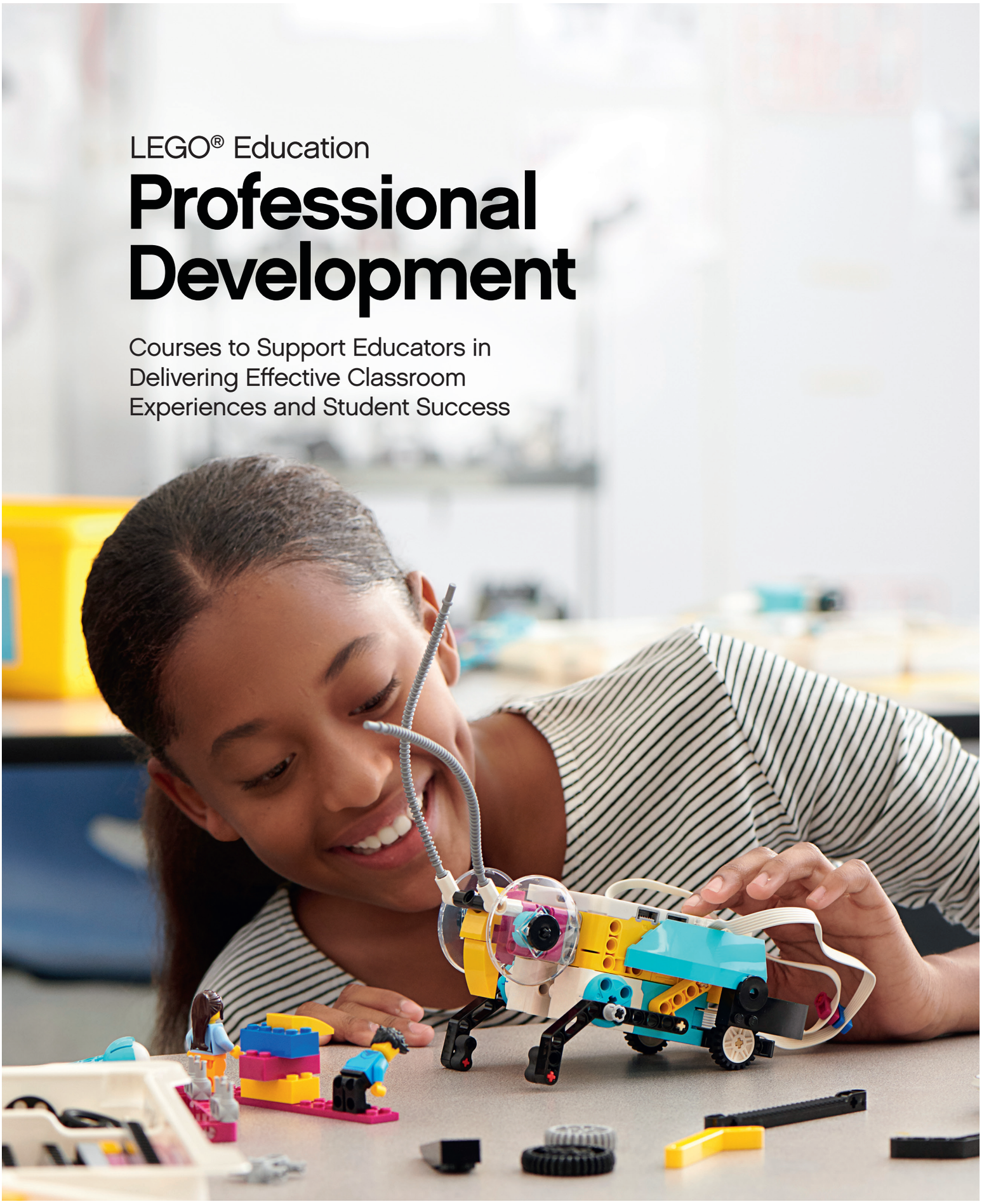
LEGO® Education

Professional Development

Courses to Support Educators in Delivering Effective Classroom Experiences and Student Success



Build Educators' Confidence and Competence to Support Hands-On Learning

LEGO® Education Professional Development supports educators in acquiring the competencies necessary to foster student success and engagement. This range of collaborative courses offers educators the opportunity to learn, practice, and master new skills that will help them deliver effective STEAM experiences using LEGO Education solutions.

All Professional Development courses are facilitated by certified LEGO Education Academy Teacher Trainers. Every course teaches effective strategies for using LEGO Education solutions, including product knowledge, lesson planning, and tips for efficient classroom management.

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The LEGO® Education Professional Development courses offer:

- An introduction to the LEGO® Education approach to learning through play
- Hands-on experiences to facilitate core product knowledge and skills
- Opportunities to plan, practice, and recieve feedback on lessons linked to core standards
- Strategies for delivering high-impact, inquiry-based STEAM instruction
- A fun, action-packed, full-day program facilitated by certified LEGO Education Teacher Trainers

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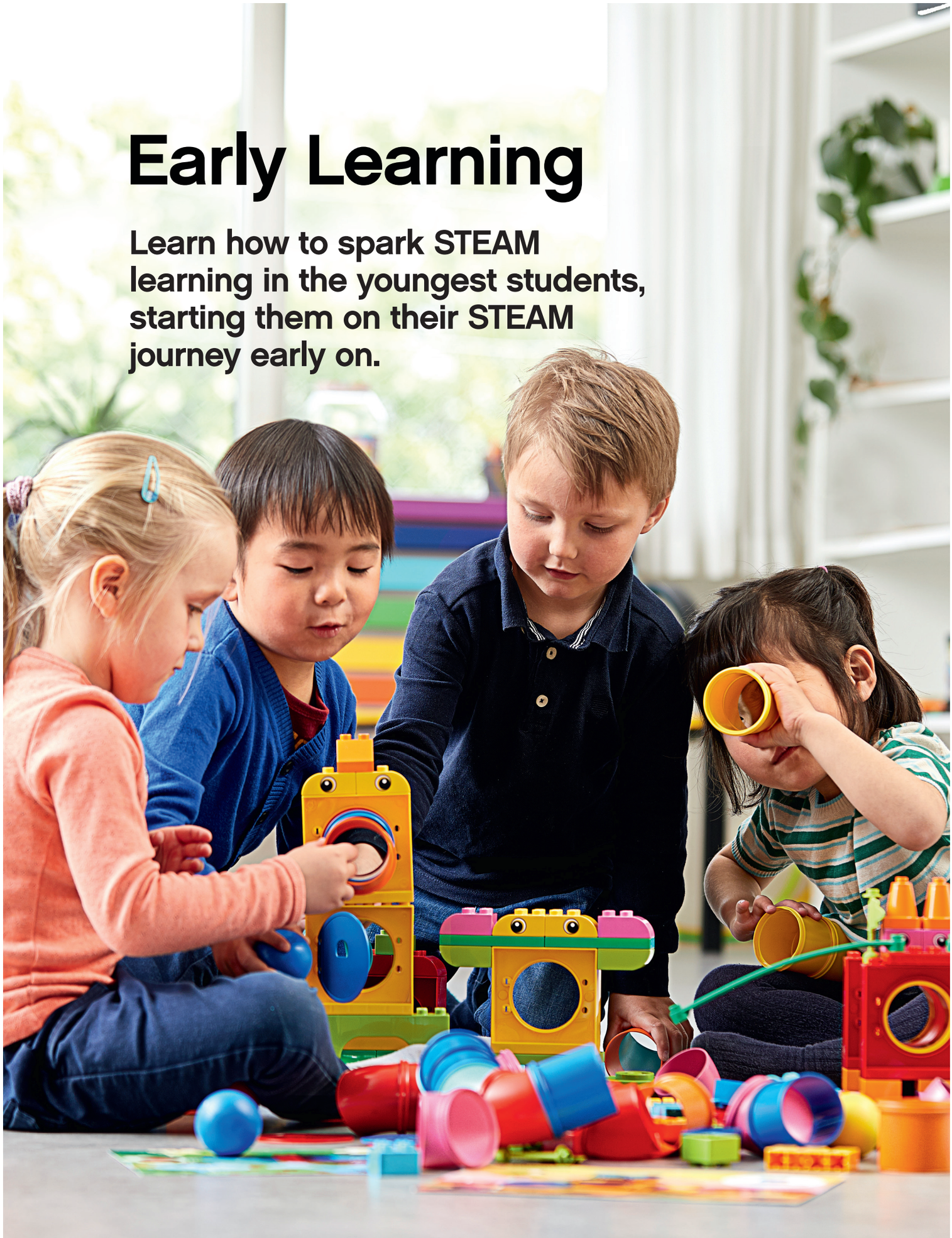
Early Learning

Learn how to spark STEAM learning in the youngest students, starting them on their STEAM journey early on.



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Learning through Play with Build Me "Emotions"

- Understand how to implement and use “Build Me Emotions" in daily teaching.
- Experience and practice how to help children develop their social and emotional skills using (emotion) bricks.
- Plan lessons using Build Me “Emotions.”

Learning through Play with Coding Express

- Understand how to use Coding Express in daily teaching.
- Experience and practice ways of helping children explore early coding concepts, such as sequencing, looping, and conditional coding.
- Plan lessons using Coding Express.

Learning through Play with STEAM Park

- Understand how to use STEAM Park in daily teaching.
- Experience and practice ways of helping children develop early science, technology, engineering, art, and math (STEAM) skills.
- Plan lessons using STEAM Park.
- Learn how to guide early learners in the scientific approach.

Learning through Play with StoryTales

- Understand how to use “StoryTales” in daily teaching.
- Discover techniques for developing children’s early language and literacy skills, such as expressing thoughts,ideas and opinions, having conversations with others, and understanding narrative structure and elements.
- Plan lessons using StoryTales.

Learning through Play with My XL World

- Understand how to use My XL World in your teaching.
- Learn how to fully utilize the My XL World Set to build children’s social development skills in a community context.
- Plan lessons using My XL World.

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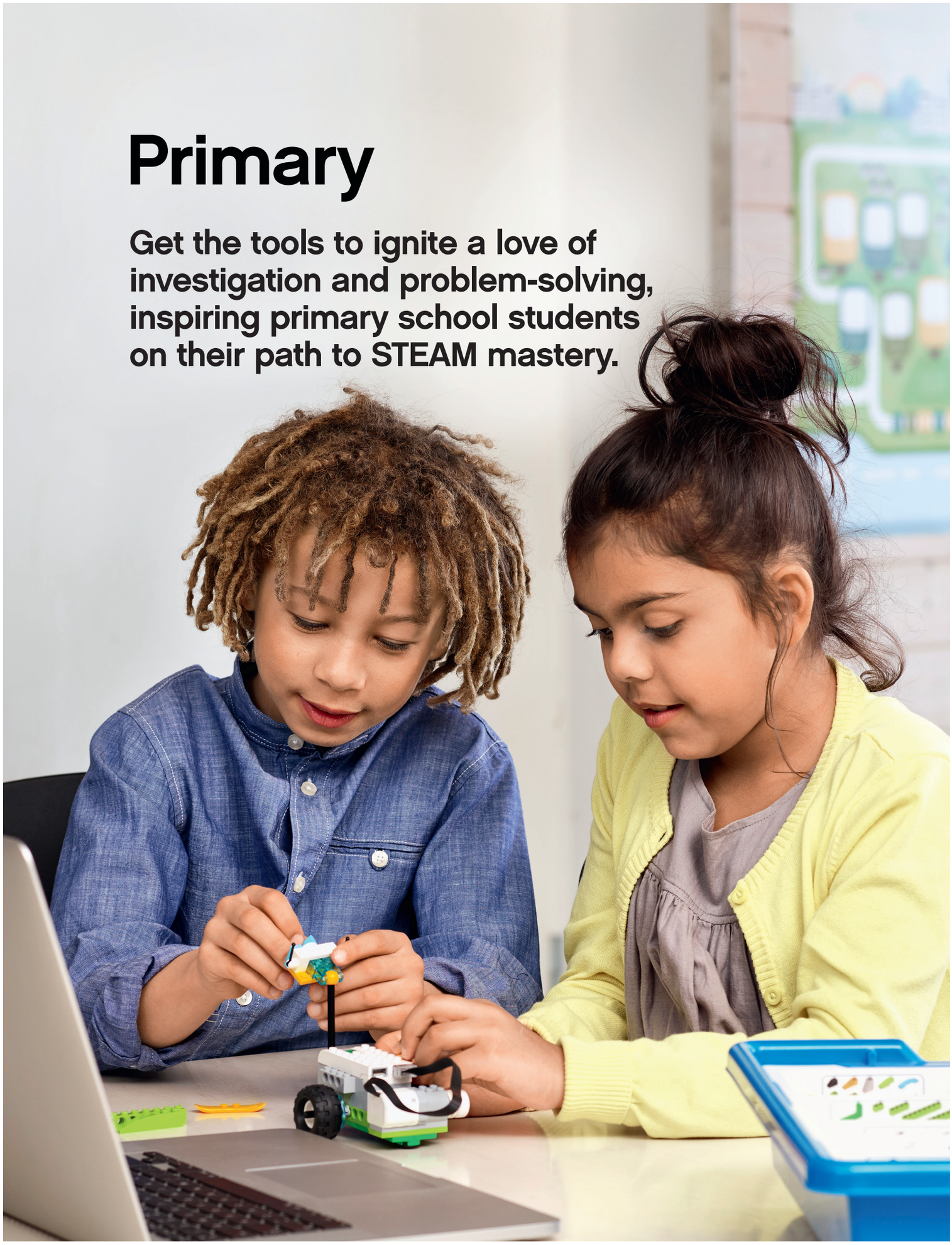
Primary

Get the tools to ignite a love of investigation and problem-solving, inspiring primary school students on their path to STEAM mastery.



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LEGO® Education WeDo 2.0

WeDo 2.0 – Introduction

- Learn to introduce WeDo 2.0 with an active, hands-on approach.
- Explore innovative science projects to implement on “Day One.”
- Become proficient in using both the physical and digital components of WeDo 2.0.
- Plan lessons that meet core standards.
- Experience how coding and building with LEGO® bricks can be a great motivator for students.

WeDo 2.0: Next Steps – Computational Thinking Focus

- Build and practice techniques for teaching computational thinking skills.
- Learn to apply computational thinking as a set of problem-solving skills that integrate across disciplines.
- Plan lessons that focus on computational thinking practices, and meet core standards.

Prerequisite : WeDo 2.0 – Introduction Course

LEGO Education Machines and Mechanisms

Early Simple Machines – Introduction

- Find out how to use Early Simple Machines with your students.
- Discover ways of engaging your students using inquiry-based lessons.
- Use this material to practice planning lessons that meet core standards.

Simple Machines – Introduction

- Learn how to use Simple Machines with your students.
- Discover strategies for teaching simple engineering concepts. such as gears, pulleys, levers, wheels and axles.
- Use this material to practice planning lessons that meet core standards.

Secondary

Gain the confidence and skills to accelerate STEAM learning, expanding students creative problem-solving skills.

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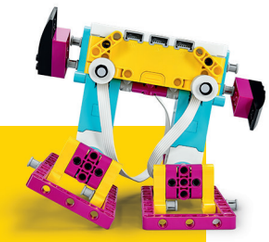
LEGO® Education SPIKE™ Prime



SPIKE Prime – Introduction

- Get a foundational introduction to use SPIKE Prime from “Day One.”
- Learn how to combine the engineering design process with algorithmic thinking and coding, and use it in your STEAM teaching.
- Practice ways of using LEGO® Education’s lesson plans to engage your students in critical thinking and complex problem-solving .
- Know how to plan and differentiate lessons to help students of all levels and abilities meet core standards.

SPIKE Prime – Competition Ready

- Get a foundational introduction to use SPIKE Prime from “Day One.”
- Get equipped as a coach to mentor students through *FIRST*® LEGO League or another competition program.
- Learn to prepare and manage teams, enabling them to compete successfully while having fun.
- Create synergies between daily in-class STEM-related teaching and your competition program.

SPIKE Prime - Next Steps – Computer Science

- Learn skills and strategies for teaching computer science and coding.
- Find out how to apply SPIKE Prime in your daily computer science teaching.
- Practice planning lessons that meet core standards in computer science.
- Discover techniques for developing your students’ computational thinking skills and ability to understand data representation and data manipulation.

Prerequisite: SPIKE Prime – Introduction or SPIKE Prime-Competition Ready

LEGO Education Machines and Mechanisms

Simple & Powered Machines – Introduction

- Acquire practical strategies for using Simple and Powered Machines in the context of real-world challenges.
- Learn how to apply principles related to complex and motorized machines and mechanisms principles to solve engineering challenges.
- Practice and plan lessons that meet core standards.

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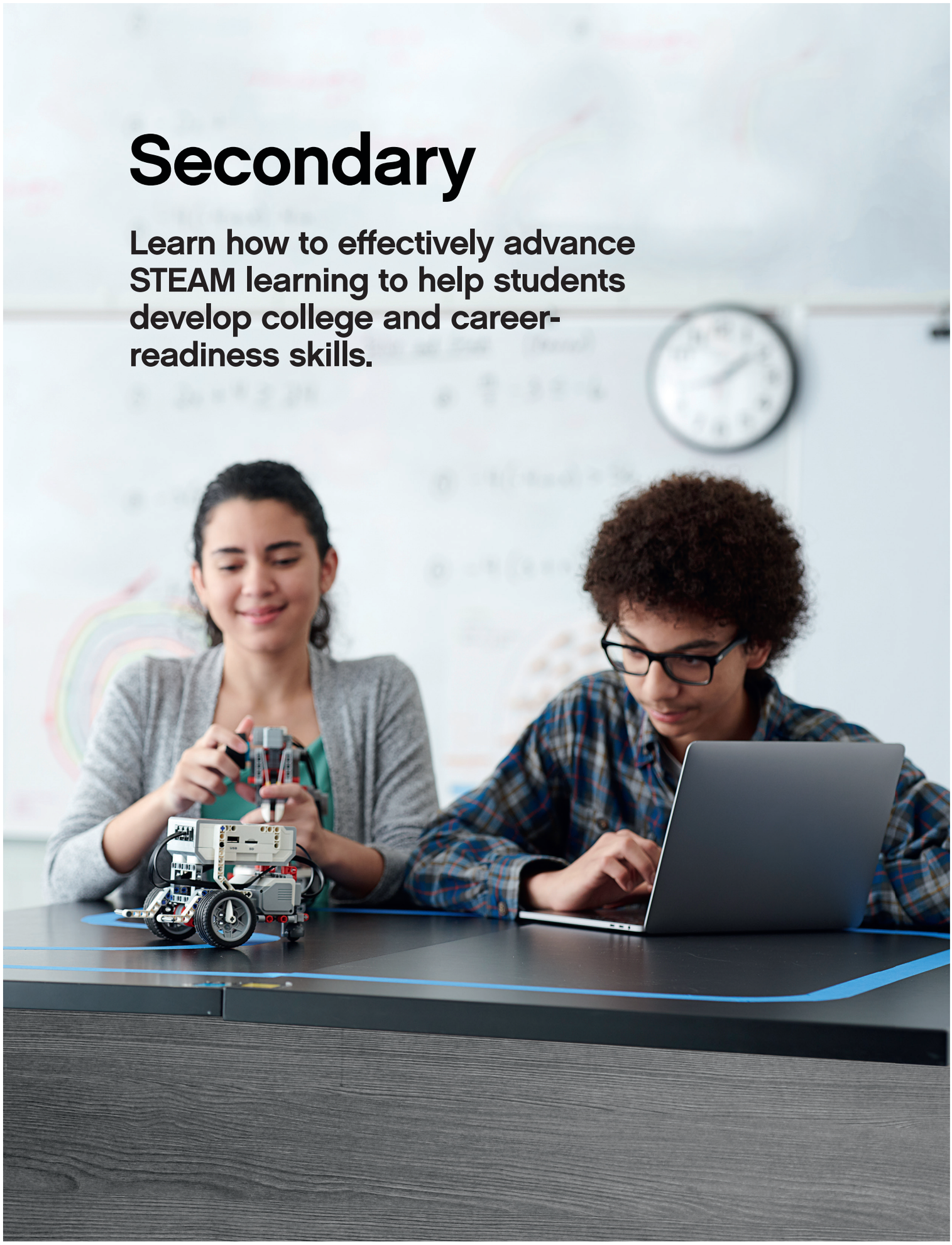
Secondary

Learn how to effectively advance STEAM learning to help students develop college and career-readiness skills.



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EV3 – Introduction

- Get a foundational introduction to LME EV3, which will help develop your students' innovation and inquiry skills.
- Practice using hands-on lessons that will help your students interact with advanced tools and devices.
- Practice defining processes for authentic design engineering and coding.
- Learn strategies to help students connect abstract concepts to tangible data while performing hands-on experiments.
- Use LME EV3 to plan lessons that meet core standards.

This course uses the Scratch-based CLASSROOM APP and can be adjusted to accommodate teachers and team coaches with any level of previous experience with EV3, from beginners through advanced.

EV3 – Program with Python

- Acquire skills and knowledge to support your students in solving real-world programming and robotics challenges.
- Learn to apply Python programming using EV3.
- Use LME EV3 and Python to practice planning lessons that meet core standards.

Prior text-based programming experience is recommended, however, the course can be adjusted to accommodate users with or without robotics or EV3 experience, or with or without Python or text-based programming experience.