Introduction to FIRST® LEGO® League Discover

In FIRST® LEGO® League Discover, children are introduced to the fundamentals of STEM while working together to solve fun challenges and building models using LEGO® DUPLO® bricks. Students gain 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.

Welcome to CARGO CONNECT℠

Welcome to the FIRST® FORWARD℠ season. This year’s FIRST LEGO League Discover Challenge is called CARGO CONNECT℠. Children will learn about how packages are transported, sorted, and delivered to their destinations. See page 5 for a description of the CARGO CONNECT℠ Challenge that you can share with your children. A scaled-up version of this story can also be found on the mat.

Children will think and behave like designers and engineers, developing their ability to observe, question, gather information, and ask more questions.

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 four using pieces from STEAM Park by LEGO® Education and a CARGO CONNECT Discover 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 Do You Need?

Discover Set *(serves up to 4 children)*

The Discover set consists of the CARGO CONNECT™ Discover model (truck, packages, sorting center, and destinations), LEGO® DUPLO® figures, Six Bricks sets, mat, and building cards.

The Discover model is intended to help children connect to the theme and provide a starting point for discussions and further building. The mat is used as a collaboration space to bring the models together.

Each Discover set includes five sets of Six Bricks for use in the classroom. There are enough sets to give one to each child, plus one for the teacher. Each child will need one of each of the six colored bricks. The Six Bricks in this set are in addition to the Six Bricks in the Discover More set that goes home.

Tip

You could keep the children’s Six Bricks in a separate, smaller container.
Session 1: Let’s Discover

As you go through these sessions, don’t worry if you don’t know all the answers – and remember, there is no such thing as failure! Also for the children, know that they will make mistakes and iterate on their designs.

What can we build with STEAM Park related to transportation?

Six Bricks Warm-Up (15 minutes)

Discover Six Bricks (see Appendix for full activity)
The children will use the Six Bricks both in the classroom and at home with the Discover More set to learn new skills and explore new ideas.

Task 1 (10 minutes)
Introduce the theme of transportation. Have a discussion on these questions to start the session and explore the children’s understanding. Recognize times in the school day when the children engage in transportation activities.

To encourage language use, you could ask them:
• What is transportation?
• What is a destination?
• How are people and things transported?

Task 2 (25 minutes)
Have the children build using the different pieces in STEAM Park. Encourage them to play freely and build anything they want, using their imaginations and discovering the pieces’ functions. Help them identify pieces that could relate to transportation and vehicles.

Task 3 (10 minutes)
Have the children share and explain what they built and how the pieces they identified relate to transportation. All the children’s builds will be correct, and there is no one right answer to these sessions.

Outcomes
The children will play with STEAM Park, building creatively and trying new things.
The children will identify LEGO® elements that relate to transportation.

Tips
1. Send home the letter (see page 10) with the Discover More set with each child.

Key Vocabulary
destination, function, transportation

Playful Learning in Action
The children will use discovery to explore new ideas with STEAM Park. They will wonder and question what the pieces do.
Transportation Journey

Packages (Origin)

Sorting Center

Transportation Options

Cold Destination

Hot Destination

Front Door

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