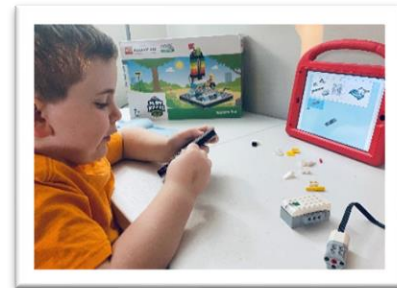# FIRST LEGO LEAGUE

EXPLORE

GUIDE FOR DISTANCE EDUCATION

FIRST

LEGO education

Overview

Due to the COVID-19 pandemic, we know that teachers will encounter unique challenges during the *FIRST®* LEGO® League Explore PLAYMAKERS℠ season. This guide provides specific guidance to help you implement *FIRST* LEGO League Explore with your students remotely.

Using the remote learning platform Seesaw, we have redesigned the *FIRST* LEGO League Explore experience using the existing program content. This option can be used by teachers, coaches, and parents to allow students to have a full and exciting STEM experience.

This option has both synchronous (live remote meeting using platforms like Zoom) and asynchronous (independent activities children do using Seesaw and hands-on materials) elements so that you can hold team meetings or have in-classroom lessons for short periods of time and then participants can work individually at times. All the activities can be completed without the LEGO® WeDo 2.0 set, but you will need an Explore set per child or pair of children. You can purchase additional Explore sets in the *FIRST®* Dashboard.

This guide provides tips and information on the activities and how you can use them for the different implementation models you may be experiencing.

Use this checklist to help you get started and guide you toward success.

❑ Determine how many students will participate in the program at a time – Small groups? Whole class? All classes in your grade?

❑ Review the material management section to determine what materials you need for *FIRST* LEGO League Explore at Home. (Page 5)

❑ Register a *FIRST* LEGO League Explore Team or Class Pack. (All other countries)

❑ Ensure you have received all the materials needed to run the program. (Page 5)

❑ Review using Seesaw and Remote Video Tools. (Page 4)

❑ Determine how you will distribute materials to remote students. (Page 5)

❑ Decide your schedule. Will you lead the sessions through live instruction, recorded videos or written tasks? (Page 6)

❑ Consider using *FIRST* LEGO League Explore as a tool for teaching STEM concepts and for active, hands-on brain breaks.

❑ Plan a remote celebration event. (Page 7)

❑ Communicate with families and engage them in *FIRST* LEGO League Explore. (Page 8)
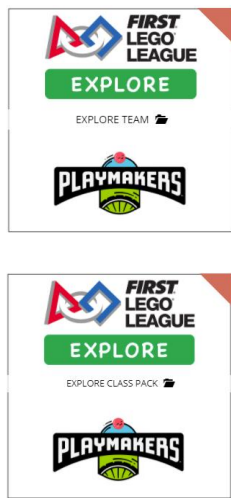
How to Get Started

Once you have registered your team or Class Pack, you will be able to navigate to the Thinkscape course, using the button on your *FIRST* dashboard.
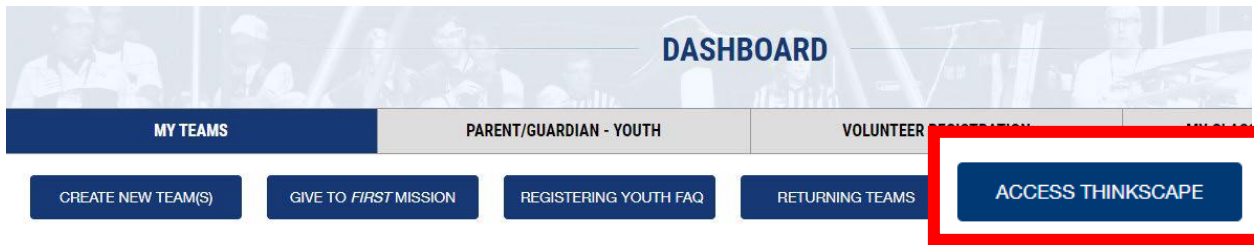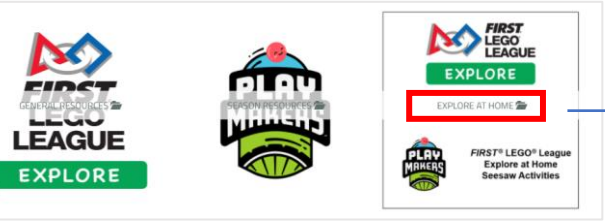

Inside Thinkscape, you will find the course below that will have all the links to the Seesaw activities.
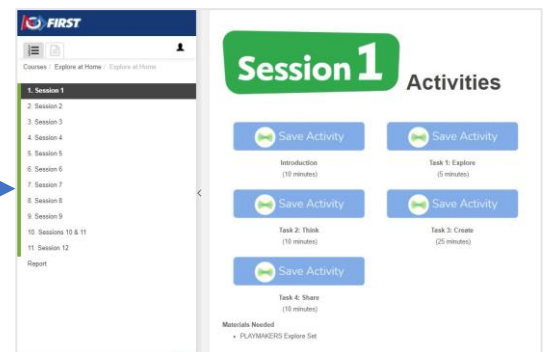
Screen 1- Course Icon   **Screen 2- Module Listing**   **Screen 3- Session Activities**


Best Practices for Remote Explore Meetings

If you are considering leading Explore remotely, we suggest the following best practices for meeting and online safety:
- Schools: check the remote video tools and requirements approved by your school or district.
- Choose the remote video tool that works best for you.
- Communicate with the parent and guardian of your team members about the remote tools you will use.
- Plan with another adult (co-coach, co-teacher, parent, or volunteer) to attend all remote video meetings with you.

Like during other remote instruction, you will want to set meeting norms for your students on how to use digital tools and interact with each other. You may wish to introduce the *FIRST*® Core Values to your students and reference them or build the *FIRST* Core Values ideas into the behavioral expectations for your team or class.
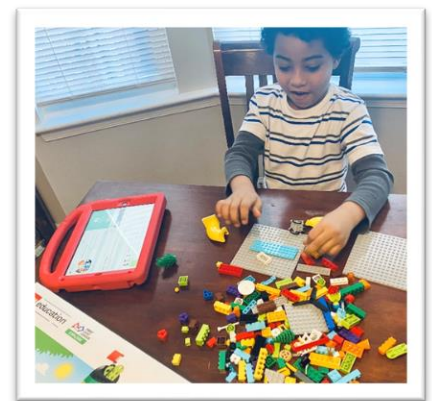
For more ideas and practices read the *FIRST* LEGO League COVID Guidance.

Using Seesaw

Using Seesaw for Explore at Home Video Tutorial
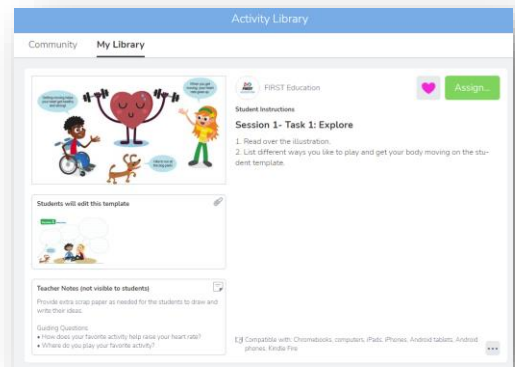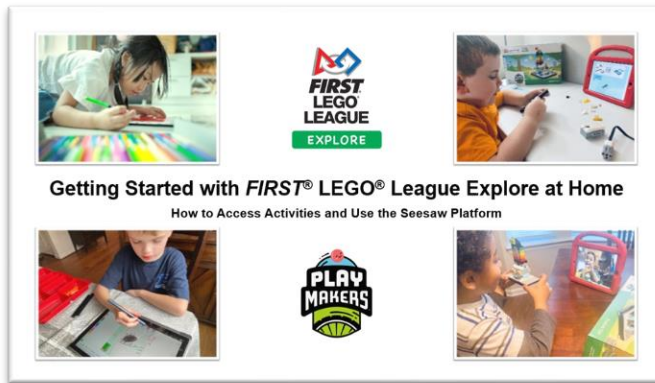
Setting up and Using Your Seesaw Account

Seesaw has created step-by-step help to setting up your account and remote access for students that can be found here.

You can also watch this step-by-step tutorial video that will walk you through setting up your class and your students. For this we recommend you have:

- A device to watch the video and a second device or screen to set up your class while watching.
- The list of students on your team or in your class.
- Prepared parents ahead of time for how students will access the class content.

Once your account is set up you will be ready to add in the lessons from Thinkscape with a single click on the activity links. Your class library will then look like the class below. Then, you are ready for your Explore at Home journey!

Tip

You do not need to add all activities for your sessions during set up. We recommend adding each sessions activity just before the start of the sessions.
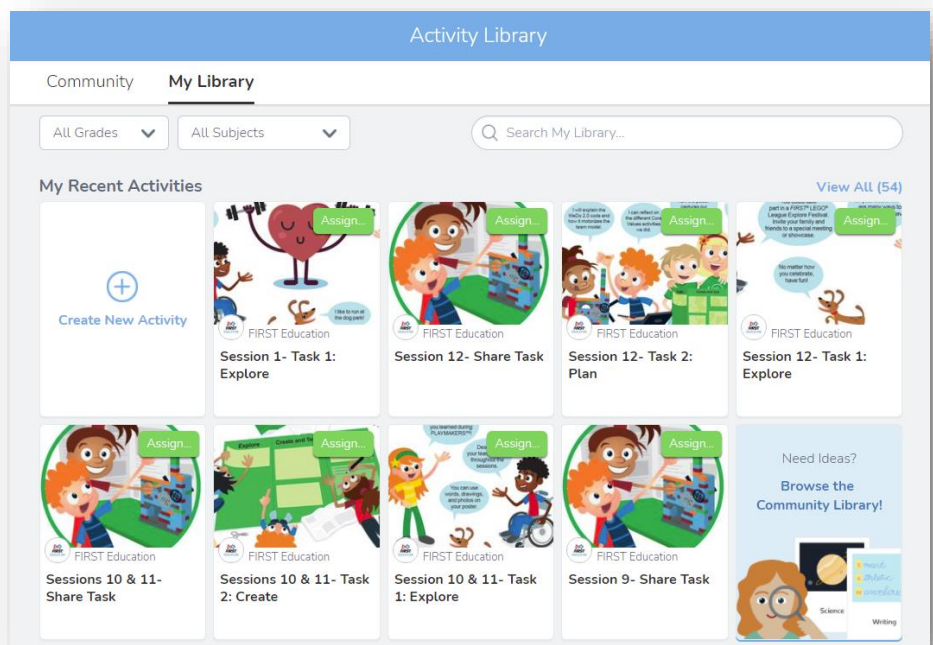
Material Management

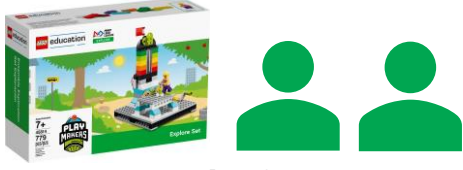The *FIRST* LEGO League Explore at Home remote experience works for both teams and Class Packs. To use the Explore at Home experience, you need to have **ONE** of these material scenarios:

Scenario 1	Scenario 2	Scenario 3
Per Child: -1 PLAYMAKERS Explore Set	**Per Child:** -1 PLAYMAKERS Explore Set -1 LEGO Education WeDo 2.0 Set	**Per 2 Children:** -1 PLAYMAKERS Explore Set See implementation below*
1 : 1	**1 : 1**	**1 : 2**

- Give Child 1 the Heart Game parts (Bag 1, Book 1) and 3 baseplates and half of prototyping pieces (multiple bags with 4 on it).
- Give Child 2 the Treadmill parts (Bag 2, Book 2) and 3 baseplates and half of prototyping pieces (multiple bags with 4 on it).
- Child 1 will complete the sessions that use the Heart Game and Child 2 will complete the sessions that use the Treadmill. Each child will build their team model with their part of the Explore model.

Additional Materials

Once you are a registered Explore team or Class Pack, you can purchase additional PLAYMAKERS Explore Sets in the *FIRST* Dashboard for each child for $35 each plus shipping and handling (available for North America customers). You can also purchase additional LEGO Education WeDo 2.0 sets.

Teachers in the United States can create a project on Donors Choose for additional *FIRST* LEGO League materials.

Each child will need a large poster board and various art supplies and materials to create a poster in Sessions 10-11. As an alternative, you could have the children create a digital version of their poster.

Material Management Tips

- If you plan to share materials between cohorts of children, allow time and budget for cleaning in between groups of students, inventorying sets, and replacing missing parts. Review LEGO Education's Managing Today's Classroom page for additional resources.
- Provide pictures or the PLAYMAKERS Explore set element survey page and LEGO Education WeDo 2.0 element survey page to help you and the children manage the materials and know what is missing. You may wish to have your students' parents/guardians sign an agreement about returning materials, including a statement of what happens if any materials are missing.
- If you are dividing materials from the Explore for two children to use, you could use plastic storage tubs or resealable bags for affordable and durable packaging.
- Replacement LEGO elements can be purchased from LEGO Bricks & Pieces. Enter set number 45300 to find LEGO® Education WeDo 2.0 pieces.

Scheduling

FIRST LEGO League Explore is designed to have 12 sessions that each last about one hour. Each session is broken into tasks, including an introduction, building, exploring, creating, and sharing, depending on the session. In remote instruction, you will likely need to modify the standard schedule to match your structure.

Scheduling Factors to Consider

- How many children will participate in Explore at one time?
    - Will every child on the team complete the Seesaw activities at the same time?
    - Will some materials be shared across the team at different times?
    - Will the children complete the coding activities that require the LEGO Education WeDo 2.0 set?
- How will you be leading the children through the remote session tasks?
    - Will you deliver any session tasks through live virtual instruction?
    - Will you record any videos to give additional instructions?
    - How will children complete the Sharing task at the end of each session?
- Will you assign individual session tasks to be completed in one session or spread out the tasks within one session over multiple days?
- What help and guidance will the children have available at home to complete the session tasks independently in an asynchronous setting?

Sample Weekly Schedules

One session per week

Day	Session Activity	Time	Format
Monday	Introduction	10 minutes	Synchronous (*recommended*) or Asynchronous
Tuesday	Task 1: Build	10 minutes	Asynchronous
Wednesday	Task 2: Explore	10 minutes	Asynchronous
Thursday	Task 3: Create	20 minutes	Asynchronous
Friday	Task 4: Share	10 minutes	Synchronous (*recommended*) or Asynchronous

Twelve weeks total

Week	Session	Week	Session
1	1	**6**	6
2	2	**7**	7
3	3	**8-9**	8-9
4	4	**10-11**	10-11
5	5	**12**	12

Two sessions per week

Day	Session Activity	Time	Format
Monday	Introduction Task 1: Build Task 2: Explore	30 minutes	Synchronous and Asynchronous
Tuesday	Task 3: Create Task 4: Share	30 minutes	Synchronous and Asynchronous
Thursday	Introduction Task 1: Build Task 2: Explore	30 minutes	Synchronous and Asynchronous
Friday	Task 3: Create Task 4: Share	30 minutes	Synchronous and Asynchronous

Six weeks total

Week	Session	Week	Session
1	1-2	**4**	7-8
2	3-4	**5**	9-10
3	5-6	**6**	11-12

Suggested Sequences for Various Implementations

Click on this **link** for a more detailed breakdown of how to complete all the Session tasks and the length of time for each session based on your implementation. Activity sequences are provided for different implementation scenarios: 1:1 Explore Set and WeDo 2.0 set, 1:1 Explore Set with no WeDo 2.0 set and 1 Explore Set shared between two children.
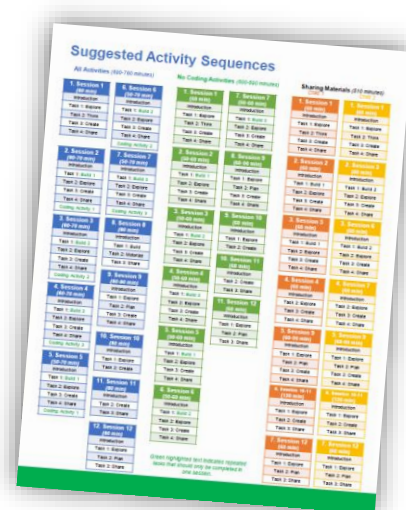
Holding a Remote Celebration Event

The Celebration Event described in session 12 of the Team Meeting Guide may look different for remote students than it would in person. The goal of the event is to have students share their work and feel recognized for what they accomplished during the Explore sessions.

Here are few ideas to help you plan your remote celebration:
- If you have a registered team, contact your local partner to find out the format for your festival.
- If you are a Class Pack customer, check out the Class Pack Festival Guide for guidance on running your own event.
- No matter the format of the final event, it's important for the team to have FUN and to feel that their work is valued and celebrated.

If you are not attending an official festival or planning your own festival, you can still run your own celebration or have an informal sharing event.

Plan how this will take place ahead of time. In session 12 the outcomes are:
- The team will be able to reflect on their PLAYMAKERS experience.
- The team will be able to create a plan for what to share at their final event.

It is important you give them the details during or before this session so they can prepare.

Ideas for preparing for your remote celebration:
- Have each student build part of their team's model, then take a picture. Use a picture merging app or tool to remotely combine each child's contribution into a single team model.
- Use the remote meeting tools that your students are familiar with for your celebration event. For example, if your class uses Zoom, it will be easiest for your students and families if they also join your celebration event through Zoom.
- Have students explain what they learned during the sessions, talk about their favorite part of *FIRST* LEGO League Explore or describe their team's model. Parents can share what their students learned or how they grew during *FIRST* LEGO League Explore. Consider asking for parent volunteers to be interviewed in advance to keep the celebration running smoothly.
- Collect student pictures through the sessions, including during class meetings, builds, and Engineering Notebook pages. Share the pictures in a slideshow during the celebration, accompanied by music or explanations.
- Remember to include opportunities for the students to move during your remote celebration event. Many *FIRST* LEGO League events include a dance party!
- Be sure to recognize the students by awarding them recognition certificates. You can send the certificates digitally, mail printed certificates, or include printed certificates with other materials sent home to students. You may wish to give out the certificates at the same time the materials are returned.

Support for Parents and Caregivers

Parents take on an even more critical role in students' lives during remote instruction. While many parents monitor their children's play and schoolwork, they may not realize the learning and developing that happens through play and they may not be used to playing together. As educators, you can guide your students' families to approach the Explore sessions with a playful mindset. When Explore is done remotely, it can provide additional opportunities for parents to play with children and provide the children more chances to play. The activities can give parents chances to model the Habits of Learning, including creativity, persistence, empathy, and problem solving. Playing also increases happiness and reduces stress for adults!