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 Berkeley[1] 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.

1 Collins, M., Sanchez, A., Yun, S., Grindstaff, K. (2022). Evaluation of the *FIRST* LEGO League Explore and *FIRST* LEGO League Challenge Class Pack Model. Berkeley, CA: The Research Group, Lawrence Hall of Science.
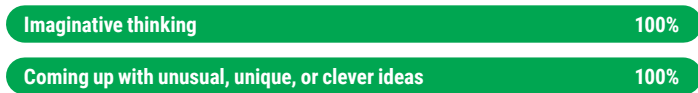

Key Findings

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

Students have gains in creativity

Imaginative thinking	100%
Coming up with unusual, unique, or clever ideas	100%

Students have gains in teamwork and problem solving

Ability to work with others	100%
Ability to make a decision as a team	97%
Ability to accept feedback or criticism	97%
Ability to adapt, improve, and modify ideas	97%

Students have gains in STEM Outcomes

Interest in STEM	100%
Confidence in STEM	100%
Programming and coding skills	97%
Understanding STEM content	97%

Students reported increased interest in robotics and programming

Robotics	78%
Programming	71%

"You just see the kids grow. They grow socially, emotionally. They grow academically. This is a full program. I…do FIRST because it's a superior experience." — *Teacher*

Learn more at **firstinspires.org/impact**