

**FIRST  
LEGO  
LEAGUE**

DISCOVER

# TEAM MEETING GUIDE



## FIRST® LEGO® League Global Sponsors

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The LEGO Foundation



# Welcome

In *FIRST*® LEGO® League Discover, children are introduced to the fundamentals of STEM while working together to solve fun challenges and build models using LEGO® DUPLO® bricks. Students develop their habits of learning, confidence, and teamwork skills along the way.

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



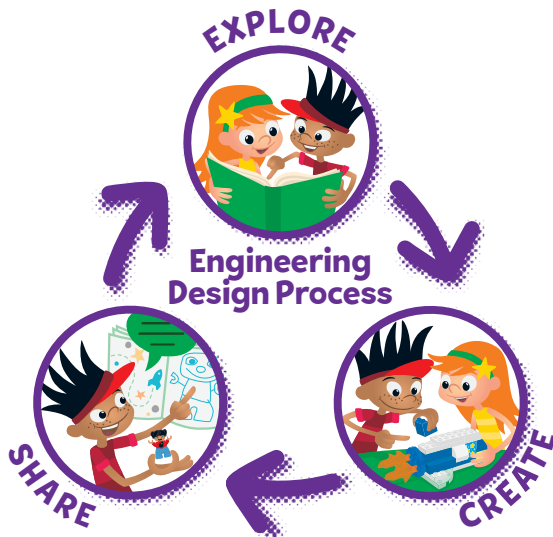
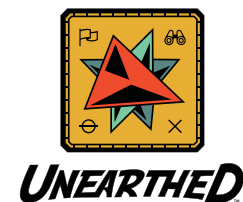
## *FIRST*® AGE™ and UNEARTHED™

Welcome to the *FIRST*® AGE™ season presented by Qualcomm. This year, *FIRST* LEGO League teams will learn about what people of the past have left behind and what we can learn as those items are UNEARTHED™.

Get ready for an archaeological adventure! This season, the team will become junior archaeologists. As a group, you will explore

excavation sites, build and study cool artifacts, and solve mysteries about the past.

Children will work together in teams using LEGO DUPLO pieces from the STEAM Park Set and the Discover Set. Children should be encouraged to work with their teammates, listen to each other, take turns, and share ideas and pieces.



## Program Outcomes

The children will:

- Use and apply the *FIRST* Core Values, habits of learning, and the engineering design process to create solutions.
- **Explore** the season theme and their ideas through collaboration, building, and playful learning.
- **Create** and test their ideas and solutions.
- **Share** and communicate what they have learned with each other and others.

# Playful Learning in Action

Research shows that when young children are engaged in playful STEM experiences, they ignite their natural curiosity, grow their knowledge, and develop habits of learning. When educators nurture these natural-born scientists, children build a bridge between the real world, STEM skills, and literacy.

In *FIRST*® LEGO® League Discover, children are given meaningful problems to solve. They work together to wonder and question, build and tinker, listen and share. By the end of their experience, children emerge more confident and better equipped to face future challenges.

## The Coach's Role

As a coach, your goal is to foster a fun and supportive environment where young children can explore, build, and create together. You don't need to be an

engineering expert or a seasoned educator – your role is to guide and encourage, helping children to unlock their natural curiosity and teamwork skills.

Coaches in *FIRST* LEGO League Discover are responsible for:

- **Facilitating Learning and Play:** Encourage exploration, creativity, and problem-solving as you guide the children through each session.
- **Encouraging Teamwork:** Working together is just as important as what teams build. Ensure that children share, take turns, and communicate effectively.
- **Championing Core Values:** Model the *FIRST* Core Values and recognize the children's teamwork, perseverance, and kindness in every session.
- **Connecting Families:** Regularly share what the children are learning and encourage families to continue exploring and playing together at home.
- **Being a Role Model:** Celebrate every small success and encourage children to try new things. Your positivity and enthusiasm will inspire confidence and excitement.



# FIRST® Core Values

The *FIRST*® Core Values are fundamental to the program, and they support many of the social and emotional lessons you are already working on to instill in your students.

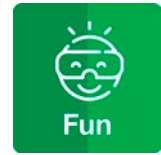
Session content will help students recognize the applications of inclusion and teamwork and see the way their decisions have an impact on their peers.



We are stronger when we work together.



We apply what we learn to improve our world.



We enjoy and celebrate what we do!



We explore new skills and ideas.



We respect each other and embrace our differences.



We use creativity and persistence to solve problems.

## Family Engagement

Families who participate together in *FIRST*® LEGO® League discover the power of curiosity, creativity, and problem-solving, building the foundation for lifelong confidence in STEM learning.

Sharing the Family Engagement Activities is a great way to continue the learning at home between sessions.



Scan for Family Engagement Activities

# Before You Begin

Below are some helpful steps for getting started with teaching *FIRST*® LEGO® League Discover.



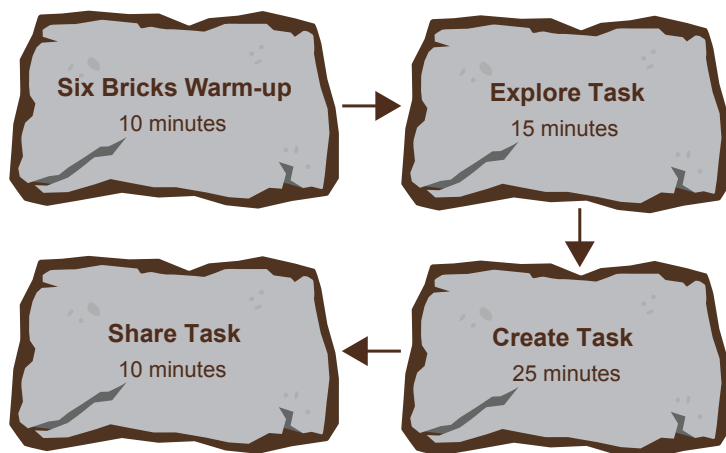
## Before your first session:

- ☐ Read the full *Team Meeting Guide* before starting the experience to learn useful tips to guide the team through the sessions.
- ☐ Collect all materials needed to implement the program. See pages 8-9 for what you need.
- ☐ Identify the space where you will meet and how you will store materials between sessions.
- ☐ Decide how often you will work on the program. Review the session timing suggestions below. You may complete a whole session at once or spread out the session tasks across multiple days.
- ☐ Pick a date and location for the **Celebration Event** (Session 10). Share this information with families if they are invited to attend. The celebration event is outlined on page 20.
- ☐ Organize the children into small teams for the session tasks. The recommended team size is four children.
- ☐ Unpack and organize your **STEAM Park** and **Discover Sets**.
- ☐ Play with the STEAM Park Set to familiarize yourself with the pieces. Try the lessons noted on page 9 if you are new to teaching *FIRST* LEGO League Discover.
- ☐ Familiarize yourself with the **Discover Story** on page 10. Children should look for clues in this wordless story to explore the theme and spark ideas while completing the session tasks.
- ☐ Browse the **Discover Season Resources** page and **Multimedia Resources**.
- ☐ Share information about the program with families, including what the children will work on, and then send one **Discover More Set** home with each child after Session 1.



## Session Timing

The session task times here are suggestions. You may find that you need more or less time to explore and complete the tasks within a session. Be flexible and remember that you can split the tasks up over multiple days if needed.

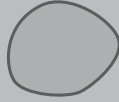


# Sessions At A Glance



## **Session 1: Let's Discover**

What does an archaeologist do?



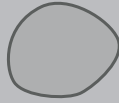
## **Session 2: Exciting Excavation**

Have you ever made a discovery?



## **Session 3: Map Makers**

Why do archaeologists use maps?



## **Session 4: Scale Sorting**

Why do archaeologists sort what they find?



## **Session 5: Ancient Homes**

What do you think houses looked like a long time ago?



## **Session 6: Archaeology Tools**

What tools does an archaeologist use?



## **Session 7: Archaeology Adventure**

Can you tell an archaeology adventure story?



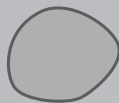
## **Session 8: Time Capsule**

What would you put inside a time capsule for the future?



## **Session 9: Ancient City**

Can you build an ancient city?



## **Session 10: Celebration Event**

Complete the final challenge and share what you learned about archaeology!

# Season Materials

## Discover Set (1 per 4 children)

The Discover Set consists of the Discover model, LEGO® DUPLO® figures, mat, building cards, and four Six Bricks Sets. The Discover model is intended to help children connect to the theme and provide a starting point for discussions. The mat is used as a collaboration space to bring the models together and to generate ideas for building.

The Six Bricks Sets from the Discover Set are intended for use in the classroom during the sessions. Each child will need one of each of the six colored bricks; these sets should be kept in the classroom or stored between sessions.



**Scan to View  
the Discover Set  
Video**



## Discover More Set (1 per child)

The Discover More Set is designed for children to take home and keep even after their Discover experience is complete.



*Each child should take home one Discover More Set, which contains two sets of Six Bricks.*

## Tip!

The STEAM Park Set comes in a cardboard box. You could store the set in a plastic storage tub, which is better for frequent use.

## STEAM Park Set (1 per 8 children)

All teams will use the STEAM Park Set to explore STEAM concepts and form the basis of their team model. This set will be used throughout the sessions and at the celebration event. There is also a *STEAM Park Teacher Guide* that contains lesson plans as well as other ideas and inspiration.

Pre-teaching the following sessions from the teacher guide may be helpful if the class or students are new to using STEAM Park:

1. Functional Elements
2. Welcome to STEAM Park
3. Gears

## Engineering Notebooks (1 per child)

You will receive a set of *Engineering Notebooks*, which provide a place for each child to record their ideas and drawings. Provide one notebook to each child.



## Support Resources

Whether you are new to teaching *FIRST® LEGO® League Discover* or are returning for another season, there are lots of resources available to help you and your students as you progress through

the sessions. The **Multimedia Resources** list is a great place to start if you are looking for websites, tutorials, videos, and online tools related to the content of each session.



Scan for  
Multimedia  
Resources

# Discover Story



The Discover Story is also featured on page 4 of the Engineering Notebook.

# Session 1

## Let's Discover

As you go through these sessions, don't worry if you don't know all the answers – allow the children to ask questions, make discoveries, and iterate on their designs.

### What does an archaeologist do?

Each session has a big question that can be shared to frame the content.

#### Six Bricks Warm-up 1

**Discover Six Bricks I** (See Appendix for full activity.)

Locate the Six Brick Sets in the UNEARTHED™ Discover Set. Provide each child with a set of Six Bricks. They will use these Six Bricks throughout the sessions to learn new skills and explore new ideas. When you finish the warm-up activity, collect the Six Bricks Sets and store them until the next session.

#### Explore Task

Explain what *FIRST*® LEGO® League Discover is to the children [pages 3-5]. The sessions that follow will explore the theme of **archaeology**, a science that studies how humans lived in the past. People who work in this field are called archaeologists.

Look at the **Discover Story** and discuss what the young archaeologists are doing in the illustrations. Ask the students what else they think an archaeologist might do.

An archaeologist could:

- Dig in the ground using **tools** like shovels, rakes, and brushes.
- Look for old things that people used a long time ago.
- Find treasures such as coins or art that might give us clues about how people used to live.

#### Create Task 2

Organize the children into teams of four. The children should work with the same team throughout the experience to develop their knowledge together. Use the STEAM Park Set to have the children build something related to archaeology. Encourage them to build freely to explore the theme. They could build tools, treasure, buildings, or a **dig site**. Look at the Discover Story for ideas.

#### Share Task

Have the children share what they built and how the pieces relate to archaeology. They could share in pairs or in their teams if they aren't comfortable sharing with the entire class. All the children's models will be meaningful, and there is no wrong answer to these tasks.

Have the children complete Session 1 on page 5 of their *Engineering Notebooks*.

When the tasks are finished, everything built in this session should be taken apart and returned to storage.

#### Outcomes

Teams will play with the STEAM Park Set, building creatively and trying new things.

Teams will identify LEGO® pieces and relate them to what they know about archaeology.

#### Tips

- 1 Send a Discover More Set home with each child for home learning and exploration. Check out page 7 for how to use this set for family engagement.



Scan for  
STEAM  
Park  
Lessons

- 2 Check out the Functional Elements lesson for examples.

#### Key Vocabulary

Archaeology, tools, dig site

Ask the children questions with different levels of complexity throughout the session to develop their understanding of the themes. Encourage them to explain their ideas when they share.

### Have you ever made a discovery?

#### Six Bricks Warm-up

**Discover Six Bricks II** (See Appendix for full activity.)

#### Explore Task 1

Have the children share if they have ever found treasure or something that used to be lost. What was it and where did they find it? Review the Discover Story to see where the young archaeologists were exploring when they made their **discovery**. Where else do archaeologists find treasure?

Archaeologists make discoveries:

- In jungles or deserts where something is **buried** in plants or sand.
- At construction sites where big holes have been dug or **excavated**.
- In old shipwrecks found underwater.
- Everywhere!

#### Create Task 2

On the mat, build the excavation model from the Discover Set using the building cards. Archaeologists must dig very carefully to make sure discoveries are not damaged. Take turns to practice taking the model apart and putting it back together.

Use the STEAM Park Set to build around the excavation model. Have the team build creatively around the excavation model and describe where their model is located (e.g., in a city, desert, or forest). Can the team retrieve the bone from the excavation site without damaging the rest of their model?

#### Share Task

Have the children share and describe what they built.

In their *Engineering Notebooks*, have the children write about or draw a place where archaeologists make discoveries.

When the tasks are finished, everything built in this session should be taken apart and returned to storage.

#### Outcomes

Teams will learn about where archaeologists make discoveries.

Teams will explore the excavation model from the UNEARTHED™ Discover Set.

#### Tips

**1** The Discover Story is also found on the back of the mat.

**2** Building cards in the Discover Set provide visual instructions to make the different parts of the Discover model.

#### Key Vocabulary

Discovery, buried, excavate



# Session 3

## Map Makers

This session blends creativity, early problem-solving, and the basics of scientific recording. Take what the teams have learned and challenge them to take it one stage further.

### Why do archaeologists use maps?

#### Six Bricks Warm-up

Can You Remember? (See Appendix for full activity.)

#### Explore Task

Have a discussion about what can be seen on the mat. The mat is similar to a **map** that an archaeologist makes when they want to record where artifacts are found. Archaeologists will stick **flags** into the ground close to artifacts that need to be **recorded**.

Place a flag on the mat next to an artifact and ask the children what they think it might be. Have the children take turns placing the flags on the mat.

Explain that archaeologists use maps to record the exact location of their discoveries, which helps them understand more about how people lived in the past. Relate this to the map the children will create in their notebook, reinforcing the importance of mapping to record information.

#### Create Task 1

In the *Engineering Notebook*, draw a map of a room. It could be the room your team meets in or a room somewhere else. On the map, include the door, windows, furniture, and any other important things in the room.

Have the children place the flags from the Discover Set on something they drew. Explain that flags help archaeologists remember where important objects were discovered, just like how they are using flags in this task.

Alternately, place the flag on an object in the room. Have the children find the flag and draw the object in their notebook. 2

#### Share Task

Have the children talk about the map that they drew of a room. They can share about the features they drew and where they decided to place their flags.

When the tasks are finished, everything built in this session should be taken apart and returned to storage.

#### Outcomes

Teams will learn how archaeologists create maps of their discoveries.

Teams will create a simple map of a room in their *Engineering Notebooks*.

#### Tips

- 1 Help the team understand why maps are useful for more than just archaeology.
- 2 Use colored pencils to draw the map and pick one color for flags.

#### Key Vocabulary

Map, flag, record



# Session 4

## Scale Sorting

Introduce the tasks by showing real-world examples of artifacts found at archaeological dig sites from the **Multimedia Resources**. Encourage productive talk as the children share their ideas with each other. Circulate and redirect children to the tasks as needed.

### Why do archaeologists sort what they find?

#### Six Bricks Warm-up

**What Can You Build?** (See Appendix for full activity.)

#### Explore Task

Have the children review the Discover Story and discuss what the young archaeologists found in the tunnel. Discoveries of **artifacts** should be recorded so other people know what was found, know where it was located, and can make comparisons. Artifacts can be valuable treasures, but they can also be everyday objects used by people in the past. Artifacts that teach us about everyday life are very important to our understanding of how people used to live. Have the children complete the **sorting** activity in the *Engineering Notebook*.

Look at the artifacts included in the Discover Set. Discuss the scooter and the **scale** by asking the children how they think they were used a long time ago. How are they different?

#### Create Task 1

Choose pieces from the STEAM Park Set to represent artifacts. Have the children sort them into categories the way an archaeologist would. The categories could include:

- Size
- Shape
- Color
- Fun
- Weight
- Food
- Work
- Transportation

Repeat the activity with a new set of artifacts or different categories. Sorting or grouping artifacts helps archaeologists make comparisons. You could also use the scale to sort pieces by weight. Sometimes archaeologists need to make guesses about what an artifact might be.

#### Share Task

Have the children talk about why they sorted the pieces the way they did. They could explain how grouping them in a certain way would be helpful for an archaeologist.

When the tasks are finished, everything built in this session should be taken apart and returned to storage.

#### Outcomes

Teams will practice sorting objects into different categories.

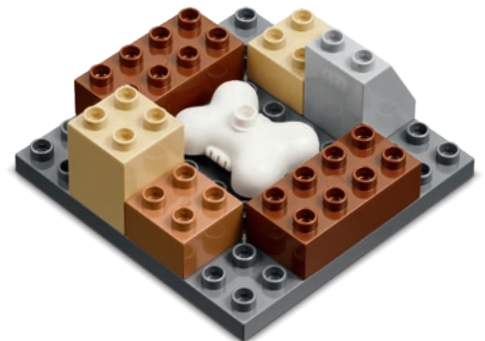
Teams will explore how archaeologists sort the things they find when excavating.

#### Tips

- 1 Start small with two categories and introduce new pieces as the children make progress.
- 2 You could have the children build small models of other types of artifacts.

#### Key Vocabulary

Artifact, sort, scale



The Six Bricks warm-up activities are a great way to introduce some of the ideas that will be explored in the session. Practice building with the bricks as a group to set the children up for success in the Create task.

## What do you think homes looked like a long time ago?

### Six Bricks Warm-up

**Build the Picture** (See Appendix for full activity.)

#### Explore Task 1

Ask the children what they think homes looked like a long time ago. The homes that people lived in then looked different from the homes we live in today.

Ask the children what materials they think would make a strong house. Sometimes, buildings are made from natural **materials** like wood, mud, or stone that fall apart over long periods of time. Archaeologists hope to make discoveries that are in good condition.

When archaeologists find damaged buildings, they try to figure out what they used to look like. **Technology** can be used to build digital or physical models of what buildings looked like when they were new.

#### Create Task 2

Using the STEAM Park set, have the team build a model of a simple home on the mat. When the team is finished building their model, tell them they need to take it apart one piece at a time and **rebuild** it on the other end of the mat. The rebuilt model should look as close to the original as possible. This mimics how an archaeologist would excavate a site and recreate something to study it.

#### Share Task

In their *Engineering Notebook*, have the children draw what they think an ancient home looked like.

When the tasks are finished, everything built in this session should be taken apart and returned to storage.

#### Outcomes

Teams will use critical thinking to make connections between the past and present.

Teams will document their ideas of ancient homes in their *Engineering Notebook*.

#### Tips

1 Share what old or ancient homes looked like where you live.

2 This would be a great activity to use with one set of Six Bricks. More bricks can be added if the team needs a challenge.

#### Key Vocabulary

Materials, technology, rebuild



Provide real-world examples, including photos and videos, of the tools used by archaeologists in your discussions. Be sure to include examples of technology.

## What tools does an archaeologist use?

### Six Bricks Warm-up

**Back-to-Back** (See Appendix for full activity.)

### Explore Task 1

Have the children think about the different things that happen at a dig site. They could talk about digging, cleaning, recording discoveries, or transporting artifacts. Ask the children what tools would be useful for completing those tasks.

Archaeologists have a variety of tools they use at a dig site. Discuss the following:

- **Shovel**
- **Brush**
- **Wheelbarrow**
- Computer
- Ruler
- Bucket
- Notebook
- Camera

### Create Task

Using the STEAM Park and Discover Sets, have the team build examples of tools used at a dig site. First have the team build a shovel, and then challenge them to think of another tool to help an archaeologist.

Select an area of the mat and challenge them to build something that would help them in that spot.

### Share Task 2

Ask the children to talk about the tools they created and how they would be helpful on a dig site. Have the children complete the activity in their *Engineering Notebooks*.

When the tasks are finished, everything built in this session should be taken apart and returned to storage.

### Outcomes

Teams will explore the variety of tools and technology that archaeologists use at a dig site.

Teams will learn the importance of making archaeological discoveries.

### Tips

- 1 Discuss safety when using tools. Archaeologists must protect themselves and the artifacts they are discovering.
- 2 Have the children describe the pieces found in the Discover Set.

### Key Vocabulary

- Shovel, brush, wheelbarrow



# Session 7

## Archaeology Adventure

Encourage teamwork by having the children help one another in completing tasks such as working together to build models or taking turns to contribute to the story.

### Can you tell an archaeology adventure story?

#### Six Bricks Warm-up

**It Takes a Team** (See Appendix for full activity.)

#### Explore Task

When something new and exciting is found, archaeologists may need to work quickly to plan how to excavate. Sometimes, artifacts are found in unusual places. For example, how would an archaeologist **recover** an artifact buried under a house or a school?

To prepare for the next task, spark imagination in the team by creating a character for an archaeology **adventure**. Introduce the character to the children and explain that they will tell the story of an archaeologist who finds an ancient treasure and **shares** it with the community. Describe a location where the dig will take place. **1**

#### Create Task

Have the children build and tell the story of the archaeologist discovering an artifact. Use the Discover Set or STEAM Park Set. They should include the following things in their model:

- Archaeologist
- Tool
- Dig site
- Buried treasure or artifact

Look at the Discover Story or Mat for inspiration. The team can build their model on the mat, which may help them visualize the story create. **2**

#### Share Task

Ask the children to write or draw their story in their *Engineering Notebooks*. What was the artifact they discovered? Encourage them to imagine what they would do if they were real archaeologists.

When the tasks are finished, everything built in this session should be taken apart and returned to storage.

#### Outcomes

Teams will tell a story about an archaeological adventure to recover an artifact.

Teams will think about the archaeological process from discovery to sharing what they found.

#### Tips

- 1** You can use one of the LEGO DUPLO figures from the Discover or STEAM Park Sets.
- 2** The team can build the artifact they are trying to recover.

#### Key Vocabulary

Recover, Adventure, Share



Scan for  
STEAM  
Park Ramps  
Lessons



Previous sessions have had the children thinking about the past. The concept of a time capsule will help them understand the value of saving memories and artifacts from today for the future.

## What would you put inside a time capsule for the future?

### Six Bricks Warm-up

**Build a Cube** (See Appendix for full activity.)

### Explore Task 1

Ask the children if they have ever heard of a **time capsule**. Time capsules are a way for people to pass information to **future** generations that represent how they lived at the time. Time capsules help to **preserve** their contents for a long time. Archaeologists sometimes find and study time capsules to understand the past.

Discuss what kinds of things could be put inside of a time capsule. You could ask the children what they think people in the future would find interesting about their life today. What would someone think if they found these things many years from now?

### Create Task

Have the children build something small to represent what they would like to put inside a time capsule. Build a small capsule out of LEGO® bricks or other materials to protect what you placed inside. Encourage the children to think about how archaeologists find artifacts hidden away. What do the children want people to discover in the future? Where should the capsule be placed so it is protected? Close the capsule when the team is finished building.

Decide how long the capsule should remain closed. It could be a week, a month, or longer! When it is opened, the children can reflect on the things they have learned about archaeology.

### Share Task

Ask the children to recall what a time capsule is and why archaeologists are interested in them. Have the children complete their *Engineering Notebook* page by drawing the item they would put in a time capsule and share what they want people to know about it.

When the tasks are finished, everything built in this session should be taken apart and returned to storage.

### Outcomes

Teams will learn how archaeologists study history through time capsules.

Teams will create a time capsule to be opened in the future.

### Tips

- 1 Check to see if there are any sealed or recently opened time capsules locally.
- 2 Plan to open the time capsule before your time as a team is complete.

### Key Vocabulary

Time Capsule, Future, Preserve



# Session 9

## Ancient City

Teams have learned about archaeology and how uncovering artifacts can teach about how people used to live. This session will challenge teams to imagine what an ancient city once looked like. Show real-world photos to inspire them.

### Can you build an ancient city?

#### Six Bricks Warm-up

**Build a Bridge** (See Appendix for full activity.)

#### Explore Task

Ask the children to **reflect** on their experience throughout the sessions. The celebration event is next; reviewers will ask them about what they learned during the UNEARTHED™ season. They could talk about:

- Archaeologist jobs (collecting, digging, and mapping).
- Artifacts (treasure, time capsules, or things people used long ago).
- Tools (shovels, brushes, and wheelbarrows).

Explain to the children that when archaeologists have the right tools and the right information, they can describe how people used to live. Share photos of ancient cities and ask the children to share what it would have been like to live there.

#### Create Task 1

Tell the children to work together to create an ancient city on the mat. They should build places where people lived. Their model should show things that were important to the imaginary people that lived there. Encourage the children to come up with stories about their ancient city as they build. You could ask them questions like:

- What makes your ancient city special?
- What games did children play in the ancient city?
- How did they build their buildings?
- If you lived in this city, what job would you have?

Archaeologists are **storytellers** because they uncover clues to the past. By building their own ancient city model, children will explore the importance of artifacts, tools, and **history** while building their creativity, teamwork, and storytelling skills.

#### Share Task

After the children are finished building, have them talk about their ancient city. They can share answers to the questions above as a team or they can share what they contributed.

Have the children complete Sessions 9 and 10 in their *Engineering Notebooks* before the celebration event.

#### Outcomes

Teams will reflect on their experiences throughout the sessions.

Teams will work collaboratively to build an ancient city.

#### Tips

- 1 Encourage the children to come up with stories about the people in their ancient city.
- 2 You could encourage children to collaborate by assigning roles like city planner, builder, fixer, and storyteller.

#### Key Vocabulary

Reflect, Storytelling, History

THE CELEBRATION  
EVENT IS NEXT



# Session 10

## What is the Celebration Event?

The final session in the *FIRST*® LEGO® League Discover experience is a celebration event. All children should participate in the celebration. The celebration could be held in your usual meeting space, a classroom, a library, or anywhere else that has appropriate room for the teams to spread out, build, and have fun.



### BEFORE THE EVENT:

- Choose a time and space for the event.
- Read all of **Session 10** to understand what teams and spectators will do during the event.
- Send invitations to families, caregivers, teachers, and friends.
- Find and assign volunteer reviewers who will listen to what the children have learned and provide encouraging feedback.
- Print the reviewing prompts on page 22 and award certificates.

### DURING THE EVENT:

- Lay out the mats so teams can build on them. You could push two mats together so teams can work together.
- Hand out reviewing prompts and assign at least one adult reviewer to each pair of teams.
- Get the children excited for the final challenge.
- Ensure the reviewers talk with the children.
- Hand out certificates at the end of the celebration.
- Have fun and celebrate the children's achievements.

### AFTER THE EVENT:

- Continue to teach STEAM Park lessons.
- Teach additional STEAM activities related to the theme.
- Find opportunities to use the vocabulary learned through the experience.

## Welcoming the Teams (15 minutes) 1

Welcome the children to the event. Let them know there will be a final challenge, followed by time to share and answer questions about what they learned with reviewers. Welcome any guests and reviewers and let them know what to do during the event.

The teams will use their ideas to build a model that represents a discovery made at a dig site. They will use all parts of their UNEARTHED™ Discover Set. Reviewers will ask the teams about what they learned and built and then give encouraging feedback. The reviewing prompts will help ensure teams can relate what they do at the event to the sessions they have completed.

## Final Challenge (30+ minutes) 2

- 5 minutes:** Tell the children to select or build a small artifact that represents something their team learned. The artifact should be small enough that it can be covered in the next part of the challenge. They can use pieces from the Discover or STEAM Park Sets or any other LEGO® DUPLO® elements to build the artifact. The team should place their artifact on the mat.
- 10 minutes:** Tell the teams they will use LEGO elements to build on top of their artifact, covering it up at least partially. This is the first step in creating a dig site. The bricks must be connected to each other.
- 10-15 minutes:** Tell them they will now act like archaeologists to very carefully remove their team artifact from underneath the LEGO bricks. Remind them that archaeologists use tools and make a plan before excavating artifacts. Have the children carefully remove their team artifact and then rebuild the LEGO brick structure.
- Optional:** Have teams trade dig sites to see if another team can recover the artifact.

## Reviewing the Teams (5 minutes per team) 3

The reviewers should observe the teams during the final challenge. After teams are finished building, the reviewers can begin talking with them, asking questions, and viewing their *Engineering Notebooks*. Reviewers can use the provided prompts to start a conversation and share encouraging feedback.

## Closing Celebration (10+ minutes) 4

Allow plenty of time to celebrate each team's achievements in front of everyone at the event. You could extend this time and let the children present what they learned.

### Tips

- It is important that teams can relate what they do at the event to the sessions they have completed.
- If possible, assign at least one adult to each pair of teams. They can help the teams stay on task.
- The reviewers will decide on awards for each team. Reviewing prompts are on page 22.
- Print certificates for every child. Have the children come up one at a time, or in their team, to be recognized and applauded. A great *FIRST® LEGO® League Discover* event always ends in celebration.



# Reviewing Prompts

These prompts are suggestions for reviewers to start conversations with the children and to give them encouraging feedback.

For each area of the event, reviewers could say to the teams:

## Tip!

Make copies of this page to hand out to reviewers.

### Final Challenge

Tell me about:

- Your design and how it works.
- Why you built your design that way.
- How your team decided what to build.
- How you completed the challenge.

### Season Theme

Tell me about:

- Something new you learned during the season.
- Something you wrote or drew in your *Engineering Notebook*.
- How you explored the season theme with your team.
- How your builds connected to the theme.

### Working as a Team

Tell me about:

- How you worked together.
- What job you had on your team.
- How you shared ideas with your team.
- How you helped your teammates.
- How your team solved problems together.

### Reviewer Feedback

- I'm impressed with how you solved the challenge by. . . .
- I like how the theme inspired you to. . . .
- You really showed teamwork when you. . . .

### Awards

At the end of the event, every team should win an award, and more than one team can win the same award. Coaches or reviewers can present the awards to the teams.

Choose from this list of official *FIRST*® LEGO® League Discover awards:

- Incredible Innovators
- Cooperative Creators
- Excellent Explainers
- Brilliant Builders
- Enthusiastic Engineers
- ... or create your own awards!



Scan for Award  
Certificates and  
Script Templates

# Six Bricks Activities



Scan for  
More  
Activities

## Discover Six Bricks I

### Base Activity

1. Each child separates their bricks and spreads them out.
2. They close their eyes and shuffle their bricks around.
3. With eyes still closed, each child picks up any brick and holds it up high.
4. Now, they can open their eyes and see what color they hold.

### Part 2

5. Let them pick any brick, look at it carefully, and turn it around and over in their hands.

### Guiding Questions

- *What color brick do you have?*
- *Can you name all the different colors?*
- *Can you sort the bricks into warm and cold colors?*
- *Can you create a rainbow with your bricks?*
- *How does your brick feel (e.g., rough, smooth, hard, soft, shiny, or dull)?*
- *What spaces and shapes can you see on your brick?*
- *How many studs does each brick have?*

### Children learn to:

- Play and become familiar with the bricks.
- Listen and respond to questions.
- Use descriptive language.



## Discover Six Bricks II

### Base Activity

1. The children lay out their bricks in any order. (See the picture.)
2. Give specific instructions about what to do with the bricks and ask the children to follow along. For example:
  - Put a finger on the red brick and move it left.
  - Turn the dark blue brick upside down.
  - Connect the green brick on the red and cover all studs.

Vary the instructions you give. Consider different colors, left vs. right, and alternate positions.

### Guiding Questions

- *How did you keep your attention?* (Encourage some of the children to explain in turn.)
- *How can we make this activity harder?* (Give more instructions, say them faster, and so on.)

### Children learn to:

- Use spatial skills to orient themselves.
- Keep attention and resist distraction.
- Initiate activities.



# Six Bricks Activities

## What Can You Build?

### Base Activity

1. In groups of four, the children mix their bricks together.
2. The children use their bricks to build a model of a home where people lived a long time ago.
3. They take turns describing the model and explaining their model's features.

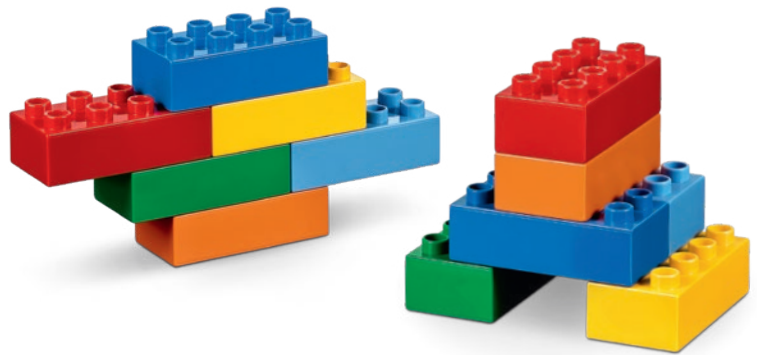
This activity can also be linked to a theme, story, or book.

### Guiding Questions

- *Where is the home located?*
- *What is the home made of?*
- *Who lived in the home?*

#### Children learn to:

- Invent and describe characters (for stories).
- Create stories in groups.
- Ask questions and suggest answers.



## Build the Picture

### Base Activity

1. In groups of four, the children mix their bricks together and choose a leader.
2. Whisper a word related to archaeology (e.g., shovel, scale, brush, or artifact) to the leader.
3. Back with their group, the leader quickly builds a representation of that word for the others to guess.
4. The group may not ask questions but can call out words. The leader can say when they get it right.

### Part 2

5. The group chooses a new leader and repeats the activity with a new word.
6. Continue until all children in the group have been a leader.

### Guiding Questions

- *How did the first group figure out the word?*
- *What can you do to help the next leader of the group?*

#### Children learn to:

- Engage in creative problem-solving.
- Develop their own ways of carrying out tasks.
- Use strategies learned earlier (representing).



# Six Bricks Activities

## Can You Remember?

### Base Activity

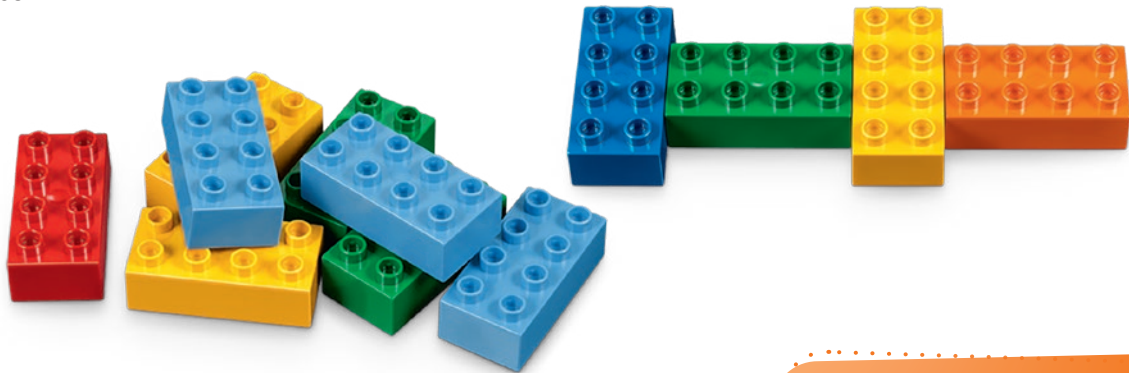
1. Take any two bricks and secretly build one on top of the other, covering all the studs.
2. Hold them up for the children to see for five seconds and then hide them away.
3. The children copy the brick sequence.

### Guiding Questions

- *Match your sequence to mine. Are they the same?*
- *If it is different, how can you make it the same?*

### Children learn to:

- Hold information in their memory.
- Keep attention and resist distraction.
- Speak about how they have done something.



## Back-to-Back

### Base Activity

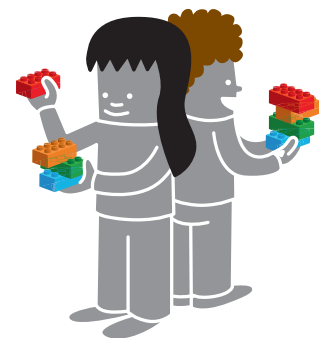
1. Children sit or stand in pairs with the same four bricks.
2. One child builds a model and then explains to their partner how to build the same model.
3. The partner builds it without looking or asking questions.
4. The pairs compare their models and discuss how it went.
5. Children then swap roles and repeat the activity.

### Guiding Questions

- *How did you explain how to build the model?*
- *What instructions were the most helpful?*

### Children learn to:

- Use descriptive language.
- Think from another person's perspective.
- Speak about their own and others' behavior and consequences.



# Six Bricks Activities

## It Takes a Team

### Base Activity

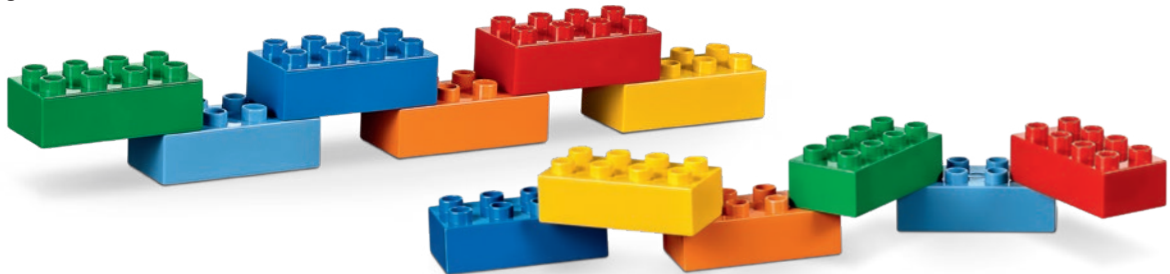
1. In groups of four, the children mix their bricks together.
2. The children work together to build a long line of connected bricks to represent a person that is part of a team and how they support each other to achieve success.
3. The children should think about what happens if a brick is missing from the line.

### Guiding Questions

- *What job does each brick represent?*
- *How do the different jobs work together?*
- *What would happen if there was a break in the line?*

### Children learn to:

- Use strategies learned earlier (patterns).
- Negotiate when and how to carry out a task.
- Imagine and tell stories.



## Build a Cube

### Base Activity

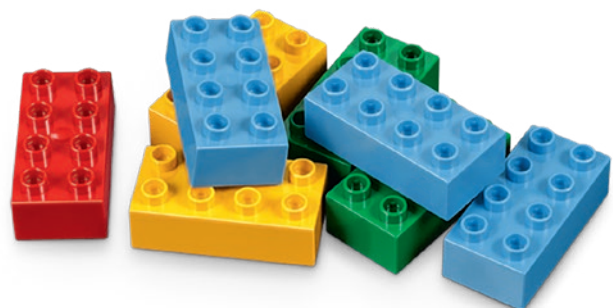
1. Children build a cube with Six Bricks so it does not fall apart.

### Guiding Questions

- *Which two colors are on top, at the bottom, and in the middle?*
- *In pairs, how can one of you give instructions for the other to build a cube?*
- *What types of instructions are easier and harder to use?*

### Children learn to:

- Enjoy solving problems.
- Engage in collaborative tasks with peers.



# Six Bricks Activities

## Build a Bridge

### Base Activity

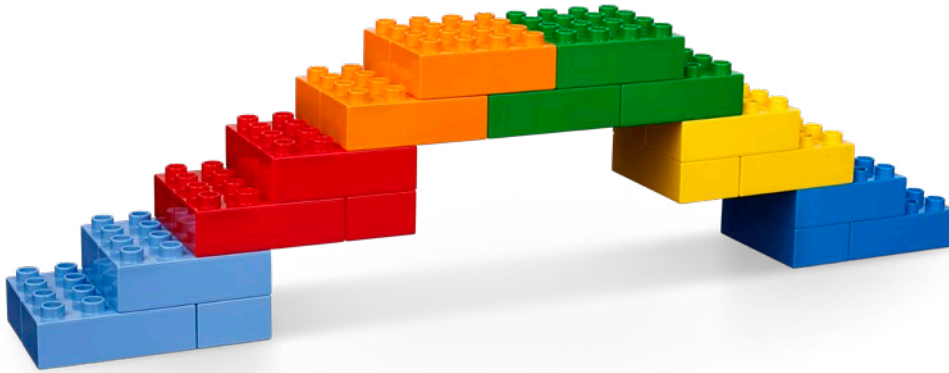
1. In groups of four, children combine their bricks and think of ways to build a bridge. The bridge can be built on the Discover Mat to connect two areas.
2. Give the children time to discuss and plan which areas they will connect and how they will connect them.

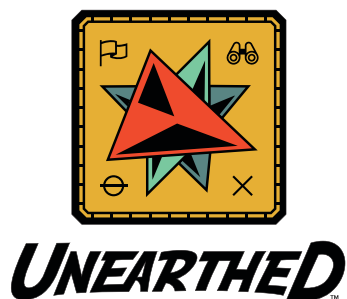
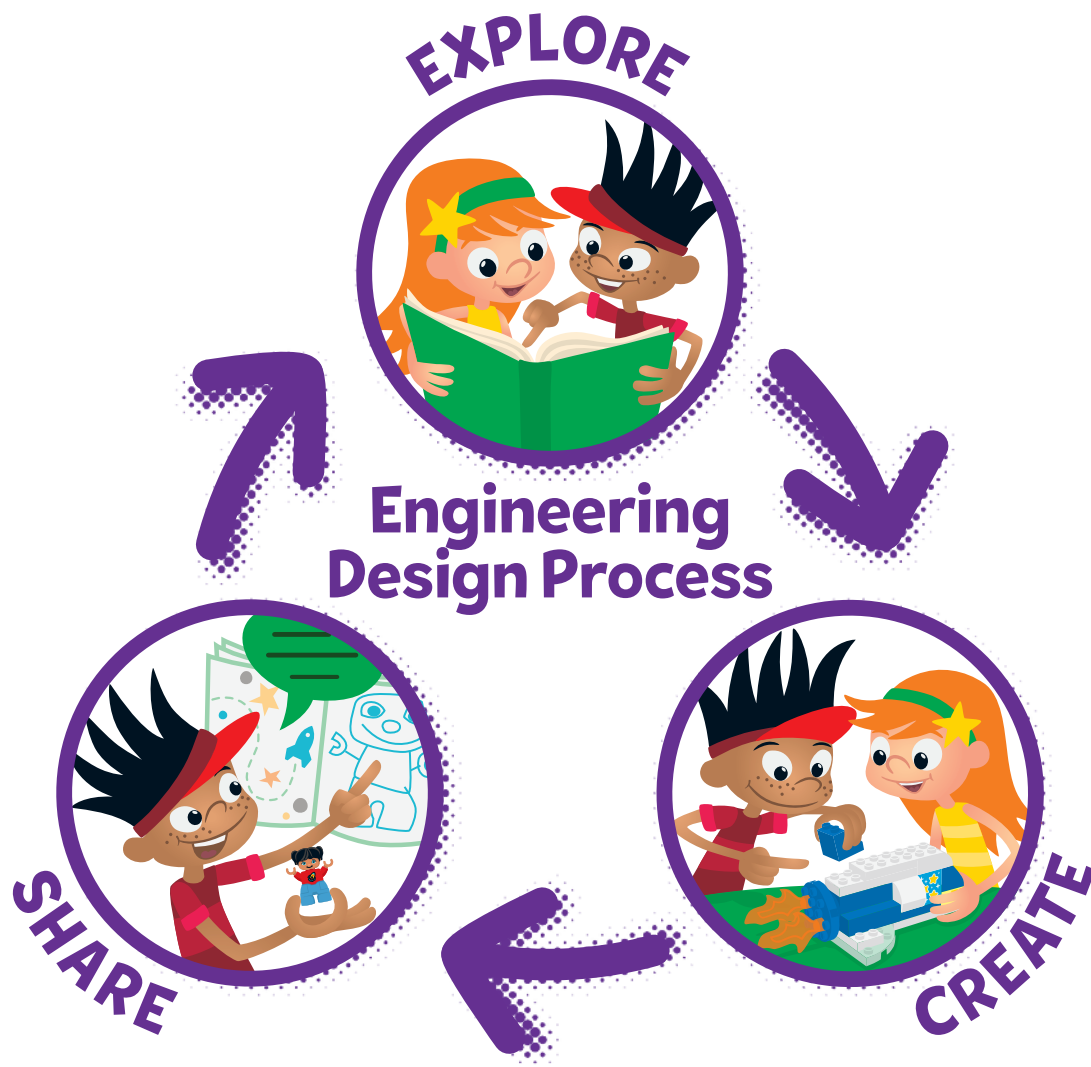
### Guiding Questions

- *Why did you choose to connect these two areas of the Discover Mat?*
- *Did your original plan work? What ideas did you change?*
- *How did you work together with your team?*

### Children learn to:

- Engage in creative problem-solving.
- Negotiate when and how to carry out tasks.
- Make reasoned choices and decisions.





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