



## Live Virtual Outreach Guide



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## Section 1: Introduction

The intent of this guide is to supplement the Let's Talk Science Outreach Volunteer Training Handbook to give you additional tools to engage youth through live virtual outreach activities.

**If you have not participated in Let's Talk Science Outreach Volunteer Training, please contact your site coordinator.**

Live virtual events are a great way to offer a similar level of interactivity for participants as an in-person event. In this style of event, the participants are interacting with the host as they are presenting, allowing for discussions and questions throughout.

Challenges associated with live virtual events include ensuring the online safety of youth participants and the technical support required to run an event, in addition to some of the same unpredictability that comes with in-person activities.

### Examples of Live Virtual Outreach Activities

- Guest speakers, presentations and webinars with Question & Answer sessions (e.g., guest speakers for an in-person symposium, storybook reading, or research presentations).
- Career or other panel opportunities including research discussions, special topics, etc.
- Interactive opportunities that would engage participants in a back and forth conversation with the presenter/host/guests. This could include leading participants through a hands-on activity that they complete during the virtual interaction.

Alternatives to live virtual outreach include creating on-demand videos or written content – other resources are available from the Let's Talk Science national office to support this type of work.

### Important Guidelines to ALWAYS Follow

**In all cases,** when creating and sharing virtual content (either live or on-demand videos), the following should be ensured:

- All activities must follow the Safe Activities and Presentations Guidelines (including wearing appropriate personal protective equipment at all times), and the Interaction with Minors Policy

(not being alone with minors, even virtually). These are located in the Volunteer Portal and the Volunteer Training Workbook.

- ☐ For demonstrations, include disclaimers such as “ask an adult for help and permission if you’d like to try this at home.”
- ☐ Ensure content aligns with the Let’s Talk Science Communications Guidelines. Online, even more so than in person, you are representing Let’s Talk Science in a format that can be saved, shared and spread widely. Our Communications team is available to help with branding, messaging, proofreading, etc. (contact the national office at outreach@letstalkscience.ca).
- ☐ All site coordinators and volunteers participating in virtual programming must ensure the following:
  - They are wearing a Let’s Talk Science t-shirt (and real pants - not pajamas!).
  - They have a neutral background without anything defamatory, political, religious, controversial or age inappropriate showing.
  - They avoid open backgrounds where other people may suddenly be visible.
- ☐ All volunteers participating introduce themselves as “Volunteers with Let’s Talk Science at [your post-secondary institution].”
- ☐ For promotion of events and sharing content, please connect with your site and/or regional coordinator if your promotion plans extend beyond your city/immediate geographical area.
- ☐ Volunteers cannot be alone with youth, even online. Make sure another adult is always present.

### **Outreach Site Promoted Events vs Nationally Promoted Events**

Most virtual events target a specific local group, but occasionally, some events may be promoted nationally.

Here are some examples to help you consider if your event is most suited for local or national promotion:

	<b>Outreach Site Promoted</b>	<b>Nationally Promoted</b>
<b>Audience</b>	Offered to a single group or to groups in the same community/geographic region (e.g., single classroom or community group) – could be in response to a specific request	Open registration (e.g., individuals and groups from across Canada can participate simultaneously)
<b>Language</b>	Based on the preferences of your local audience	Preferably offer options to participate in either Official Language (not mandatory)
<b>Timing of event</b>	Offered once in a single time zone	Offered at a time that is convenient for multiple time zones; offered at different times throughout the day; recording made available to be watched at a different time

Please contact and work with the national office in advance of your live event ([outreach@letstalkscience.ca](mailto:outreach@letstalkscience.ca)). This is particularly important if you would like promotional support as our communications team will be happy to work with you. For example, if you would like to open up your event to general registration, we may be able to feature it as an event on the national website.

Note that with 50+ Outreach sites across Canada, the Let's Talk Science national social media platforms will be unable to share, retweet and/or promote all opportunities and content equally across Canada.

## Section 2: Before the Activity

- ☐ Decide if your event will be open-registration or if it will be offered to a single group.
- ☐ Decide on the date and time of the live virtual outreach event.



- If the event is open-registration, consider time zones, lunch and transportation schedules, etc.
  - If the event is in response to an educator request, work with them on a mutually agreeable time.
- Identify the concept(s) you want to convey.
- Brainstorm some ways to convey the concept that are hands-on, age-appropriate and relevant for youth.
  - See if there are existing Let's Talk Science activities (check the resources available on [letstalkscience.ca](http://letstalkscience.ca) and the Hands-on Activities Database in the Volunteer Portal).
  - You can also check with your site coordinator to see what activity options may already exist locally at your Outreach site.
  - Refer to **Appendix 1** for Tips for Creating Virtual Outreach Activities if one does not already exist.
- Determine the method or platform for delivery.
- If the educator or contact is scheduling the event, they may have a preferred platform already in use at their school. Make sure they send you the connection details in advance of the meeting.
  - If you or your site coordinator are responsible for setting up the platform, you will likely be using a Let's Talk Science Zoom account. Make sure you have all relevant log in information and that the participants have the connection details (e.g., link to online session, passwords etc). If working with an educator, suggest a quick (~5 minute) practice call a day or two before the event.
    - Refer to the Guide to Zoom Outreach for advice on setting up a Zoom Meeting or Webinar to ensure the settings are as secure as possible including appropriate settings for sharing audio, video and chat.
  - **Important Safety Note:** Some school boards may prohibit the use of Zoom. Should you or the educator/community contact prefer to use a different program or option, please connect with your site coordinator first to discuss how to ensure security/safety of participants equivalent to our suggested Zoom settings.



- ❑ If video showing youth will be recorded, ensure media release forms are sent and collected in advance of the event.
- ❑ Make sure you have a phone number or an alternate method to contact the educator, key contact person or site coordinator quickly if you experience connection issues on the day of the event.
- ❑ Secure a headset and video camera. Test your camera and headset to ensure they are working prior to the live virtual outreach activity.
- ❑ You must have two adults (i.e., site coordinators, volunteers, or educators) participating in the event to ensure no one is left alone with students (see the Interactions with Minors policy). We suggest ensuring one volunteer, who is not also hosting/presenting, moderates attendance and the chat boxes as well as assist with muting/unmuting as needed.
  - Please note that each host should connect via their own device. Ideally, both hosts should connect using a computer as opposed to a mobile device to ensure full functionality.
- ❑ Connect with your co-hosts before the event, if applicable
  - Distribute tasks and go over the workshop together.
  - Test the platform you are using to ensure you are familiar with all settings and how the platform works.
- ❑ Review the activity beforehand to determine if you have all necessary materials on-hand.
- ❑ Make a plan for the activity materials. Planning an event or activity with no or very minimal materials is the most accessible and inclusive option. This is also the easiest for educators to manage. Below are a few scenarios to consider if your activity requires materials:
  - If the educator is providing materials for participants to use, provide a list of required materials, including worksheets, at least one week in advance of the workshop.



- For open-registration events, participants will need to gather materials. Provide a list of materials the youth will need to gather at least one week in advance and ideally at the time of registration. Keep in mind that not everyone will have access to the same materials so try to keep your material list short and limited to common household items; include substitutes in your list as well.
  - If materials are being sent to the group/educator by Let's Talk Science, refer to **Appendix 2** for Guidelines of Distributing Materials Safely.
- ☐ Practice! Interacting virtually can feel unusual if you have not done it before. Set aside some time to get comfortable speaking to someone virtually.

### Extra Tips

- Do not assume that materials will be returned; ONLY distribute materials that you are ok with potentially not being returned.
- Do not loan out national Lending Library kits to youth or educators.
- Get Creative! The tendency may be to lead activities with a hands-on component, but consider what can be done as a minds-on activity only, or without materials.

## Section 3: During the Activity

### Important Safety Notes to ALWAYS Follow

- ☐ Begin every live session with an online safety check.
  - During open-registration events, instruct participants under the age of 13 that they should have the permission of their parent/guardian to participate in the event and/or to share their video (if applicable).
  - Remind students not to share personal information beyond their first name (in Zoom the host can rename a participant to remove last name if needed). This includes their school, address, email address, phone number or other information about themselves or their family.
  - Remind the educator/adult partner/parents/guardians that they must remain in the room with their students/children during the event and that they are expected to manage





the behaviour of the participants (similar to an in-class workshop).

- While you can encourage participants to turn on their cameras, do not force them to do so. There could be many reasons why a participant could choose to keep their camera off (e.g, connectivity issues, privacy concerns, safety considerations, personal comfort etc) so respect this decision.
  - Check in often and encourage participants to show their engagement verbally, by using the chat or by using other features such as the “thumbs up” option available in many online platforms.
- If you record the event to share as a video later:
  - Double check that you have signed and completed media release forms for all participants who will be on video.
  - Ensure all participants (including guest speakers) know in advance that it will be recorded (with a reminder at the start of the session) and ensure individual videos remain off. Wait until after the reminder and after participants have the opportunity to turn off their cameras to start recording.
  - The host should be the only one to record the video and must save to a local computer (e.g., not the Zoom server) to minimize security concerns.
  - Check the video carefully to ensure there was no accidentally disclosed personal information before sharing more broadly.
- If participating in an event managed by another organization (for example, a community group has requested you join their online meeting), ensure the educator of the group is always in attendance.

### Tips for Getting Started

- If you are initiating the session, log on about 10 minutes early to ensure your microphone and camera are working, and that screen sharing is working if you intend to use it. If possible, encourage all presenters or co-hosts to log on 10 minutes early as well.
  - Depending on the meeting format, this also provides a less structured time to greet participants as they arrive;

remember, ensure both you and the co-host and/or educator are also present.

- It can be a bit awkward meeting new people on camera so show excitement to help get the participants engaged from the start.
  - Ask students a few questions at the start to engage them: "Are you excited to do some science today? Is this your first time doing science activities online?"
  - You could also display some relevant pictures or trivia about the topic on screen while people join.

### Tips for Engaging Participants Virtually

- Start by introducing the participants to the platform you are using.
  - Let them know how they can mute and unmute themselves and access the chat/raise hands features (if using). Ask participants to stay on mute when they are not talking. This will cut down on background noise.
  - Explain how they can ask you questions (e.g., "unmute if you have a question", "use the chatbox if you have a question" etc).
  - Refer to the Guide for Zoom Outreach for information about these features.
  - Alternatively, check Zoom's [website](#).
- When asking the students questions, encourage them to either hold up 1, 2 or 3 fingers to indicate their choice of options, do thumbs up/down, or use the chatbox to answer your question.
  - Examples:
    - True or False: "Opaque means light does not pass through. Hold up one finger for true, two fingers for false, or message the number in the chat box. "
    - "How many more minutes do we need? 0, 1, 2, 3 - show me with your fingers or type the number in the chat box!"
  - **Reminder:** Some students will not have a camera so always keep a chat box open and monitored!

### Tips for Leading Interactive Hand-on Activities Virtually

- When going through the material list prior to conducting the activity, list each item and hold up each item to the camera. You can also encourage students to hold up their materials as well.

- ❑ Worksheets/templates can be held up to the camera or screen-shared if you have the document open on your laptop.
  - **Important Safety Note:** Make sure your desktop background is appropriate and all non-essential applications or websites are closed.
- ❑ Some youth may not have all materials ready or available, so provide options while demonstrating the hands-on component.
- ❑ Go step-by-step and pause to show your progress on your camera.
  - You may need to tilt your camera forward to show your desk, if the demonstrations you are doing cannot be held to the camera. Ensure your desk is clean and appropriate, like your background.
  - If participants will be working independently, let them know how long they have or how you will get their attention back when it is time to move to the next step.
- ❑ Be flexible! Some activities may take longer than anticipated, or it may take the participants longer to connect and get settled at the start of a virtual activity. Monitor your time as you go as you may need to skip some activities to stay within time. This can be a good task to assign to your co-host or partner.
  - Remember, check in with the youth often by asking them to hold up their activities, or by using their fingers or the chat box to see how much more time is needed to complete a step to monitor their progress as you go.
- ❑ Count and record the number of live participants to assist with activity logging.
- ❑ Check out **Appendix 3** for some Example Scenarios.

### Tips for Wrapping Up

- ❑ Ask participants what activities or aspects they enjoyed most and why.
- ❑ If time permits, stay online for a few minutes for students to ask you any follow up questions.



- ☐ If you are hosting the event, be sure to end the meeting and log-out of the relevant online platform as another session may be scheduled after yours.
- ☐ Provide some ideas for continuing or extending the learning after the event.

## Section 4: After the Activity

- ☐ Check with your site coordinator to determine who is responsible for logging the live virtual event on the Volunteer Portal.
- ☐ Send any follow-up activity attachments to the educator or your contact.
- ☐ Remember that it will be difficult to have items returned to you. If you are sending materials, be prepared to not have these items returned.

### Logging a Live Virtual Event on the Volunteer Portal

- Select the type of activity that best matches the event you offered.
- Select "Online No School" for the School and "Online no Educator" for the educator, if there is neither associated with the event (e.g., a public event).
- During the event, note how many youth and adult participants you had and include those in the activity log.
- Answer the remaining questions as well as you can for the event you had. Use the "Brief description of the activity/event" to include additional information you would like to record.
- Include "Virtual Event" in the Keywords field.

## Section 5: Accessibility Considerations - Alternative Ways to Engage Youth without Internet

While this guide is designed to assist Let's Talk Science volunteers in delivering hands-on/minds-on activities virtually, we are aware that



some youth, schools and/or communities may have limited access to the Internet as may be unable to engage you with virtually.

For information on options to engage these participants, please contact your site and/or regional coordinator.

Some possible suggestions include:

- Pre-record an activity tutorial. Mail a USB key with the video tutorial along with the materials necessary to complete the activity.
- Please refer to **Appendix 2** for Guidelines of Distributing Materials Safely.
- Please refer to the On-demand Video Creation Guide on recording static content.
- Send instructions or an activity booklet with ideas of minds-on activities to do at home or in the community (e.g., STEM scavenger hunt).



## Appendix 1: Developing a Live Virtual Outreach Activity

Remember to check out the Hands-on Activity Database in the Volunteer Portal for pre-existing activities and check with your site coordinator to see what activity options may already exist.

Ask your site coordinator about the Activity Development workshop for best practices for activity development.

Below are some general tips to remember when developing or adapting an activity for virtual outreach:

- Consider activities to no to minimal material requirements to ensure accessibility and inclusivity.
- If using materials, use common household items; if you are unsure what items participants may have access to, check with the educator or your contact.
- Always provide substitutions.
  - e.g., roll and tape scrap paper into a tube to replace a paper towel roll.
- **Remember:** not everyone has a printer at home so consider electronic file sharing options as well.
- Make sure to have step-by-step instructions so the participants can follow along.
- Make sure your instructions are specific.
  - e.g., instead of saying "cut the straw", say "cut the straw in half so you end up with two equal pieces; you are cutting the straw in half length wise so you should end up with two pieces you could drink through if you tried. But remember, please do not put any materials in your mouth!"
- Include both visual and written instructions to supplement what you are saying.
- Consider what steps might need to be done prior to the workshop such as gathering supplies, pre-cutting items etc.



## Appendix 2: Distributing Materials Safely

In some cases, you or your site coordinator may distribute materials to participants in advance of the outreach workshop or live event. Below are some guidelines to follow when preparing materials to distribute to youth:

- ☐ Review, sign and return the Let's Talk Science Outreach COVID-19 Best Practices and volunteer/coordinator sign-off form before preparing materials for distribution.
- ☐ **Important Safety Note:** ALWAYS follow all relevant national, provincial/territorial and local health and safety guidelines when shopping, shipping or receiving materials.
- ☐ While handling materials, wear a mask and wash your hands before and after. Generally speaking, it is not necessary to wear gloves while handling materials unless required locally or handling materials that require gloves under WHMIS. Ensure that reusable materials are cleaned with soap & water or sanitizer in between uses. This could mean tracking a "last cleaned" date on the kit tote, or, washing before & after each use to make sure nothing is missed.
- ☐ No materials that require special handling, labeling, disposal or MSDS sheets (e.g., WHMIS materials) should be provided to educators or youth, as we cannot ensure safe storage and handling of those materials once outside the control of Let's Talk Science.
- ☐ Always check with the recipient first to make sure they are open to receiving materials (some may not).
- ☐ Determine the primary contact and who will be receiving the activity supplies (e.g., educator, librarian, camp manager, etc/) for distribution.
  - **Important Safety Note:** Let's Talk Science volunteers CANNOT collect or obtain any youth addresses for shipping purposes; materials MUST be distributed by the educator or your community contact.

- ☐ Prepare a few extra packages and make sure all volunteers delivering the activity receive the necessary materials as well.
- ☐ Ship the materials with sufficient time:
  - Plan for the possibility of shipping delays
  - Take into consideration that you must first mail supplies to your primary contact and then they may have to mail to participants
  - Generally speaking, public health guidance no longer advises that materials need to be left to sit before being manipulated by the recipient, however, be aware that your recipient may have more stringent guidelines. Find out if they have any requirement to let materials sit and allow for sufficient time.
- ☐ **Important Safety Note:** If materials are being removed from their original packaging and repackaged for distribution, ensure ALL newly packaged items are clearly labeled.
- ☐ Provide instructions on how to safely discard materials after the workshop, if applicable.
- ☐ Be aware of where your participants are located – e.g., will they be in a classroom? Are the materials being delivered to their homes? Do you need to account for participants receiving materials in one location and bringing the materials with them to another location for the activity?
- ☐ **Important Safety Note:** if you are unsure about what materials are appropriate to distribute to participants, ask your site and/or regional coordinator BEFORE preparing and shipping packages.





## Appendix 3: Example Scenarios

Each time you do an outreach activity (either live or virtual) the experience is different! Below are a few example scenarios to consider when preparing to deliver a live virtual outreach activity but remember, be flexible and have fun!

### Example #1

Every student is tuning into the workshop on their own device, so you will be able individually view every student or monitor individual responses in the chatbox.

#### Extra Tips

- When going through the material list prior to conducting the activity, list each item and hold each item up to the camera.
- Engage youth by asking the following questions:
  - "If you have all the materials for this activity send me a yes in the chat box, give me a thumbs up, or let me know what you're missing!"
  - "If you need a moment to grab an item that you don't have, let me know!"
  - "Have you done the pre-activity prep? (e.g., cutting a template). Give me a yes or no in the chat."
- If certain students indicated they do not have certain materials, keep those students in mind when leading the activity by providing modifications/specific instructions to those students so they can still participate in the activity (this may require you to improvise or think on the spot!).

#### Some improvisation ideas:

- If they are unable to print a worksheet, screen share the document and have them copy it down on a scrap piece of paper. Focus on the concept, the templates are there to assist.
- If possible, send a Google Drive link to a downloadable, VIEW-ONLY copy in the chat so they can download and use on their own device. Remember: not everyone has access to a printer and some may be joining via a tablet or equivalent.
- If students do not have any of the materials for a specific activity, name a few items they could find in their environment

so that they could still understand and learn the scientific concept

- e.g., using a thin piece of firm cardboard to replace a wooden stir stick.

#### Check in with students often by:

- Asking questions to check on progress.
  - Show me a thumbs up or message a yes/no in the chat if you can see what I am doing.
  - Let me know if I am going too slow or too fast!
  - Let me know if you would like me to repeat any of the steps!
- Working with your partner! If volunteer A is running the demo, volunteer B should keep an eye on the chat box and move through the cameras to see how students are following along

#### Example #2

In afterschool programs, program centres or even schools, a projector or single laptop may be set up for the visit. In this scenario, you may not be able to see every student and what they are doing individually.

#### Extra Tips

- When asking students questions:
  - If you can see most participants in the group, you can ask them to answer a question by raising their hands.
  - If it is an explanation-based question, ask the question and ask the educator to pick a participant who has raised their hand to answer (sometimes you cannot see all the students, so you might not want to just pick the students you can see all the time).
  - You can ask the educators to pick a student to share.
- You may need to project your voice more. Check often to ensure that everyone can hear you.
- Ask the educator or your contact to follow along and do a live demonstration of the activity as you demonstrate virtually.

#### Check in with students often by:

- Asking how the activity is going and maintain constant communication with the educator/staff in lead.
- Asking students to indicate their progress

- e.g., "Show me a thumbs up or raise your hand if you are ready to move on".
- If screen sharing the PowerPoint and you are also demoing the experiment, you can let educator know to spotlight (make your picture larger/the focus) the volunteer demoing the experiment if that is easier to visualize.





The volunteer you are working with can let you know if your demo is not visible through the webcam.




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