LEGO® Education Professional Development & Training Programs 2016-2017 Teach successfully with our hands-on solutions

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Get started with LEGO® Education Professional Development & Training Courses

LEGO® Education Academy offers Face-to-Face in your lessons and unit plans. We also hope to professional development and training courses. In inspire you to create your own lesson plans after you each course, certified trainers aim to ensure you get complete the course. the most out of your purchase by providing This catalog covers a range of courses aimed attendees with the learning philosophy and product at elementary and middle schools. If you have any knowledge necessary to create a successful questions or would like to find out more, please get in classroom implementation of the chosen LEGO touch. We look forward to meeting you. Education product(s).

Our courses will give you the tools and confidence needed to deliver engaging and lifelong learning. Each LEGO Education course focuses on the academic content and materials of each product, and then explains how the content can be included



STEM and Robotics

"The training was great and very useful. The trainer was very professional and engaging. Looking forward to use WeDo in the future."

Filipa T. Carneiro, Elementary Teacher, 2016

Literacy with StoryStarter

An engaging, hands-on literacy tool for elementary classrooms. Spark students' imaginations and help them grow in confidence, as they start to bring their stories to life.



Subject	Literacy, 2 nd -5 th grade
Teachers	General elementary or Language Arts teachers
Duration	7 hours including breaks
Content of the course	Led by a certified LEGO [®] Education Academy trainer, this program will help you integrate StoryStarter into your daily teaching and will allow you to choose from the 24 hands-on classroom activities from the StoryStarter Core Curriculum, teaching you how to familiarize yourself with the activities and product. By the end of the program, we hope you'll be inspired to use StoryStarter for anything from 5-10 minute short student build exercises to longer term project work, for groups and individuals, all as part of an engaging classroom experience.
Learning outcome	 Help your students to structure their stories, develop collaborative skills, and write and present their work with confidence, via an introduction to StoryStarter and inspiration as to how it can spark your students' imaginations.
	 Become familiar with the brick set, the curriculum and the StoryVisualizer software through hands-on practical activities. Develop best practices on classroom management with help from our certified trainers.
	 Reach clear learning objectives, via targeted activities and lesson plans.
	 Link the program content to your local and national curriculum plans, by discussing StoryStarter in relation to your daily teaching.
	Gain a strong understanding of LEGO Education learning methodology.

Reflection and Expression with BuildToExpress

Encourage students to engage with the wider world around them, reflect on their experiences and express their thoughts and feelings in a positive and supportive environment.

Subject	Cross Curric
Teachers	All teachers
Duration	7 hours inclu
Content of the course	Led by a cer will give you in your daily introduce yo understandin teaching situ
Learning outcome	 Discover ho process and to BuildToEx
	 Understand as equals ir
	 Become far cards, throu
	 Practice the self-express
	 Link the property plans, by displaced
	• Gain a stror
	1



cular, 1st grade and up

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\$								

uding breaks

rtified LEGO® Education Academy trainer, this program a strong understanding of how to use BuildToExpress teaching, across a range of different subjects. We'll but to the predefined lesson cards to give you a good ng of how to manage BuildToExpress in different uations and how to develop your own lessons over time.

ow to involve every student, take an active role in the learning d become a true hands-on facilitator, via an introduction kpress.

how BuildToExpress enables students to communicate an inclusive and highly-motivated environment.

niliar with the brick set, the curriculum and the challenges igh hands-on practical activities.

e use of symbols and metaphors for reflection and sion.

gram content to your local and national curriculum scussing BuildToExpress in relation to your daily teaching.

ng understanding of LEGO Education learning methodology.



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Mathematics **Problem Solving** with MoreToMath

Using our hands-on educational tool, students will feel encouraged and motivated to think, write and speak freely about mathematics.



Subject Mathematics, 1st-2nd grade Teachers General elementary, mathematics, or mathematics specialist teacher Duration 7 hours including breaks Content of the course Led by a certified LEGO® Education Academy trainer, this program will give you a strong understanding of how to use MoreToMath, including how this problem solving resource can complement your daily teaching. We'll introduce you to the program's content and practical usage using the MoreToMath Curriculum Pack, including the teacher guide, 48 lessons, integrated assessment and differentiation tasks. As a result, we hope you'll feel equipped to engage students by making mathematics a tangible, relevant part of everyday life.
Teachers General elementary, mathematics, or mathematics specialist teacher Duration 7 hours including breaks Content of the course Led by a certified LEGO® Education Academy trainer, this program will give you a strong understanding of how to use MoreToMath, including how this problem solving resource can complement your daily teaching. We'll introduce you to the program's content and practical usage using the MoreToMath Curriculum Pack, including the teacher guide, 48 lessons, integrated assessment and differentiation tasks. As a result, we hope you'll feel equipped to engage students by making mathematics a tangible, relevant part of everyday life.
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Learning outcome • Gain an understanding of MoreToMath and how it helps students to succeed, including problem solving and making sense of problems, reasoning, perseverance, precision, modeling and representation. • Become familiar with the brick set, the curriculum and the MathBuilder interactive white board software, through practical examples.
 Explore best practices on classroom management. Understand how MoreToMath can help you reach clear learning objectives.
Discuss the use of MoreToMath in your daily teaching, including how to link it to your local and national curriculum plans.
Gain a strong understanding of LEGO Education learning methodolog

Real Life Science with WeDo 2.0

WeDo 2.0 builds students' confidence, encouraging them to ask questions, define problems and design their own solutions. Based around real-world science projects including engineering, technology, and coding, students can witness science as it comes to life.

Subject	Science, er
Teachers	General ele
Duration	7 hours inc
Content of the course	Led by a ce exciting ha
	how the pro life in your WeDo 2.0 c program, yo inspiring, e
Learning outcome	 Increase year in your classing
	• Explore a r
	• Learn to w
	Develop et including la
	• Understan



ngineering, coding, 2nd-4th grade

ementary, science, engineering, or computing teachers

luding breaks

ertified LEGO® Education Academy trainer and using inds-on activities and program software, we'll discover ojects in our three subject areas can bring science to classroom. We also cover lesson planning, ensuring can fit into your everyday curriculum. By the end of the ou will be fully prepared to make elementary science an ngaging experience for all the students in your class.

our understanding of WeDo 2.0 and how to use it effectively ssroom.

range of different subjects and project types.

vork with the software and gain hands-on experience.

effective techniques to apply WeDo 2.0 in the classroom, lesson planning and classroom management.

nd how WeDo 2.0 works in parallel with the Next Generation Science Standards.

• See how coding and construction with LEGO bricks can be great motivators in understanding science topics.

• Gain a strong understanding of LEGO Education learning methodology.

Early STEM Learning with Early **Simple Machines**

Help students to behave as young scientists by providing them with tools and tasks that promote scientific inquiry. Together you'll investigate simple machines, for an early hands-on insight into science and engineering.



Subject	Science, Kindergarten - 2 nd grade
Teachers	General elementary or science teachers
Duration	7 hours including breaks
Content of the course	Led by a certified LEGO [®] Education Academy trainer, this program will help you understand how LEGO Education solutions can facilitate STEM learning using engaging, hands-on practices. As we complete projects from this course, we'll demonstrate how you can achieve key learning objectives from Next Generation Science Standards.
Learning outcome	 Help your students to behave like young scientists and engineers with an introduction to Early Simple Machines.
A CONTRACTOR OF	 Gain a strong understanding of LEGO Education learning methodology. Understand how to get the most from Early Simple Machines in your classroom. Spend time practicing reaching learning objectives.
	Increase the efficiency of your lesson planning for STEM learning.

Elementary **STEM with Simple Machines**

Engage students in scientific inquiry and creative engineering design, using STEM learning techniques for basic mechanisms, structures and power sources in the real world.

Subject	STEM, 1 st -3 rd grade
Teachers	General elementary or science teachers
Duration	7 hours including breaks
Content of the course	Led by a certified LEGO [®] Education Academy trainer, attendees will understand how to achieve STEM learning objectives using curriculum materials from Simple Machines and the LEGO Education learning methodology.
Learning outcome	 Learn how to encourage your students to investigate and understand the operation of simple and compound machines found in everyday life, enabling them to work as young scientists and engineers. Increase your understanding of LEGO Education learning methodology. Become familiar with best practices in facilitating learning by using Simple Machines in a classroom setting. Gain hands-on practice to help you reach your learning objectives with Simple Machines. Increase the efficiency of your lesson planning for STEM learning.



mentary or science teachers

STEM with Simple & Powered Machines - Introduction

Enable your students to link textbook-based learning in science, technology, engineering and mathematics with real-world phenomena, using a range of challenging hands-on tools.

Subject	STEM, Science, 4 th -5 th grade
Teachers	Middle school science teachers
Duration	7 hours including breaks
Content of the course	Led by a certified LEGO [®] Education Academy trainer, we'll equip you with a strong understanding of how to use LEGO Education methodology to facilitate STEM learning, using our Simple & Powered Machines program content and inspiring hands-on practices. Plus, discover how you can achieve key learning objectives, using the curriculum materials of Simple & Powered Machines.
Learning outcome	 Learn how to help students investigate their world, from basic mechanical principles to advanced motor-powered machines, gaining relevant insights in science, engineering and technology.
6700	 Increase your understanding of LEGO Education learning methodology.
	 Explore and learn from best practice examples of Simple & Powered Machines in use.
	 Practice achieving your learning objectives through hand-on activities.
	 Learn how to plan for STEM learning.

STEM with Simple & Powered Machines - Advanced

Simple & Powered Machines includes a range of challenging hands-on experiences that link book learning in science, technology, engineering and mathematics to real-world phenomena.

Subject	STEM, Science
Teachers	Middle school
Duration	7 hours includi
Content of the course	Led by a certifi program will sh methodology to Powered Mach learning object
Learning outcome	 A presentation curriculum pa continue expl principles to a gaining key ir Increase your methodology. Understand h in a classroor
	 Gain hands-or & Powered Ma Develop your I Gain a strong
	s ·





, 6th-8th grade

- science teachers
- ing breaks

ied LEGO[®] Education Academy trainer, this hands-on how you how to use LEGO Education learning to facilitate STEM learning, using the Simple & nines program. In addition, we'll help you achieve key tives using the curriculum materials.

n of the Advancing with Simple & Powered Machines ack and understand how it enables students to loring a range of key subjects (from basic mechanical advanced motor-powered machines), while also nsights in science, engineering and technology.

- understanding of LEGO Education learning
- now to get the most from Simple & Powered Machines m setting.
- on practice in reaching learning objectives with Simple achines.
- lesson planning for STEM learning.
- understanding of LEGO Education learning methodology.

STEM with Machines & Mechanisms – Renewable Energy

Help your students discover renewable energy, while meeting curriculum goals in science, technology and engineering.

Subject and Teachers	Middle school science or STEM teachers	
Duration	7 hours including breaks	
Content of the course	Led by a certified LEGO [®] Education Academy trainer, this program will cover the Renewable Energy curriculum pack and the ways it enables your class to explore topics such as energy supply, transfer, accumulation, conversion and consumption.	
Learning outcome	• Gain a strong understanding of LEGO Education learning	
Prerequisite: Either the Introduction or Advanced STEM	 methodology and explore best practices in using Renewable Energy in a classroom setting. Get hands-on experience of reaching learning objectives with 	

with Simple & Powered Machines course, or equivalent experience.

Simple & Powered Machines in conjunction with Renewable Energy and explore how this might influence your lesson planning.

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wered Machines Introduction

nning a Simple & Powered Machines course?

STEM with Machines & Mechanisms Pneumatics

Encourages logical and creative thinking, motivating students in scientific inquiry and engineering design.

Subject and Teachers	Middle school science or STEM teachers	
	7 hours including brooks	
שומנוטוו	7 Hours including breaks	
Content of the course	Led by a certified LEGO Education Academy trainer, this program will guide you through the Pneumatics curriculum that enables students to develop their creative thinking and investigation in real- world power systems and components.	
Learning outcome	• Learn more about how to get started with Pneumatics from Machines & Mechanisms and gain a clear understanding of how to use the product.	
Prerequisite: Either the Introduction or Advanced STEM with Simple & Powered Machines	 Pick up classroom tips and tricks and develop your lesson planning technique for teaching STEM. 	
course, or equivalent experience.	 Gain hands-on practice in reaching your learning objectives. 	

LEGO[®] MINDSTORMS[®] **Education EV3** Introduction

Grow students' critical thinking and creativity in computer science and STEM. The greatest challenge you'll face is persuading them to leave the classroom afterwards!

Subject	STEM, Com
Teachers	Middle scho
Duration	7 hours incl
Content of the course	Led by a ce
	will provide STEM learn inspiring ha you'll learn interactive v
	The course Education E robot, begir
Learning outcome	• Develop yo Education
	 Increase a
	• Gain hands







puting, Coding and Computer Science, 6th-9th grade

ool STEM, computing, or robotics teachers

luding breaks

ertified LEGO® Education Academy trainer, this program you with a thorough understanding of how to facilitate ing with LEGO MINDSTORMS® Education EV3. Using ands-on practice and classroom management tips, how to achieve learning objectives in an interesting, way.

will introduce the basics of the LEGO MINDSTORMS EV3 hardware and software. You will build your first n programming, and solve problems using STEM skills.

our understanding of the LEGO MINDSTORMS EV3 hardware and software.

awareness of the numerous curriculum opportunities.

s-on practice in reaching your learning objectives and pick up some useful classroom management tips.

• Understand more about, and start using, the content editor.

· Gain a strong understanding of LEGO Education learning methodology.

LEGO® MINDSTORMS® Education EV3 – **Advanced**

Take students' critical thinking and creativity in computer science and STEM to the next level with this comprehensive and exciting course.



Subject	STEM, Computing, Coding and Computer Science, 6th-9th grade
Teachers	Middle school STEM, computing, or robotics teachers
Duration	7 hours including breaks
Content of the course	Led by a certified LEGO [®] Education Academy trainer, this hands-on program takes the learnings from the EV3 Introduction course to the next level.
	The course allows you to explore the different curriculum options that EV3 provides. Examples of focus areas in an intermediate day include Coding Activities, Design Engineering Projects, Science curriculum, and Space Challenge curriculum. Specific subjects will be covered (e.g. science, technology, engineering, mathematics and computing), and focus on specific topics (e.g. data-logging, data collection, algorithm).
	Prerequisite: LEGO MINDSTORMS Education EV3 Introduction course, or equivalent experience with EV3
Learning outcome	 Increase your understanding of the LEGO MINDSTORMS Education EV3 hardware, by spending hands-on time with the sensors and simple data wires, software and data operations.
	 Get ideas on how to run and facilitate hands-on sessions.
	 Understand the curriculum and its opportunities, plus receive classroom management tips.
	 Increase your knowledge on how to reach learning objectives.
	Gain a strong understanding of LEGO Education learning methodology.
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LEGO® Education Academy Sample Agenda

Below is a sample agenda of what your day will look like in a 7-hour LEGO® MINDSTORMS® Education EV3 Introduction day. All days will include an introduction to LEGO Education and the 4C framework, along with hands-on product training and implementation guidance.

Agenda:

- Welcome
- · Introduction and warm-up activity
- Meet EV3 software and hardware
- Introduction to EV3 software
- Build your robot
- Three hands-on activities
- · 4C: The framework
- · Questions and answers

Introduction to **LEGO Education** eLearning

With a strong focus on flexibility, our new eLearning solutions offer web-based training designed to hel you enhance the experience and effectiveness of using LEGO Education in your classrooms.

this includes? • Getting t		What this includes?														
• Guidanc																
• Classroo																
• Software																
Inspiration																
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know the product.

on how to use the different product components.

m management.

introduction and usage.

for planning your first lessons.

ith StoryStarter

with WeDo 2.0

d Robotics with LEGO MINDSTORMS Education EV3

LEGO® Education - Middle Schoo

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Ready to transform your teaching approach?



LEGO[®] Education WeDo 2.0 - 2016



LEGO[®] Education WeDo 2.0 - 2016



LEGO® MINDSTORMS® Education EV3 - 2014 StoryStarter - 2014



LEGO[®] Education **BuildtoExpress** Getting Started Set - 2013



LEGO® MINDSTORMS® Education EV3 - 2014 StoryStarter - 2014



WeDo - 2010



StoryStarter - 2014



LEGO® MINDSTORMS® Education EV3 - 2013





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