to social media use.

4 Logistics of preparing Your Series

Teacher and parent/carer communications should be done using the standard Ri Online Masterclasses letter templates, available on the Online Masterclasses webpage (see Section 1).

Appendix II has further details about how to run individual online masterclass workshops – including assigning roles, top tips and a checklist to help ensure you remember to go through the correct procedures during the live sessions.

4.1 Testing your platforms

Run a test session before your series starts. Invite supervisors and some willing volunteers - a member of the Masterclass team may also be able to join you and offer advice and additional support. Ensure:

- Your supervisors know how to use all the relevant tools for safeguarding and content moderation
- You have tested all the features that your activities rely on (screen sharing, moving students to breakout rooms, use of polls, etc.)
    - Check that the features are correctly set even if you have used the platform before (some platforms such as Zoom reset features during upgrades). Investigate any new features created by upgrades in case they need to be switched off to avoid safeguarding issues.
- You have tested the functionality of your chosen platforms on different device types (PCs, tablets, mobile phones)
- Someone in your team has tested the student pathway (test the joining instructions – how to join all events; do they need to sign up for an account in advance; viewing / participating in a brief example of an activity)

- Have a go at troubleshooting - try to 'break' the system so that you can troubleshoot any emerging issues.

Keep a note of any potential mistakes/key info to share with the students to give them a good experience – e.g. the 'leave breakout room' button being very close to the 'leave meeting' button on Zoom, or how to raise hand/post a reaction.

You may choose to also run a short pilot activity – an online workshop that replicates the form of your Masterclasses. This can help as a training session for your supervisors and speakers.

4.2 Series structure

Length and structure of online Masterclasses - no longer than 1.5 hours,

They should be shorter than face-to-face Masterclasses. Activities may take longer than you expect on online sessions, so factor in longer timeslots scheduled for doing any activities.

Students sharing ideas – it can take a surprising amount of time for them to navigate the software to unmute and say something, or to share something over the camera. Think about ways they can contribute quickly that don't interrupt flow.

Include time for introductions/feedback and screen breaks.

Open the waiting room before the session starts – give enough time for students to be admitted against the register.

4.3 Working with speakers

Many speakers will be used to doing online teaching at school or university, but others will need additional support to adapt their material for an online Masterclass. The Ri Masterclass team is happy to support speakers to develop online activities.

Internet/technology challenges

If a student has challenges during the session, it can be very difficult to fix this for them. The best mitigation is for each speaker to have an email that summarises their session and provides links or attachments to resources. That way, students can work through it in their own time if missing any chunks of the session.

Student devices

Some students may be accessing the entire session on a mobile phone or tablet. You and the speakers will need to plan how you use your platforms, worksheets etc. accordingly, and do not assume that students can see online worksheets and your session screen at the same time.

Resources

Please note that many students will not have access to additional resources or equipment at home, including printers. Ensure that activities are designed so they can be completed with basic equipment – ideally, paper and pen/pencil, though it is likely that a secondary school student will also have a ruler, protractor, compass and calculator. Have alternative methods in case these are not available, or ask teachers in advance to check what students have access to.

If your speakers have worksheets with diagrams etc. work with them to find alternatives for students who cannot print them at home – can they draw the diagrams instead? As a last resort you can ask the nominating teachers if worksheets can be printed in advance at school and given to the Masterclass student to take home.

Working with new speakers

If they are new to running online workshops, encourage them to attend an online workshop prior to running their own and/or pair them up with a more experienced speaker to run the session. Schedule more experienced speakers at the start of your series and invite them to join those sessions or contact the Ri team for other ways for them to gain experience.

Encourage speakers to use online tools that students can access during the Masterclass – these provide an exciting element that cannot normally be utilised during face-to-face Masterclasses giving online Masterclasses that extra 'edge'.

Remind speakers that a normal mode of delivery can look a bit flat online, so try to be a bit more energetic to let their personality and enthusiasm shine.

4.4 Contingency Planning

Running Masterclass activity that is both online and happening during the ongoing pandemic brings with it some uncertainties that you will not have previously had to consider. While planning your Masterclass series, you may want to think about what contingency plans you can usefully put in place. These will depend on your particular circumstances, but all Masterclass organisers may want to consider:

- **Having some backup activity prepared**

If the speaker becomes unavailable at the last minute, or is having trouble joining the session due to technology problems, it's nice to have a backup activity for the students to do while they wait / in place of the planned session that you or an attending supervisor could present.

- **Having a short turnaround communications plan in place**

If participants are unable to join the Masterclass at the appointed time (e.g., if the platform you are using isn't working or you have been unable to set up the session for any reason) it's a good idea to have a plan for how to contact parents. Ensuring there is one person with access to the email addresses for the parents and responsibility for this kind of update is a good idea.

- **Having a backup for your own involvement**

If you are unable to run a Masterclass session, are there other people with access to the relevant account logins and register information? For many platforms, only the person who scheduled a

session can actually start a meeting, so you will need to have a backup if you cannot get online for any reason. This could be a shared account with another organiser, or some platforms allow you to assign an alternative host in advance of a meeting.

- **Have an alternative for students with access issues**

Typically, if a student misses a Masterclass there is not much which can be done. However, running sessions online gives greater scope for students to miss all or part of a session due to circumstances beyond their control, such as internet issues or technology failure. Are there materials you could send them after the class which help cover what they have missed? Work with your speakers to provide these where possible. Remember that you cannot record the sessions.

5 Evaluation

You can collect feedback for your series using online forms – there are several available options. You can use questions from the Ri evaluation forms already available for face-to-face events or contact us for access to an online form.

You may also wish to collect short sections of feedback during each session (one or two questions). Remember that if you are using in-platform polls you probably can't save these results. Be aware of evaluation fatigue – don't ask too much too often!

Appendix I. Online platforms - Additional considerations

If you have several options that satisfy these safeguarding concerns, there are a number of things that you may want to consider in choosing how to run your online Masterclasses.

The Ri Masterclass team should be able to assist with platform recommendations if required. If you have any good suggestions for platforms we could explore, and share (such as text-based platforms) please let us know.

- **Try to use as few platforms as possible throughout a series**

You may well need to use more than one platform for different aspects of a series (e.g. a specific interactive environment for the activities in a particular session, or a separate platform for students to work together or ask questions of the speaker). Avoid introducing too many new platforms as this makes life easier for you and the students (fewer interfaces for everyone to learn).

- **Choose platforms which are easy to access**

Does a platform require all participants to register? If so, how easy is this process? What information does registration require?

Does the platform require a download, and if so, what systems can it be used on? What features are available on the different systems? Does it have an alternative web browser option for those without the download?

Parents/Carers will need to register accounts for the students to use on any platforms where this is a necessity. The less complicated this is, the more likely that all students will be able to participate in the series. Platforms should be favoured that request minimal information during registration, for reasons of privacy.

If a platform does require registration or software to be downloaded, this MUST be free for students and their parents/carers to access.

- **Is the platform reliable?**

Do you have experience using the platform and/or do you know it to be reliable (to always be available and to operate with minimal disruption)?

Will the platform work well for all students? Masterclass students will be accessing the sessions on a variety of devices (computer/phone/tablet, different types and ages of operating systems, etc.); does the platform support all of these devices? Some students may have weaker internet connections – will this cause a problem? While this can be hard to judge, in general avoiding platforms with unnecessarily flashy interfaces or video content where it isn't needed is a good rule of thumb.

- **What accessibility functions does the platform have?**

Consider what accessibility functions are available for the different platforms. Are there ways to get information across in a variety of formats – visually, audibly, both video and text?

What features are available for students with additional needs, such as subtitles, compatibility with screen readers, or large text for in-meeting chat? Do you have to pay for these, and if they are required are you able to provide them?

- **What features does the platform have to safely enable interactivity?**

Using additional features can increase the interactivity of the session and create a richer learning experience. Are there:

- Chat facilities for students to answer/ask questions?
- Reactions and/or 'raise hand' tools to help them contribute their ideas?
- Polls/surveys, and if so what sorts of questions can you ask, who needs to set up the polls and who can launch them and see the results? Features such as whiteboards and slide annotations – and if so, are there the tools to ensure students cannot add inappropriate content anonymously? Will these features work on all versions of the software or be restricted to only some devices?
- Breakout rooms for smaller group discussions (assuming you can appropriately supervise multiple breakout rooms)?

Appendix II. Running an Online Masterclass Workshop

Top tip for Masterclass speakers As for face-face Masterclasses, we suggest the speaker has a timeline for the session and contingency plans to extend/reduce sections to keep the session on track.

Assigning roles

- You may wish to have an alternative chat group with the other meeting organisers/speakers so that you can discuss things behind the scenes.
- nsure that all organisers/supervisors are clear on what their roles and responsibilities are before the session – for example, who is admitting students, who is running and pools, who is doing introductions, etc.
- It is useful if the person currently talking is NOT the person responsible for managing the waiting room/running any behind-the-scenes activities/organising breakout rooms. This may mean that the meeting host functionality needs to switch between different people.
- The person assigned to admitting students could also be the person who sets up any breakout rooms, which would likely mean that this person needs to be assigned as meeting host. Please note that assigning rooms can be very time-consuming, but most platforms allow the same room assignments to be used for the duration of the meeting
- Nominate one of the supervisors (not the speaker) to have questions directed at them during any presentations, so that they can raise them with the speaker; it is difficult to both present and keep an eye on questions.

Masterclass session checklist

Before each Masterclass session, write a checklist of the things you need to share with the students, when they need to be said and who will do this. Ensure you cover the key points at every Masterclass in case students missed previous sessions.

At the beginning:	
Welcome the students.	
Introduce the adult volunteers.	
Give a brief summary of the session and what to expect.	
Tell the students how to access help if they need it.	
Remind them of the Code of Conduct – tell them that the sessions are for everyone, so they must be inclusive and welcoming at all times, including in the chat. Make sure they are using appropriate language and if they disagree with something, question the idea, don't challenge the person. This is not a competition and it is OK to make mistakes – no-one ever does anything perfectly all the time.	
Share the link to the Code of Conduct. Any late arrivals should be sent the link in a direct message.	
Explain that everyone should remain muted unless they are sharing something with the group to avoid echoes and other interference.	
Check students know how to unmute/mute themselves and remind them that they can turn off their video if they wish.	
Explain your expectations on how the chat should be used – for example, to answer questions posed by speakers.	
Check students know how to use any interactivity features you plan to rely on, such as 'raise hand' functions or reactions.	
Before breakout rooms:	
Tell the students what is about to happen, e.g. if they will be automatically moved or if they need to click something.	
Remind them there will be one (or more) supervisor in each room and where to go if they need help.	
Tell them what they are expected to do in the breakout session.	
Tell them what will happen at the end of the session (e.g. one-minute warming then automatic transferral back to the main room).	
At the end:	
Share link to your evaluation survey	
Tell the students what they should expect to receive following the meeting, if anything (e.g. additional activities they can do at home)	
Remind them of anything they need to know for any future sessions (e.g. dates, what to bring).	
Thank everyone, especially the speaker and students.	

Appendix III. Social Media Guidance

You may wish to promote your Masterclasses via social media or other avenues. Please note that no details of how to join the sessions should be shared.

You are not able to take any pictures or recordings containing any students, their voices or their personal information. However, you could still share images or short videos showing speakers' demos or slide content, with their permission.

Masterclass organisers should refer to Handbook 5 (Ri Masterclass Marketing Requirements – accessed via the Organisers webpage) for more information on their responsibilities regarding marketing and the Ri Masterclass brand, including use of our Masterclass logo for their Masterclass activities.

General Masterclass social media requirements

- Wherever possible, you should use the Ri Masterclass hashtag and/or tag the Ri in any Masterclass posts:
  Ri handle: @Ri_Science
  Masterclasses hashtag: #RiMasterclasses
- The @Ri_Science twitter account endeavours to retweet a small selection of Masterclass tweets that it is tagged in every month. Feel free to send us your Twitter handle and we'll arrange for the @Ri_science account to follow you.
- Please make every effort to credit/tag adult individuals and organisations featured in the content providing you have their consent e.g. the Masterclass speaker or host/organising institution. Please check with the speaker before sharing any of their materials or Masterclass content publicly.
- Where an individual or organisation uses social media to promote Masterclass activities, it should be made clear that any views expressed do not necessarily represent the views of the Royal Institution or any Royal Institution staff members. Many individuals who use social media to promote similar activities include a statement in their personal description to highlight that all views are their own.
- Use of Facebook and Twitter should be via personal or institution accounts. Standalone/regional 'Ri Masterclasses' pages or profiles should not be created, as this can cause confusion with other Masterclass groups and the main Ri brand.

Social media safeguarding requirements

- Masterclass volunteers should not send private messages or instigate/accept friend requests from students on social media.
- Students should never be tagged in social media posts.
- All social media platforms have a minimum age requirement for their users (often age 13, sometimes older). Students should never be encouraged to use a social media platform if they are under the required age for that platform.