



EXPLORE



FIRST® LEGO® League Explore Ignites Early STEM Engagement

Hands-On Classroom and After-School Programs

In *FIRST*® LEGO® League Explore, teams of students ages 6-10 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.

Learn more about *FIRST* LEGO League by visiting www.firstlegoleague.org.

FIRST LEGO League Explore Class Pack

Explore can be implemented through *FIRST* Class Packs, which includes curriculum for educators and facilitators to guide their students through 12 sessions designed to introduce the fundamentals of engineering through real-world problem solving.

Explore Implementation Study

From 2019-2022, *FIRST* worked with the Lawrence Hall of Science, UC Berkeley¹ to evaluate the *FIRST* LEGO League Explore and Challenge programs. Goals of the evaluation included understanding impact the programs had on students and teachers. This evaluation was funded by the LEGO Foundation.

KEY FINDINGS

Teachers and facilitators noted positive student outcomes in core *FIRST* program areas, including:

Students have gains in STEM Outcomes



Students have gains in teamwork and problem solving



Students reported increased interest in robotics and programming



KEY FINDINGS CONTINUED

At the end of the program, students have gains in creativity:



IMAGINATIVE THINKING

100%

COMING UP WITH UNUSUAL, UNIQUE, OR CLEVER IDEAS

100%

At the end of the program, teachers feel more prepared to:

TEACH STUDENTS HOW TO PROGRAM/CODE

89%

CONNECT ACTIVITIES WITH STEM CONTENT

84%

LEAD YOUTH THROUGH THE CHALLENGE COMPONENTS

86%



"...Class Pack provides [the idea] that robotics is not just for most students, but for all students. So every kid can feel that they are worthy to work with [this] equipment."

— Teacher

At the end of the program, teachers feel more confident in:

TEACHING STEM

88%

USING PROJECT-BASED LEARNING TO TEACH STEM

87%

MAKING CONNECTIONS BETWEEN STEM CONCEPTS AND REAL-WORLD PROBLEMS

91%

TEACHING ABOUT PROGRAMMING/CODING

91%



"I learned that you can be an inventor, scientist, you can build things, you can listen to everyone's ideas. Just be you." — Explore Youth

Learn more at firstinspires.org/impact

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