



EXPLORE

# Multimedia Resources



# FIRST® LEGO® League Explore

## Multimedia Resources

Below is a session-by-session list of Multimedia Resources for this season. These resources include links to websites, videos, building instructions, and other online tools related to the content of each session.

Some of the resources below are from third-party sites not developed or managed by FIRST® or LEGO® Education, but they're too great not to share!

You could share resources during sessions and/or encourage your students to explore them between sessions (with permission and supervision from a parent or guardian).

General Resources		
<a href="#">Support from LEGO Education</a>	<a href="#">Class Pack- FIRST LEGO League Explore</a>	<a href="#">FIRST LEGO League (global)</a>
<a href="#">Email for General Support</a>	<a href="#">Teamwork Makes the Dream Work FIRST LEGO League Music Video</a>	<a href="#">FIRST LEGO League (US)</a>

## Professional Development and Training Resources

### Hybrid & Remote Learning Resources (for PLAYMAKERS season)

- [Hybrid & Remote Learning Resources from FIRST](#)
  - [FIRST LEGO League Explore Guide for Distance Education](#)
  - [Suggested sequences for different implementation scenarios](#)
- [Hybrid & Remote Learning Resources from LEGO Education](#)

### FIRST Resources

- [FIRST Certified Professional Development](#)
- [FIRST Education Philosophy](#)
- [FIRST LEGO League Explore Scope and Sequence Options](#)
  - [15 hours](#) / [30 hours](#) / [45 hours](#) / [65 hours](#) / [80 hours](#)
- [Explore Skills Progression](#) - student learning outcomes by grade level
- [Standards Alignments](#) for FIRST LEGO League Explore
- [FIRST Equity, Diversity, and Inclusion Training](#)
- [FIRST Equity, Diversity, and Inclusion Video Playlist](#)
- [FIRST Impact](#)

## Additional Professional Development Resources and Research

- [What is Computational Thinking?](#)
- [Learning through Play: Education does not stop when recess begins](#) article from The Atlantic
- [Playtime Matters](#) Research Report from Outdoor Play and Learning

## Family Engagement

- [FIRST Family Engagement Resources](#)
- [LEGO Education Let's Build Together](#)
- [Articles for Families on Play](#) from NAEYC

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## LEGO Education & LEGO Foundation Resources

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### General Resources

- [Learning Through Play](#)
- [LEGO Education Teacher Community](#)
- [Self-Guided Professional Development from LEGO Education](#)
- [LEGO Foundation's Research Knowledge Base](#)
- [Buying Replacement Parts](#)

### LEGO Education WeDo 2.0 Resources

- [LEGO Education WeDo 2.0 Element Survey Page](#)
- [Download WeDo 2.0 Software and view System Requirements](#)
- [WeDo 2.0 Product Support](#)
- [WeDo 2.0 Lessons](#)
  - [Spy Robot Lesson](#)
  - [Glowing Snail Lesson](#)
  - [Cooling Fan Lesson](#)
  - [Moving Satellite Lesson](#)
  - [Milo, the Science Rover Lesson](#)
  - [Moving Materials Lesson](#)
  - [City Safety lesson](#)

### LEGO Education SPIKE Essential Resources

- [Software Download](#)
- [FIRST LEGO League Explore Unit](#)
- [Element Survey Page](#)
- [Getting Started with SPIKE Essential](#)
- [SPIKE Essential Unit Plans](#)
- [SPIKE Essential Resources](#)

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## Pre-Session Resources

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### **FIRST LEGO League Explore**

- [Getting Started with FIRST LEGO League Explore video](#)
- [About FIRST LEGO League flyer](#)
- [Explore Team Management Resources](#)
- [Start A FIRST LEGO League Explore Team Flyer](#)
- [FIRST LEGO League Explore Mini Brochure](#)
- [FIRST LEGO League Explore: How It Works](#)







### **CARGO CONNECT<sup>SM</sup> General Season Resources**

- [FIRST LEGO League Explore CARGO CONNECT Informational Video Playlist](#)
  - [CARGO CONNECT Explore Introduction: Materials and Guidebooks Video](#)
  - [CARGO CONNECT Explore Set: Unboxing Video](#)
  - [CARGO CONNECT Explore Set: Explore Model](#)
  - [CARGO CONNECT Explore Set: Mat, Part I](#)
  - [CARGO CONNECT Explore Set: Mat, Part II](#)
- [CARGO CONNECT season resources](#) page (includes student certificates)
  - [Explore Set Building Instructions Book 1](#)
  - [Explore Set Building Instructions Book 2](#)
  - [Explore Overview](#)
  - [Explore Welcome Letter](#)
  - [Explore Introduction](#)
- Season Videos
  - [CARGO CONNECT Season Launch](#)
  - [CARGO CONNECT Season Teaser](#)
  - [CARGO CONNECT Explore Set](#)
- [FIRST FORWARD and CARGO CONNECT season content](#) (Logos to use in flyers, emails, or other resources you may wish to create)
- CARGO CONNECT *Team Meeting Guide*, *Engineering Notebook* and Individual Session PowerPoint Slides ([Google Slides version](#))
  - Found on Thinkspace through your *FIRST* Dashboard for US/CAN or through your country's Program Delivery Partner.

## CARGO CONNECT Explore Session Resources









### Session 1

### Let's Explore

	<a href="#"><u>Amazon's custom electric delivery vehicles hit the road in LA</u></a>	From Amazon News – Length 1:01
	<a href="#"><u>Henry Ford Museum</u></a>	Virtual Field Trip for students
	<a href="#"><u>Supply Chain Modes of Transportation</u></a>	Background information for teachers from Blume Global
	<a href="#"><u>Getting to the Game</u></a>	Interactive Story for students from PBS
	<b>Tractor-Trailer Trucker: A Powerful Truck Book</b> by Joyce Slayton Mitchell and Steven Borns	Non-Fiction Book
	<b>Transportation in Many Cultures (Life Around the World)</b> by Martha Elizabeth Hillman Rustad	Non-Fiction Book







### Session 2

### Let's Transport

	<a href="#"><u>Modes of Transport</u></a>	From Learning Junction – Length 3:44
	<a href="#"><u>Unique Look Inside One of the Biggest Container Ships in the World</u></a>	From Discovery Australia – Length 7:20
	<a href="#"><u>Transportation Information from BrainPOP</u></a>	Background Information for teachers
	<a href="#"><u>New York Transit Museum</u></a>	Remote learning resources including virtual field trips
	<a href="#"><u>Let's Move: Identifying Modes of Transportation</u></a>	Extension activity teacher lesson plan from Education.com
	<a href="#"><u>The Cat in the Hat Bridge-a-Rama Game</u></a>	Interactive game from PBS Kids for students
	<b>Cars and Trucks and Things That Go</b> by Richard Scarry	Fiction Book
	<b>Cars, Trains, Ships, and Planes: A Visual Encyclopedia of Every Vehicle</b> by DK	Non-Fiction Book







## Session 3

## Let's Sort

	<a href="#">Journey of a Parcel</a>	From the New Zealand Post – Length 4:06
	<a href="#">Transportation</a>	Background information for teachers or older students from Britannica Kids
	<a href="#">Artifact Adventure game</a>	Interactive game from PBS Kids for students
	<b>The Giant Hug</b> by Sandra Horning	Fiction Book
	<b>The Jolly Postman</b> by Allan Ahlberg	Fiction Book
	<b>The Post Office Book: Mail and How It Moves</b> by Gail Gibbons	Non-Fiction Book

## Session 4





## Let's Drive

	<a href="#">How Amazon Delivers Packages So Fast</a>	From Tech Vision – Length 5:18.
	<a href="#">The Hidden Toll of Shipping</a>	Background information for teachers from Gizmodo
	<a href="#">Ten Transportation Activities for Kids</a>	Extension activity ideas for teachers from kinderart.com
	<a href="#">Cyberchase Railway Hero Game</a>	Interactive game from PBS Kids for students
	<b>Never Mail an Elephant</b> by Mike Thaler	Fiction Book
	<b>Big Book of Trucks</b> by DK Publishing	Non-Fiction Book

## Session 5








## Let's Motorize

	<a href="#">Inside Australia Post's High Tech Parcel Sorting Facility</a>	From 7News Australia – Length 1:30
	<a href="#">How Container Ships Work</a>	From PolyMatter – Length 9:46

	<a href="#">Containers Shipping Prices Skyrocket as Rush to Move Goods Picks Up</a>	Background information for teachers from the Wall Street Journal
	<a href="#">How Transportation Transformed America: Going to Market Lesson Plan</a>	Extension activity lesson plan for teachers from the US Library of Congress
	<b>Casey the Container: And her first day in port</b> by Kristina Bowden	Fiction Book
	<b>Transportation (Around the World)</b> by Margaret Hall	Non-Fiction Book


## Session 6






## Let's Be Safe

	<a href="#">Sorting and logistics handling systems</a> at Deutsche Post DHL	From Deutsche Post DHL (Germany) – Length 2:48 *Have your students watch for the safety features shown
	<a href="#">Behind the scenes at Christmas: Heathrow Worldwide Distribution Centre</a>	From Royal Mail (United Kingdom) – Length 2:43 *Have your students watch for the safety features shown
	<a href="#">How Robots Can Assist - Not Replace - Humans in Factories</a>	From CNBC – Length 8:43
	<a href="#">Transportation Modes</a>	Background information from the Geography of Transport Systems
	<a href="#">Transport, Past and Present</a>	Extension activity lesson plan for teachers from the US Mint
	<b>“A Package for Mrs. Jewls”</b> from Wayside School is Falling Down by Louis Sachar, pp. 21-31	Fiction Story
	<b>Diary of a Pilot</b> by Angela Royston	Non-Fiction Book

## Session 7






## Let's Improve

	<a href="#">Ford's Delivery Robot Walks on Two Legs Like a Human</a>	From Tech Insider – Length 3:00 Search for “delivery robots” to find other videos about delivery solutions.
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	<a href="#">How UPS Is Using Big Data to Transform Package Deliveries</a>	From CNBC – Length 3:48
	<a href="#">Human and Robots Working together</a>	Amazon video and article
	<a href="#">US DOT Safety Resources</a>	Background information from the US Department of Transportation
	<b>T-Bone the Drone</b> by Shanda McCloskey	Fiction Book
	<b>Drones</b> by Katie Marsico	Non-Fiction Book





## Sessions 8&9

## Build Team Model

	<a href="#">Recap of the 2019 FIRST LEGO League World Festival in Detroit</a>	Length 1:09. *Have your students watch for example team models in the video.
	<a href="#">Tracking for Priority Shipping</a>	From United States Postal Service – Length 1:26
	<a href="#">Carl Gets Some Rest: A Coloring and Story Book</a>	A downloadable coloring about transportation alternatives from the US Environmental Protection Agency
	<b>Brave Irene</b> by William Steig	Fiction Book
	<b>Rosie Revere, Engineer</b> by Andrea Beaty	Fiction Book

## Sessions 10&11





## Make Team Poster

	<a href="#">Recap of the 2019 FIRST LEGO League World Festival in Houston</a>	Length 1:10. *Have your students watch for example team posters in the video.
	<a href="#">Journey of your Online Order</a>	From Amazon India – Length 4:14
	<b>The Squirrels who Squabbled</b> by Rachel Bright	Fiction Book
	<b>A Little SPOT of Teamwork: A Story About Collaboration and Leadership</b> by Diane Alber	Fiction Book



# Session 12

# Prepare for Event

	Schooled by Kids: <a href="#">Presentation Skills, Part 1</a> <a href="#">Presentation Skills, Part 2</a>	From Green Ivy Schools. Part 1 Length 1:44 / Part 2 Length 1:31
	<a href="#">How to Prepare for your Festival</a>	From the IET in the United Kingdom
	<a href="#">Explore Certificates</a>	Printable certificates to provide to the children
	Going Places – by Paul and Peter Reynolds	Fiction Book

## Additional Resources

### General Career Resources

- Visit the [Learning Lab](#) and search careers from A-Z (PBS LearningMedia)
- [Amazon Future Engineer Class Chat](#)
- [Career One Stop – Pathways to Career Success](#) (US Dept. of Labor)
- [O\\*NET OnLine](#) (US Dept. of Labor)
- [O\\*NET Interest Profiler](#) (US Dept. of Labor)
- [Career Exploration Lesson Plans](#) (Nebraska Department of Education)

### Transportation Career Resources

- [Transportation & Logistics Careers](#) (Amazon)
- [New Robots, New Jobs](#) (Amazon)
- [Career Videos for Transportation, Distribution and Logistics](#) (US Dept. of Labor)
- [Transportation, Distribution, and Logistics Careers](#) (Minnesota State University)
- [Transportation Career Lesson Plans](#) (Northeast Transportation Workforce Center)

### Extension Activity Resources

- [FIRST@Home](#)- These free activities supplement the *FIRST* season materials with opportunities for STEM skill development using LEGO and other readily available materials. They can be completed at home by students and their families or in the classroom.
- [Mid-America Transportation Center Teacher Resource Center- Lesson Plans](#)
- [Transportation Activities and Videos](#) (PBS Design Squad)
- [Moving Cargo- Transportation Educator Guide](#) (NASA)
- [Exploration: Then and Now - Transportation Lesson](#) (NASA)
- [Let's Get There Fast](#) (Teach Engineering)

- [Port: A Transportation System Classroom Resources](#)
- [Shipping Containers Lesson](#) (UK Geographical Association)
- [Transport and Logistics Teacher Resources](#) (UK Geographical Association)
- [The Sustainable Transportation Lesson Package](#) (Learning for Sustainable Future)
- [NASA: Moving Cargo- Transportation Educator Guide](#)
- [Amazon Fulfillment Center Virtual Tour](#)
- [Behind the Scenes Tour of Robotics at an Amazon Fulfillment Center](#)
- [Amazon: Driving to Combat Climate Change](#)
- [Amazon Scout Delivery Robot](#)
- [Amazon Drone Delivery](#)
- [PBS Learning Media for students](#) (search “transportation”)