During these uncertain and challenging times, we are committed more than ever to delivering the life-changing experiences FIRST LEGO League offers to young people.

Everyone at the IET, LEGO Education and FIRST are working hard to anticipate and navigate the uncertainties to ensure we’ll be able to provide every participating team a valuable and enjoyable experience, regardless of learning environments and restrictions this season.

Due to the COVID-19 pandemic, we anticipate that you will encounter unique challenges during the RePLAY and PLAYMAKERS season and we are here to provide support and guidance. This guide provides a series of options to accommodate you in various scenarios this season and allow your team to continue to get the most out of their experience.

This guide is designed to provide suggestions and options, but it is intentionally not prescriptive; considerations for what is best for your local situation should be prioritised. Local health and safety regulations and guidance should precede any of the recommendations in this guide.

We would also like to emphasise that this guide will adapt and change as the global and national situation progresses.

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01.  TEAM CATEGORIES – HOW CAN YOUR TEAM MEET?

If you work in a school, it is likely that you will be working in some sort of year or classroom bubble. If you do not work inside a school, it is possible your team members will be from different households (bubbles).

We’ve put together four categories of how teams can meet and still complete the challenge. The four categories are:

<table>
<thead>
<tr>
<th>One Bubble</th>
<th>Pair of Bubbles</th>
<th>Multi-Bubble</th>
</tr>
</thead>
<tbody>
<tr>
<td>All team members are from within one, singular bubble.</td>
<td>Team members are from across two bubbles, ideally with an even split.</td>
<td>Team members are from across several different bubbles.</td>
</tr>
</tbody>
</table>

**Remote Bubble**

Team members meet remotely [digitally] as they cannot meet in person.

This could apply to any team throughout the season (team members have to isolate, want to hold additional meetings, etc.)

Whilst ensuring you comply to your school or organisation’s Safeguarding guidance, we also recommend considering the points detailed in Appendix 3.

02.  SHARING MATERIALS

**Follow Local Guidance**

Prior to putting a material handling plan in place, it is recommended that you reach out to your school or organisation, as well as local health officials, to determine the guidance for handling shared materials in your area. Whether you are working in class or year group bubbles, your school or organisation will have its own policy and recommendations regarding sharing equipment. In the first instance ensure you are following those guidelines.

**Sanitising LEGO Equipment**

Visit the dedicated LEGO Education webpage for hygiene guidance relating to LEGO and DUPLO elements. This should be used in addition to any guidance you’ve been provided by your local health officials to clean and disinfect your classroom and learning materials: https://education.lego.com/en-gb/support/in-person-steam-resources

**Storing Materials**

Consider creating a plan that follows policies put in place by your local authority, schools or organisation on how to store materials. Examples of potential ways to store them include:

- Recently cleaned materials can be kept in separate boxes with labels that can be changed to indicate the date of cleaning.
- Materials can be separated for use by individual participants and stored in labelled containers, cubbies, or areas.
• Use of equipment can be limited to one group of participants at a time and cleaned and
disinfectected between use.
• Electronic devices can be cleaned prior to sharing with others.

03. SAFEGUARDING

We at the IET are fully committed to promoting the safety and wellbeing of children and vulnerable adults.

As part of any FIRST LEGO League meeting or session, the **team coach is responsible for the safeguarding** of all of their team members and those engaging with FIRST LEGO League. Ensure that your school or organisation’s safeguarding guidelines are followed stringently. This is especially important if engaging with digital tools and remote video meetings.

Please refer to the [IET’s Safeguarding webpage](#) and policies for an overview of best practice.

04. TEAM POSTER – RESEARCH & PRESENTATION

The Team Poster can be easily adapted to suit any of the four team categories.

• Refer to Pages 22 & 23 of the Engineering Notebook for full details of what to include on your team poster.
• Refer to the sessions 10 & 11 within the Team Meeting Guide (Page 18) for details of leading the team through the team poster.
• The related appendices for the team poster can apply to all four team categories.
• Follow the Group Session Layout [Team Meeting Guide - Page 6] for your two bubbles (e.g. Group 1 [May’s Group] work as a bubble, Group 2 [Marco’s Group] work as another).
• If team members have to share equipment (e.g. devices, materials for creating props or posters, etc.), consider the **Sharing Materials** section within this guide.
• Depending on your school/organisation **Sharing Materials** and **Safeguarding** guidelines, when groups are required to work as a team you could:
  o Physically share whilst distancing
  o Schedule and hold video call meetings
  o Record group updates (to show to the other group)
  o Utilise digital sharing tools

**Team Poster Related Appendices**

• [Appendix 1: Digital Tools](#)
• [Appendix 2: Accessing Experts Remotely](#)
• [Top Tips for your Team Poster](#)

05. BUILDING THE EXPLORE MODELS

• If working through the session plans within the Team Meeting Guide (Pages 10-17), the building of the Explore Models is incorporated into Sessions 2-9.
• Build instructions are found in the Explore resources on the [Team Resources webpage](#).
• Agree at the start of the season how you will ensure every team member has a chance to build whilst maintaining appropriate distancing and sharing of materials.
The below points are relevant for the building tasks throughout the programme and your final team model.

- If possible, provide each team member with a device with the relevant build instructions
- Depending on your school/organisation [Sharing Materials](#) guidelines
  - Can the children build as instructed, ensuring they wash their hands pre- and post-session?
  - If you have them and think it will be easier, use multiple Explore sets within one team to complete the building tasks.
  - Can you divide the pieces equally, so each child has an opportunity to build? Depending on how many children are on the team, each child may be able to have their own bag of LEGO.
  - Each child can have their own baseplate to build on.
- If there are not enough bags for a team member to build during a session, set them a task relating to the project. Ensure they have a chance to build next time.
- Depending on your school/organisation [Sharing Materials](#) and [Safeguarding](#) guidelines, when groups are required to feedback at the end of each lesson you could:
  - Physically share whilst distancing
  - Schedule and hold video call meetings
  - Record group updates (to show to the other group)
- Utilise digital sharing tools

06. **WEDO - PROGRAMMING**

With some creative adaptation, it is possible to have all team members contribute towards the programming of the WeDo.

- If possible, provide each team member with a device with the relevant [programming software](#) installed.
- If you have them, use multiple WeDos and devices within one team to complete the programming sessions.
- Points to consider, depending on your school/organisation [Sharing Materials](#) guidelines, are:
  - Can team members share a device, ensuring they wash their hands pre- and post-session?
  - Can the team screen share across devices or show the programming on a large screen?
  - Can one person in both May’s group and Marco’s group be the designated builder and programmer for each group?
  - Can one team member be the designated builder and programmer, whilst the rest of the team offer suggestions on how to improve/adapt the build or code?
- Depending on your school/organisation [Sharing Materials](#) and [Safeguarding](#) guidelines, when groups are required to show their programming you could:
  - Physically share whilst distancing
  - Schedule and hold video call meetings
  - Record group updates (to show to other group)
  - Utilise digital sharing tools

**WeDo Programming Related Resources**

- [Appendix 1: Digital Tools](#)
- [Appendix 2: Accessing Experts Remotely](#)
- [Additional Resources section](#)
- [Raising Robots Website](#)
07. CORE VALUES

Throughout the season, however your team is working, they need to ensure they keep Core Values at the forefront of their minds. More than ever during these unusual times, the Core Values are crucial to the success of the team and in enabling them to have positive experiences throughout FIRST LEGO League Challenge.

The team members and coach may wish to consider the following:

- Have team members discover new ‘norms’ for working remotely.
- Keep the whole team involved by ensuring everyone has a role that is valuable to the overall team success.
- Effective communication is key!
- Use Appendix 1: Digital Tools for ideas of how to record and enhance Core Values in your team.
- Team members can record examples of Core Values on Page 6 of the Engineering Notebook (or in the Interactive Engineering Notebook PDF mentioned in the Additional Resources section).
- This season, the whole team needs to remember that everybody’s situation may be different and can change very quickly. Encourage everyone to be patient, understanding and to support each other throughout all the ups and downs that may occur.

08. ADDITIONAL RESOURCES

The IET, LEGO Education and FIRST will continue to produce and enhance resources throughout the season to support coaches and team members. Resources that currently exist that may be of interested are:

- **Interactive Engineering Notebook PDF** – This is an adapted version of the Engineering Notebook that enables team members to work independently with a digital guide. In the PDF they can write notes, upload pictures/drawing and tick stages that have been completed.
- **PLAYMAKERS Session Videos** – An introduction to delivering the sessions detailed within the Team Meeting Guide, along with 10 session specific videos providing guidance, top tips and visual aids.
- **How to prepare for your Festival Video** – An overview on how to get ready for your regional, remote or in-school festival. Whichever you’re attending – you’ll need to prepare, and we’ll tell you all you need to know!

See Appendix 1: Digital Tools for ideas on how to import these documents into platforms for remote team meetings or a remote classroom environment.

09. COMMUNITY ENGAGEMENT

The LEGO Education Community is a passionate group of educators from around the world who believe that play and exploration build successful life-long learners. The community mission is to support and learn from one another, to find inspiration and to connect with peers.

The community enables the exchange of resources but also offers a range of discussion boards, including a competitions specific board.

[Click here](#) to find out more and to join the LEGO Education Community.
10. **FESTIVALS**

As you are aware, the national situation is constantly changing, and regarding events, we will be following government guidance closely. We are currently planning and preparing for both remote and physical events, and depending on the guidance at the beginning of 2021, we will take the decisions on which way to proceed in order to keep all participants, organisers, and volunteers safe.

However, in terms of your preparation, please follow the Team Meeting Guide, and prepare as you would for a physical event. If the events are remote, they will be delivered through the official Remote Event Hub, and the expectation on you as a team will be the same. There will still be a 10-minute reviewing session, so make sure you’re prepared!

We will release more information regarding remote events as and when we have it, and all teams will be updated promptly. If you have any question regarding events, please email FLLExplore@theiet.org.

11. **APPENDICIES**

**APPENDIX 1: Digital Tools**

One of the challenges with remote collaboration is the inspiration that happens by working together and making improvements in real time. Being remote sometimes makes this difficult when programming or editing documents.

If you can, choose a Video Conferencing service and apps (e.g. Microsoft Teams, Google Hangout, Zoom, Skype) to host your meetings. Please remember to review your school or organisation’s Safeguarding guidance when deciding on a conferencing tool, and ensure the necessary protocols are followed for everyone’s safety.

- Limit meetings to invited team members and specific invited guests only.
- Practice using the tool with the team, so all are comfortable with the platform and its features.

Other useful digital tools for sharing include:

- **Remote Collaboration** – [Google Classroom](https://classroom.google.com), [Microsoft Teams](https://teams.microsoft.com), [Zoom](https://zoom.us), [Discord](https://discord.com)
- **Digital Presentations** - [Prezi](https://prezi.com), [Google Slides](https://slides.google.com)
- **Social Learning** – [Flipgrid](https://flipgrid.com)
- **Collaborative Brainstorming** - [Google Drawings](https://drawings.google.com), [Teams Whiteboard](https://whiteboard.microsoft.com), [Google Jamboard](https://jamboard.google.com), [Padlet](https://padlet.com)
- **Surveys or Interactive Stories** - [Google Forms](https://forms.google.com), [Microsoft Forms](https://forms.office.com), [Survey Monkey](https:// surveymonkey.com)
- **Project Management or Organisation** – [Trello](https://trello.com), [Freedcamp](https://freedcamp.com), [Click Up](https://clickup.com)
- **Bring the FUN!** - [Meme Generators](https://meme.com) or [Kahoot](https://kahoot.com)

**APPENDIX 2: Accessing Experts Remotely**

Theme experts can be found and engaged through social media channels or virtual visits. Coaches should plan to take the lead on these platforms but can facilitate questions and conversations between their team members and adult experts.

Don’t overlook the experts from your own school/organisation or the friends and family of team members. A PE teacher or personal trainer, representatives from a local sports team, or the designer
of a local playground may all be interested and willing to talk to your team via webinar or virtual meeting.

Always consider your school or organisation’s Safeguarding guidance and ensure that an adult coach is present during any meetings.

Points to remember are:

- Allowing plenty of time to source, contact and remotely meet with potential experts.
- When will you set up the meeting that is convenient for the coach, team members and expert?
- What platform will you use to host the meeting? Does it work for your expert?
- Agree the length and structure of the meeting beforehand (can team members ask questions, can the team deliver their presentation, can they get a virtual tour, etc.)

APPENDIX 3: Remote Bubbles – Things to consider

Things to consider when organising team meetings remotely:

1. **Understand what technology team members have access to**
   - Do they have internet/a computer/smart phone/zoom or Microsoft teams or other communication platforms?
   - Do they have the bandwidth and internet access stability?
   - Are they able to download LEGO Education software or apps on to their device?

2. **How much access does the child have?**
   - Are they sharing their computer or mobile phone with other members of the household?
   - Does the computer or phone have a camera?
   - How well does the internet work?
   - Are there limits on the amount of data for their phone or internet?
   - What permissions/limits does the team member have to use the home technology i.e. computer, smart phone, internet?
   - There are websites created by educational entities for interactive learning that can assist the team with their teamwork. Would the family allow their child to use this type of platform?

3. **What resources are available at home for the team member to use?**
   - Paper/pens/pencils/ items that can used to make things (cardboard, and cardboard tubes, blank paper, scissors, glue, LEGO elements, storage container for work completed during the meeting, a space

4. **Would the parents like to participate/support the team and if so, how much and what might they like to do?**
   - What kind of communication/platform would be helpful to the family and how often?
   - How/when should parents communicate with you?

5. **Discuss days and times for team meetings to determine if there are family needs that impact participation?**