

**FIRST  
LEGO  
LEAGUE**

EXPLORE

# TEAM MEETING GUIDE

「MASTER  
PIECE」



# Introduction

## Welcome to **FIRST® LEGO® League Explore!**

In **FIRST® LEGO® League Explore**, teams focus on the fundamentals of engineering as they explore real-world problems, learn to design and code, and create unique solutions made with LEGO® bricks and powered by LEGO® Education SPIKE™ Essential.

**FIRST LEGO League Explore** is one of three divisions by age group of the **FIRST LEGO League** program. This program inspires young people to experiment and grow their confidence, critical thinking, and design skills through hands-on learning. **FIRST LEGO League** was created through an alliance between **FIRST®** and **LEGO® Education**.



## **FIRST® IN SHOW™** presented by Qualcomm and **MASTERPIECE™**

Welcome to the **FIRST® IN SHOW™** season presented by Qualcomm. This year's **FIRST LEGO League** challenge is called **MASTERPIECE™**. Children will learn about how people's passion for the arts are shared through STEM (Science, Technology, Engineering, and Math).

During each session, they will experience the engineering design process. There is no set order for this process, and they may go

through each part several times in a single session. This means that during a session, children will be exploring the theme and ideas,

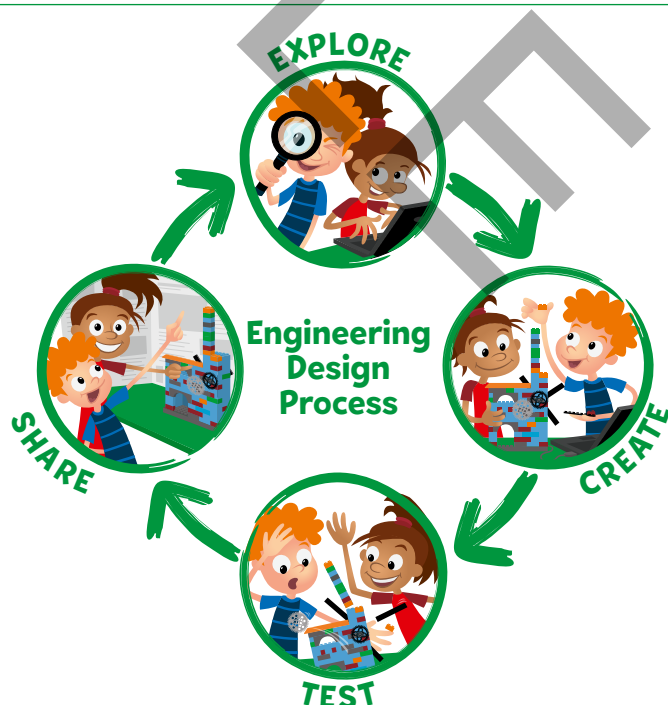
creating solutions, testing them, iterating and changing them, and then sharing what they've learned with others.



## Working in Teams

Children work together in teams of up to six members using pieces from the LEGO Education SPIKE™ Essential set, and an Explore set. They will collaborate and communicate to build, learn, and play together.

Children should be encouraged in every session to work with their teammates, listen to each other, take turns, and share ideas and pieces.



# What Does the Team Need?

## LEGO® Education Set

### LEGO® Education SPIKE™ Essential Set

**Note:** Other LEGO Education sets such as WeDo 2.0 are also allowed.



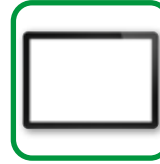
### MASTERPIECE™ Explore Set

Each team will get one MASTERPIECE™ Explore set. Leave the LEGO® pieces in their plastic bags until the sessions in which they are needed.

Two printed books contain the building instructions for the Explore model. Bags marked 4 include enough pieces to build two additional basic stage models.



## Electronic Device



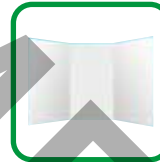
Your team will need a compatible Bluetooth-enabled device like a laptop, tablet, or computer. Scan the QR code to view system requirements and download software.

Scan me for system requirements and software download



## Team Poster Supplies

Each team will need a large poster board and various art supplies and materials in Sessions [10-11](#).



	Basic Stage	Minifigures	Music Concert Pieces	Motor and Hub Pieces	Prototyping Pieces
Bag	1	1	2	3	4
Book	1	1	2	2	-



### Tips

- The prototyping pieces and baseplates are used throughout the sessions to build solutions to the design challenges.

# Sessions At-A-Glance

Every session starts with an introduction and ends with a share activity. Details for these activities are given in the session pages that follow, along with notes and tips to help you run the session.

	✓ Introduction (5-10 minutes)	✓ Task 1 (15-20 minutes)	✓ Task 2 (15-20 minutes)	✓ Wrap Up (10-15 minutes)
<b>Session 1</b> Hobbies and Interests	Let's Discover	Explore Season Theme	Build What You Love	Share and Clean-Up
<b>Session 2</b> Behind the Scenes	Go Team	Build Minifigure Experts	Build a Basic Stage	Share and Clean-Up
<b>Session 3</b> Sound All Around	Let's Have Fun	Build Music Concert	Build Sound Effects	Share and Clean-Up
<b>Session 4</b> Theater Technology	Let's Innovate	Do Coding Lesson 1	Build a Theater Stage	Share and Clean-Up
<b>Session 5</b> Museum Exhibit	Be Inclusive	Do Coding Lesson 2	Build a Museum Exhibit	Share and Clean-Up
<b>Session 6</b> Visual Effects	Have An Impact	Do Coding Lesson 3	Build a Moving Camera	Share and Clean-Up
<b>Session 7</b> Setting the Stage	Discovery Build	Design Your Show	Build Your Show	Share and Clean-Up
<b>Sessions 8-9</b> Team Model	Teamwork and Fun Builds	Design Team Model	Create and Code Team Model	Share and Clean-Up
<b>Sessions 10-11</b> Team Poster	Innovation and Inclusion Builds	Design Team Poster	Create Team Poster	Share and Clean-Up
<b>Session 12</b> Prepare for Event	Impact Build	Prepare for Event	Determine What to Share	Share and Clean-Up

**Celebrate at a Festival!**

# Session 1

## Outcomes

- The team will use discovery to explore the MASTERPIECE<sup>SM</sup> theme and explain how people share what they love to do.
- The team will build a place to share a hobby or interest.

## Introduction (10 minutes)

### Let's Discover

- Read the definition for **discovery** to the team. (see [page 5](#))
- Talk about what **discovery** is. Have the team provide examples of this Core Value.
- Extension: Draw yourself using **discovery** on the Core Values page in the *Engineering Notebook*.

## Guiding Questions

- What did you learn from the Explore story?
- How do you teach people about your interests?
- How do you use creativity in your hobbies?

## Session Tips



- 1 Check out the Multimedia Resources for more resources you can use with your team.
- 2 You will find various sessions reference different art-related jobs. These jobs are listed on the Career Connections pages in the *Engineering Notebook*.
- 3 Writing and drawing space is provided throughout the notebook for each child to capture their thoughts and ideas.

## Extension

- Research new innovations and emerging technologies in the art and entertainment fields.
- Do a show and tell activity with the team.

### Activity 1 Tasks (15-20 minutes)

- 1 ☐ Read the Explore story and explore the MASTERPIECE<sup>SM</sup> theme.  
☐ Talk about your own hobbies or interests.  
☐ Think about how you use art or creativity in your hobbies or interests.  
☐ Draw a picture of what you love to do.

Your team needs:



## Session 1

Where did you learn about your hobby or interest?

What **tools** or **objects** do you need for your hobby?

What I love to do:



# Hobbies and Interests



## Share (10 minutes)

Have the team:

- Share what they did in the session.
- Explain their hobbies and interests.
- Share how they use art or creativity in their interests.

## Hobbies and Interests

Your team needs:



5

I love skateboarding! Help me show my friends how fun it is!

Izzy



### Activity 2 Tasks (15-20 minutes)

- 4
- ☐ Explore how people share what they love to do.
  - ☐ Talk about places in your community where people share what they love to do.

### Challenge

- ☐ Discuss the creative ways Izzy could get her friends interested in skateboarding.
  - ☐ Use the prototyping pieces to build a place where Izzy could share her love of skateboarding.
- 6
- ☐ Share your ideas.

My ideas:

## Guiding Questions

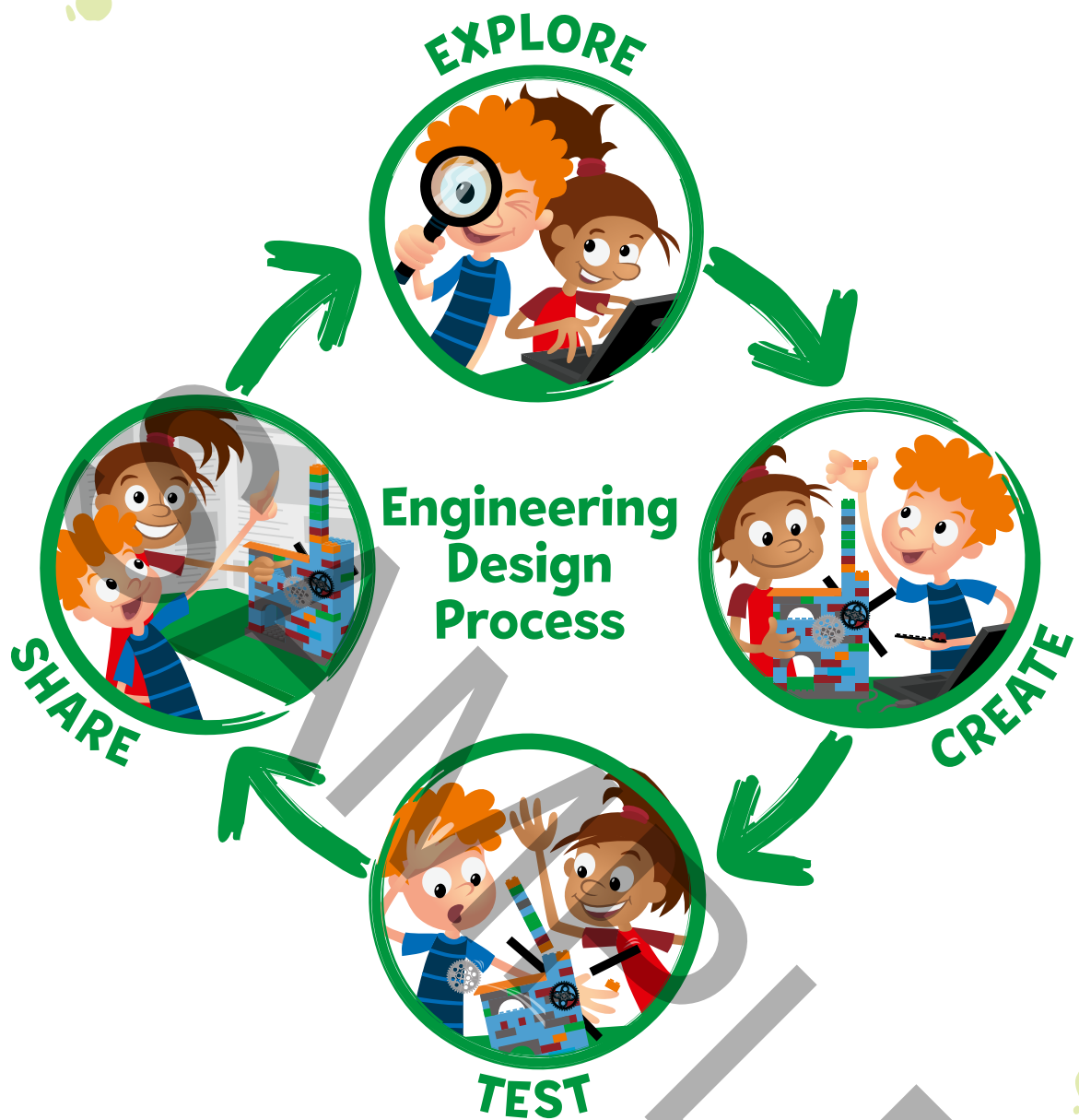
- How do you share what you love to do?
- Where do you go when you want to learn about something new?
- Does the Explore story give you any ideas for Izzy?

## Session Tips

- 4
- Children can set goals and share their progress in their *Engineering Notebook*. Pages 6-7 can be used throughout the season.
- 5
- Give the team the LEGO® prototyping pieces (bags labeled 4) to create their designs. Do NOT open any other bags.
- 6
- At the end of each session, children should share what they have accomplished.

## Cleanup

- Anything built with the prototyping pieces should be taken apart.
- Place the prototyping pieces back in the Explore box or in a container labeled "Prototyping Pieces."



**FIRST<sup>®</sup> IN SHOW<sup>SM</sup>**

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