

## FIRST® LEGO® League Explore Remote Professional Development

### Remote Course Description

The FIRST® LEGO® League Explore professional development course is designed for new and experienced teachers, facilitators, coaches, and mentors to enhance their overall FIRST® program knowledge, giving participants a strong understanding of how to implement all aspects of the program and how to achieve STEM learning objectives. In Explore, teams of students in grades 2-4 focus on the fundamentals of engineering as they investigate real-world problems, learn to design and code, and create innovative solutions made with LEGO® bricks and powered by LEGO® Education SPIKE™ Essential set. Participants in this course will walk in the footsteps of the students as they engage in the Explore program, gaining technical, engineering, and coding skills through hands-on experience. The course is customized to meet the unique needs of participants in a remote setting while modeling how to inspire their students to become confident and creative innovators and collaborate.

### Remote Course Requirements

- Computer with Internet Access (Required second screen or device to allow programming and video communication at the same time)
- FIRST LEGO League Explore Set
- *Team Meeting Guide* – can be accessed [digitally](#)
- *Engineering Notebook* – can be accessed [digitally](#)
- Unbuilt LEGO Education SPIKE Essential Set
- LEGO® Education software downloaded prior to the first session.
  - <https://education.lego.com/en-us/downloads> - Be sure to download, install, and restart your computer.
  - **OR** web-based SPIKE Essential app: <https://spike.legoeducation.com> (use a Chrome browser)

\*You can use a current or prior season Explore Set, Team Meeting Guide, and Engineering Notebooks.

\*\*Explore materials are included with a Class Pack or Individual Team Registration and can be purchased through the [FIRST Dashboard](#), as well as the LEGO SPIKE Essential.

### Remote Course Objectives

By the end of this course, you will:

- Participate in the FIRST experience from a student's point of view.
- Identify the essential components of the FIRST LEGO League Explore program and be familiar with how to use the Explore kit, LEGO Education SPIKE Essential materials, and software.
- Build a robot and learn introductory icon-based programming concepts using the LEGO Education SPIKE App.
- Be able to foster computational thinking, collaboration, coding, and problem-solving skills in students.
- Know how to engage students in explore, build, and challenge activities.
- Collaborate with other participants and share best practices while building a team model.
- Create unique solutions made with LEGO bricks and powered by a LEGO Education robot.
- Create and present a team project.
- Implement Diversity and Inclusion practices.
- Utilize, model, and reinforce the FIRST Core Values!