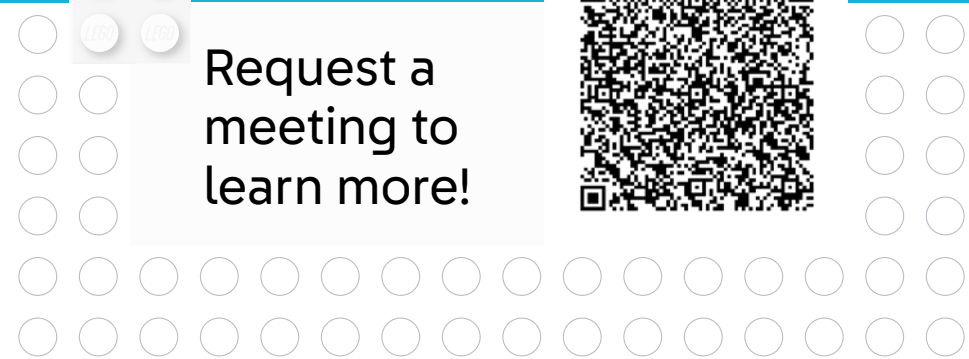


2025 Solution Guide



Request a
meeting to
learn more!





LEGO Education SPIKE 2 - 1.1.0

View Window Help

This is uphill

Variables

Make a Variable

Make a List

Line Graph

More Motors

Lesson

Variables

04 / 06

007 / 0:14

Let's go uphill!

I can see my new graph.

I can answer these questions:

How can you describe what's happening to the motor's power as the bike goes uphill?

Looking at the graph, where can you see that your bike is gaining potential energy?

Stop and exit program

The future is in their hands

Thank you for being here.

I'm Alexander Mitchell, Head of US, LEGO® Education. Growing up in a family of educators fueled my passion for breaking down barriers in education. That's why I'm beyond excited to be part of this future-focused team, working to make quality, hands-on learning accessible to all students.

At LEGO Education, we are dedicated to creating learning experiences that empower every classroom and every student. To deepen our understanding of what truly engages learners, we recently surveyed over 6,000 administrators, teachers, parents, and students worldwide, which resulted in our State of Classroom Engagement Report.

The findings confirmed what many educators have been convinced of for a long time — engagement is key to stronger learning environments and better outcomes. The report also uncovered surprising insights on how best to increase engagement, particularly in science education. Only 55% of students regularly receive hands-on experiences, but those who do are 2x more likely to engage in science class and nearly 1.5x more confident learning science. These insights and more reinforce our ambition — to help educators create meaningful, hands-on learning experiences that inspire curiosity and deepen understanding.

That's why this year, we're thrilled to introduce LEGO® Education Science, a flexible K-8 science solution designed to make science teaching easier while placing learning directly into students' hands. This new offering, alongside our existing STEAM solutions, provides carefully-crafted materials, lesson plans, and professional development — all tested to help teachers and students thrive.

We invite you to join us in reimagining what's possible in education. Together, we can spark curiosity, deepen engagement, and create more joyful 'aha' moments in classrooms everywhere.

Let's build the future of learning.



Alexander Mitchell,
Head of US, LEGO® Education



**NEW**

LEGO® Education Science

LEGO® Education Science is our new **K-8 hands-on science solution** that connects students to science phenomena, while supporting teachers as they confidently deliver engaging science lessons.

- Select from 120+ easy-to-launch, standards-aligned science lessons designed to help all students reach 'aha' science moments.
- Leverage intuitive, purpose-built kits that you can set up, clean up, and store without restocking.
- Foster inquiry and collaborative problem-solving in groups of up to 4 students, using durable LEGO® bricks and interactive hardware.
- Access ready-to-go resources and support through the Teacher Portal, maximizing class time and reducing lesson prep time.

These solutions include

Grades K-2

- 40 curriculum-aligned lessons with building instructions
- Sturdy stackable box (1 kit : 4 students)
- 278 LEGO® bricks + 1 double motor per kit
- 1 USB charging cable

Grades 3-5

- 40 curriculum-aligned lessons with building instructions
- Sturdy stackable box (1 kit : 4 students)
- 336 LEGO® bricks + 1 double motor + 1 controller + 2 connection cards per kit
- 1 USB charging cable

Grades 6-8

- 40 curriculum-aligned lessons with building instructions
- Sturdy stackable box (1 kit : 4 students)
- 424 LEGO® bricks + 1 double motor + 1 controller + 1 single motor + 1 color sensor + 3 connection cards per kit
- 1 USB charging cable

Choose between classroom bundles and single kits.

Free Teacher Portal includes:

- Getting-started materials
- Lesson library
- Teacher support

Lesson Library includes:

- Student-facing lesson presentations
- Teacher facilitation notes
- Standards-alignment, 21st century skills, and pre-requisite knowledge info

Professional learning & implementation support upon request











Learn more at
 → LEGOeducation.com/science

Contents

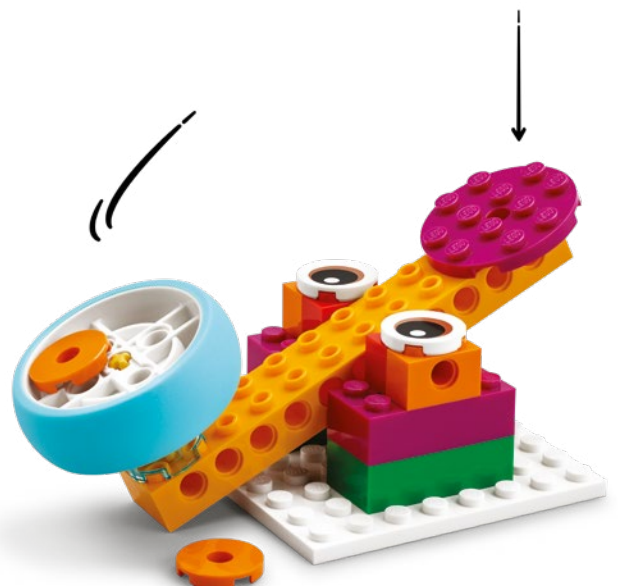
The future is in their hands	3
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Icons

-  Recommended number of students per set
-  Total number of elements in a set
-  Storage box included
-  Suitable age range of set
-  Projects/activities/lessons in a unit plan
-  Duration of project/activity/lesson
-  Free website downloads
-  Free app available



Start your learning journey now
 → [LEGOeducation.com](https://www.LEGOeducation.com)



We are LEGO® Education

For 45 years, our team of educators and innovators have built engaging learning experiences for students all over the world. But what we bring to the classroom is more than just fun — we're serious about learning outcomes.

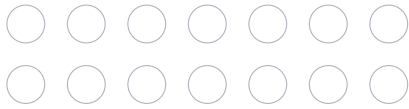
We work alongside educators to implement standards-aligned science and STEAM learning programs for K-8 to help students build academic knowledge and future-ready skills like critical thinking, creativity, problem-solving, and more. Our inquiry-based methodology has proven itself again and again because it supports educators and fits students' natural and intuitive way of learning — which is collaborative, hands-on, and fun.



Kindergarten STEAM Kits

Prepare kindergarten students for school and life by building confidence and social skills while igniting their STEAM journey.

LEGO® Education Early Learning tools inspire natural curiosity and encourage learning through play.



LEGO® Education BricQ Motion

Non-tech solutions with a focus on physical science.

LEGO® Education BricQ Motion provides a foundational understanding of physical science concepts and an analog introduction to computational thinking.

LEGO® Education SPIKE™ Portfolio

Premium, technology-enhanced STEAM solutions.

The LEGO® Education SPIKE™ portfolio encourages broad STEAM learning and the application of computational thinking with a focus on coding, technology, and digital integration.



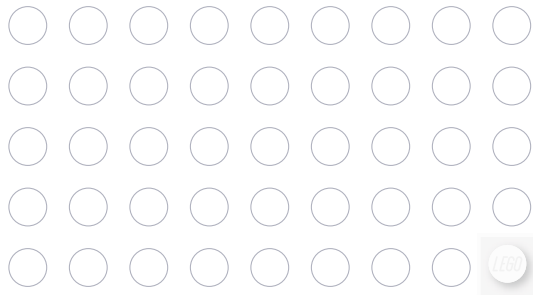
A Free App with Unlimited Possibilities



Engage every student in fun, hands-on STEAM learning with the free LEGO® Education SPIKE™ App. Designed for use with the LEGO® Education SPIKE™ Portfolio, the SPIKE App empowers teachers to make learning interactive and exciting. Students start with simple icon-based blocks, advance to Scratch-inspired word blocks, and eventually code in Python, bringing their projects to life. The SPIKE App provides an engaging learning journey where students can build, tinker, and experiment, progressing from basic builds to more complex creations — all while expanding their programming skills.



Learn more at
→ LEGOeducation.com/downloads



Bringing *FIRST*[®] LEGO[®] League into the Classroom



FIRST[®] LEGO[®] League introduces children ages 4-16 to science, technology, engineering, art, and math (STEAM) through fun, hands-on learning. With three divisions, *FIRST* LEGO League encourages students to explore, create, and sharpen critical thinking, coding, and design skills. In partnership with *FIRST*[®], LEGO[®] Education proudly develops programs and events that bring these enriching experiences to students worldwide.

FIRST[®] LEGO[®] League Class Packs & Lessons

Ideal for both core curriculum and afterschool activities, *FIRST* Class Packs provide educators with 12 guided sessions where students tackle STEAM concepts and work on real-world challenges related to each season's theme. Additional free online lessons are also available at LEGOeducation.com/lessons, helping teams build skills and confidence as they prepare for exciting challenges ahead!



Discover

This playful introductory STEM Program for children aged 4-6 ignites their natural curiosity and builds their habits of learning with hands-on activities in the classroom and at home using LEGO® DUPLO® bricks.

Benefits:

- Learn STEM fundamentals
- Hands-on learning



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 powered by LEGO® Education SPIKE™ Essential.

Benefits:

- Understanding concepts & building STEM skills
- Developing habits of learning



Challenge

Teams of students aged 9-16 engage in research, problem-solving, coding, and engineering – building and programming a LEGO® Education SPIKE™ Prime robot that navigates the missions of a robot game. They also participate in a research project to identify and solve a relevant real-world problem.

Benefits:

- Understanding real-world uses of STEM
- Applying critical thinking skills



Learn more about the three divisions:
 → LEGOeducation.com/Competition

Early STEAM Skills

Prepare preschool and kindergarten students for school and life by building confidence and social skills while igniting their STEAM journey.





- ✓ Science, Technology, Engineering, Art, Math
- ✓ Early Coding
- ✓ Early language & Literacy



I love the moments when I catch the children using Early Learning sets from LEGO® Education to teach each other. It shows how empowered the LEGO Education solutions help them to feel.

I absolutely love that.



Kate Lathem,
Early Learning Teacher, USA

Build Confidence from Early On

Children are born curious and eager to learn. The purpose of LEGO® Education Early Learning is to stimulate that natural curiosity and encourage learning through play in the youngest children. Our aim is to help prepare them for school and life by building their social skills and allowing them to begin their STEAM journey early on – with opportunities to also strengthen emotional learning, literacy, as well as early engineering and coding skills.

Supporting Teachers in the Classroom

LEGO Education Early Learning is all about building confidence and preparing children for school and life. To achieve this, it is crucial that every teacher succeeds in using our learning solutions in the classroom. Therefore, we provide a range of teacher materials and inspiration.

Solutions Include

Core

A tailored LEGO® DUPLO® brick set for building engaging, meaningful, hands-on learning experiences.

Unit Plans

Lessons developed using guidelines from the National Association for the Education of Young Children (NAEYC), the 21st Century Early Learning Framework (P21) and Head Start Early Learning Outcomes Framework. Some lessons are also aligned to Kindergarten standards from NGSS, CTSA and Common Core.

Support

- Getting-Started Materials
- Inspiration Cards
- Lesson Plans

Additions

Professional Development

Accessories


Replacement Packs



STEAM Park

Retiring Soon

45024  1-8  295  3-5 \$239.95




**Science,
Technology,
Engineering,
Art, Math**


STEAM Park builds on every kindergartener's natural curiosity and desire to create, explore, and investigate the world of early science, technology, engineering, art, and math (STEAM) through creative play. The possibilities are endless.


As students build a STEAM Park filled with dynamic rides, exciting games, and engaging scenes using a special selection of LEGO® DUPLO® bricks, they develop a deeper understanding of gears, motion, measurement, and collaborative problem-solving - all through hands-on, playful learning.


Key Learning Values


- Cause and effect
- Spatial awareness
- Observing and describing
- Problem-solving
- Role play and collaboration

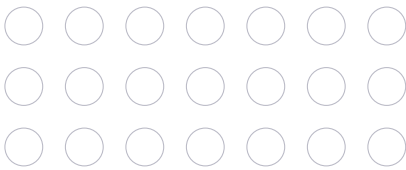
 **11 Lessons**
Standards-aligned experiences ready for class.

 **295 Elements**
Including bricks, gears, ramps & pulleys.

 **Resources**
Classroom activities & technical support.


 **Community**
Learn & share with other teachers.

 **Teacher Training**
Teacher resources & getting started materials.



My XL World

Retiring Soon

45028  1-10  480  2-6 \$309.95



✓ Social Skills

Working in groups of 2-10, children use the colorful collection of 480 LEGO® DUPLO® bricks, figures, wheel bases, windows, doors and a building plate to build their home,

a restaurant, bus stop, hospital and a fire station. They'll also discover an airplane, car and even a submarine, and will use their imagination to build fantasy animals and make up fun stories of their own.

Key learning values

- Collaboration
- Role play
- Roles and responsibilities



8 Lessons

Standards-aligned experiences ready for class.



480 Elements

Including bricks, flowers, windows, doors, & six DUPLO figures.



Resources

Classroom activities & technical support.



Community

Learn & share with other teachers.






Professional Development

Teacher resources & getting-started materials.



Coding Express

45025  1-6  234  2-5 \$259.95



 **Early Coding**

LEGO® Education Coding Express is a creative, intuitive, and versatile kindergarten solution that introduces students to early coding concepts that naturally spark their curiosity, creativity and desire to explore and learn together as they prepare for school. LEGO Education Coding Express makes it intuitive and fun for kindergarten students to learn early coding concepts and critical 21st century skills through playful, hands-on learning with LEGO® DUPLO® bricks. Coding Express lessons are aligned to kindergarten standards for Common Core, CSTA, and NGSS.

Download the LEGO Education Coding Express App for free to unlock more learning opportunities.

Key learning values

- Sequencing, looping, and conditional coding
- Expressing ideas using digital elements
- Language and literacy
- Collaboration
- Problem-solving and critical thinking



8 Lessons

Standards-aligned experiences ready for class.



Resources

Classroom activities & technical support.



234 Elements

Including bricks, DUPLO® Connected Train Hub & tracks.



Professional Development

Teacher resources & getting started materials.



Coding App

LEGO® Education Coding Express App for students included.



Community

Learn & share with other teachers.

Resources

Classroom activities & technical support.





System Requirements

Coding Express supports a range of Android and iOS devices. To find out if your device is supported, after visit

LEGOeducation.com/start



Action Bricks

Action bricks make the train come alive



Story Tales

45005  1-4  109  3-6 \$179.95



 **Early literacy skills**

With StoryTales, kindergarten students engage in imaginative storytelling to practice early literacy and communication skills. Students will naturally collaborate and develop speaking and listening skills as they build their stories and role-play. Learning with StoryTales encourages kindergarteners to be creative while developing effective communication and narrative skills.

Key learning values

- Storytelling
- Speaking and listening
- Language and literacy



8 Lessons

Standards-aligned experiences ready for class.



109 Elements

Including bricks, characters, & background cards.



Resources

Classroom activities & technical support.



Community

Learn & share with other teachers.



Professional Development

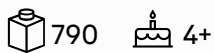
Teacher resources & getting-started materials.



LEGO® Large Creative Brick Box

10698 \$59.99

This set inspires open-ended building play with lots of windows and doors for creating houses, shops, and more.



Grey Baseplate

11024 \$14.99

This 48x48-stud grey baseplate opens a whole world of imaginative possibilities. This quality baseplate has enough grip to hold LEGO building bricks at any angle, even upside down!



Medium Storage

45496 \$144.95

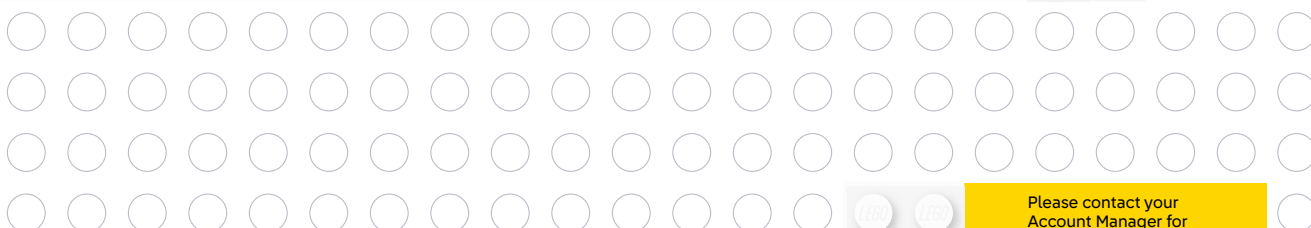
This storage box comes in packs of 8 and is available in yellow. Each box has a white lid and is stackable both with and without the lid. The box is similar in size to the storage boxes for LEGO® Education SPIKE™ Essential and LEGO® Education SPIKE™ Prime.



Sorting Top Tray

45499 \$99.95

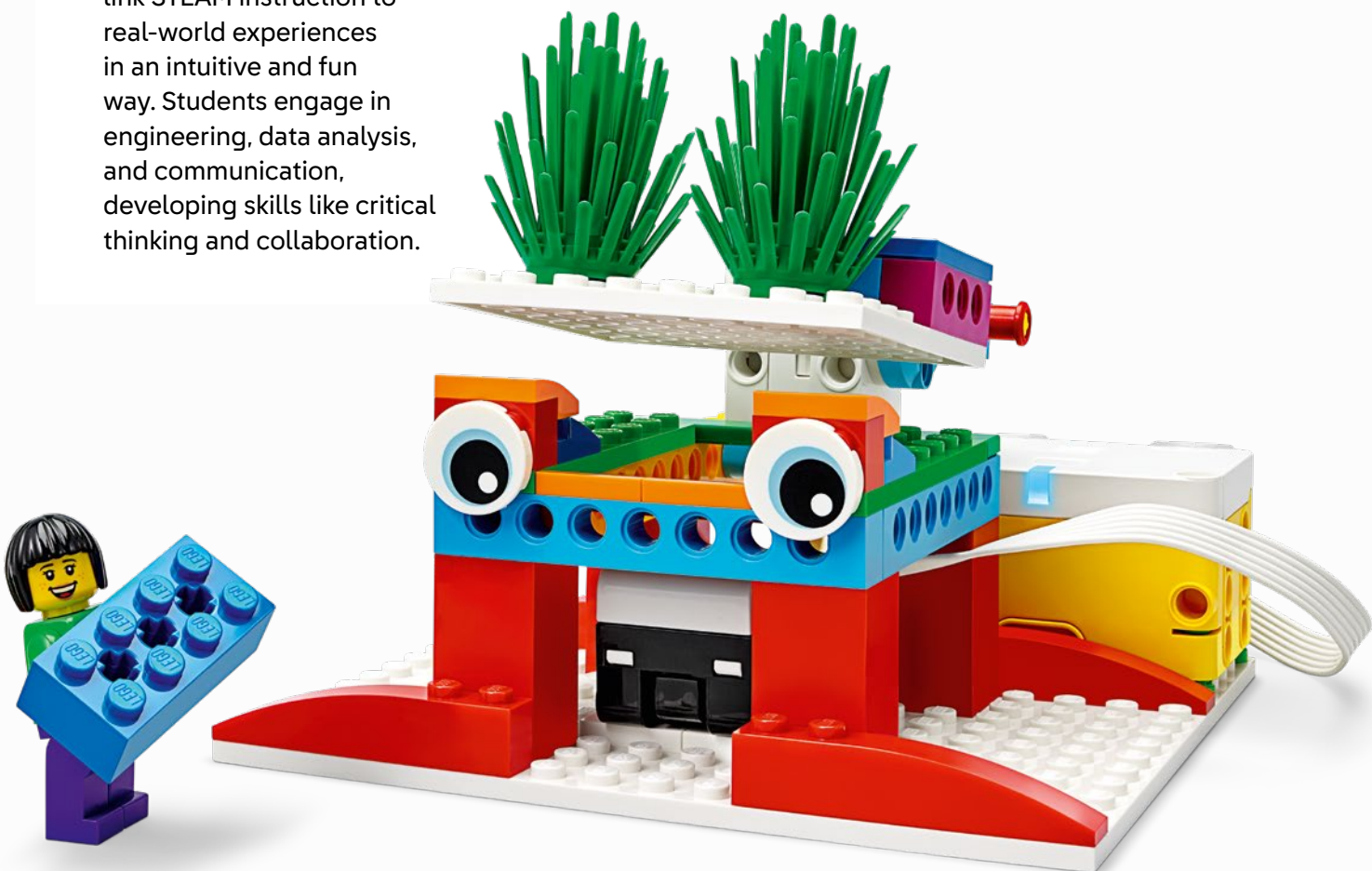
Comes in packs of 12. Fits small (45497), medium (45498), and large (9840) LEGO® Education storage boxes.




Please contact your Account Manager for information on Classroom Bundles
 → [LEGOeducation.com](https://www.LEGOeducation.com)

Elementary School STEAM Skills

LEGO® Education solutions link STEAM instruction to real-world experiences in an intuitive and fun way. Students engage in engineering, data analysis, and communication, developing skills like critical thinking and collaboration.





- ✓ Science, Technology, Engineering, Art, Math
- ✓ Coding

Code Confidently

Develop students coding capabilities by progressing from icon blocks to word blocks based on Scratch.



System Requirements

LEGO® Education SPIKE™ Essential utilizes a coding language based in Scratch with your choice of operating system: iOS, Chrome, Windows 10, Mac and Android.

To find out if your device is supported, please visit:

LEGOeducation.com/start

LEGO® Education SPIKE™ Essential Ignite Elementary School Students' Passion for STEAM Learning

Engage students in hands-on investigation of STEAM concepts while contributing to literacy, math, and social-emotional development. LEGO® Education SPIKE™ Essential excites students and delivers strong STEAM learning outcomes, developing their STEAM knowledge and practices — and 21st century skills.



This solution includes



100+ Hours of Learning

Standards-aligned experiences ready for class.



Resources

Classroom activities & technical support.



449 Elements

Including bricks, motors, sensors, & hub.



Professional Development

Teacher resources & getting-started materials.



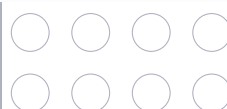
Coding App

LEGO® Education SPIKE™ App for students included.



Community

Learn & share with other teachers.



Meet Maria, Daniel,
Sofie, and Leo

The four, relatable Minifigures are a core component of the SPIKE Essential experience. Each one has different characteristics that students will identify with as they use storytelling to solve problems in an engaging and meaningful way. Each of the four Minifigures, named Maria, Daniel, Sofie, and Leo, has their own biography.



Core Set

LEGO® Education SPIKE™ Essential Set

45345  1-3  449  6+  \$329.95

LEGO® Education SPIKE™ Essential, part of the LEGO® Learning System, is the cross-curricular STEAM solution for elementary education. SPIKE Essential engages students in hands-on investigation of STEAM concepts while contributing to literacy, math, and social-emotional development. Standards-aligned learning units use everyday themes, relatable Minifigures with different personalities, and familiar LEGO® building elements to solve problems through storytelling.

SPIKE Essential consists of a main classroom brick set with a wide variety of LEGO® elements and intelligent hardware, along with the intuitive SPIKE™ App, all of which is accompanied by a selection of unit plans and comprehensive online and in-app support.

Standards-Aligned Learning Units

Standards-aligned learning units use everyday themes, relatable Minifigures with different personalities, and familiar LEGO® building elements to solve problems through storytelling.

SPIKE Essential lessons are aligned to NGSS, ISTE, and CSTA standards with the extensions aligned to CCSS.



Delivering Strong Learning Outcomes

SPIKE Essential offers 10 learning units of 8 x 45-minute, standards-aligned STEAM lessons.

Five of the units have a strong emphasis on science with 5 lessons each and 50 hours of science-focused learning for 1 - 5 grade. In total, SPIKE Essential offers more than 70 lessons and more than 100 hours of learning.

Each lesson includes comprehensive online lesson plans with language arts and math extensions. Assessment rubrics and videos to support teachers are also included.

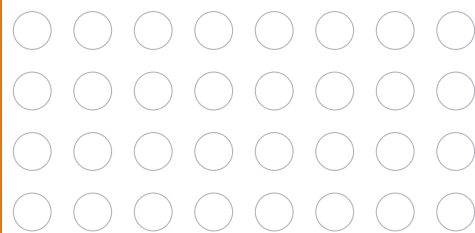
To further build teacher confidence in STEAM teaching using the LEGO Learning System, SPIKE Essential is supported by a comprehensive professional development program.



The lesson was really cool and interactive. My students got to problem-solve, build, and use their hands - the kids who can't read were fine, too - and it incorporates technology, which is very motivating.



**3rd Grade Teacher,
Rockaway Borough,
New Jersey, USA**





LEGO® Education SPIKE™ Essential includes integrated *FIRST*® LEGO® League Explore unit

Through our partnership with *FIRST*® we offer the *FIRST* LEGO League Explore division for the primary school age range – the middle division of *FIRST* LEGO League. We co-develop and support the Explore program and events that bring awesome hands-on, problem-solving learning opportunities to students all over the world.

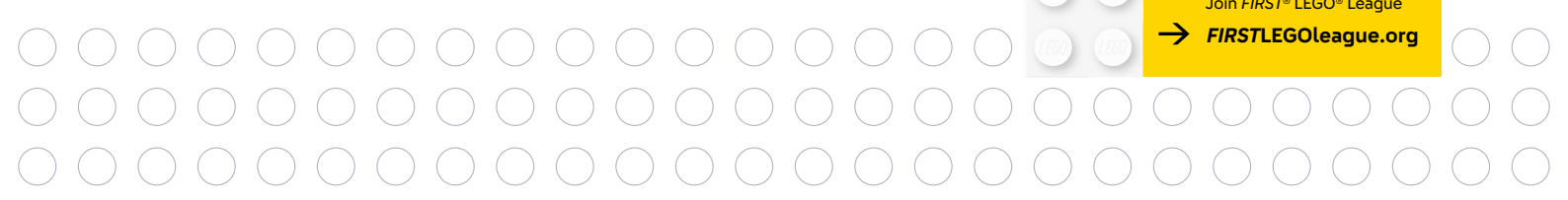
With the integrated unit for Explore, LEGO® Education SPIKE Essential extends its creative spirit inside the classroom and beyond it to robotics clubs, coding programs, afterschool clubs, and maker spaces. STEAM programs are a highly motivating and engaging way for students to develop and demonstrate their STEM skills. *FIRST* LEGO League Explore helps students learn the cooperation, collaboration, and teamwork skills they'll need to excel in a changing workforce.

Using SPIKE Essential with Explore helps students learn building and programming skills they can apply in wider contexts. As a starting point, they learn to motorize a part of the model they build throughout the Explore season.

To learn the basics there are 3 lessons in the Explore Unit: Learn about Motors, Learn about Sensors, and Learn about Driving Robots. They are written in context with the Explore program. Each lesson provides 3 possible base models from the existing set of models, with one of them used in a full guided flow. The other model options provide a more challenging and varied experience for confident teams and coaches, or those already familiar with the set.

The minifigure characters as a *FIRST* LEGO League team in their treehouse Invention Lab tie the SPIKE Essential narrative in with *FIRST* LEGO League Explore.

The Explore experience in the SPIKE Essential Unit is integrated into the Team Meeting Guide and Engineering Notebook. The Explore guidebooks prompt students to go further with the tasks in the app, providing specific challenges for the current season, tailoring their build to the season theme and real-world problems to be solved.







Science,
Technology,
Engineering,
Art, Math



The lessons were really enjoyable – kids loved them, I enjoyed teaching them, and the students did a really nice job of collaborating together, building together and they really got the concepts in the end.

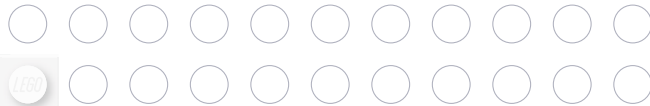


3rd grade teacher
Barrington, Illinois, USA

LEGO® Education BricQ Motion Essential

Encourage Students to Discover Physical Science in Action

The LEGO® Education BricQ Motion Essential set engages grade K-5 students in the exploration of physical science within a sports context. This introductory STEAM experience offers standards-aligned lessons that include engaging videos and printable worksheets to excite and inspire students. Lesson plans, teacher videos, assessment rubrics, and math and language arts extensions are included to support and scaffold teachers.



This solution includes



20+ Hours of Learning

Standards-aligned experiences ready for class.



Resources

Classroom activities & technical support.



523 Elements

Including bricks, gears, & springs.



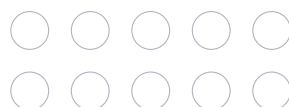
Professional Development

Teacher resources & getting-started materials.



Community

Learn & share with other teachers.



Core set

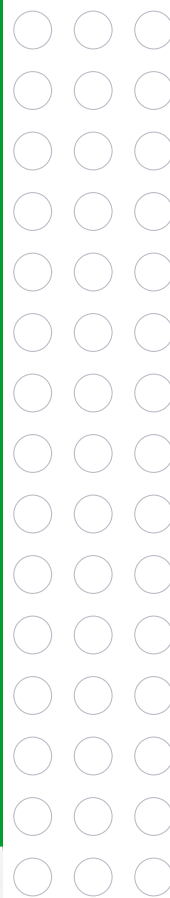
Retiring Soon

LEGO® Education BricQ Motion Essential Set

45401  2  523  6+  \$159.95

BricQ Motion helps foster an understanding of forces, motion, and interactions by providing easy hands-on learning experiences without the need for technology. BricQ Motion Essential lessons are aligned to NGSS, ISTE, and Common Core ELA literacy standards with Common Core math as lesson extensions.

- Printed building instructions and replacement elements are included for easy classroom management.
- Numbered tiles facilitate visual math practice, making math more relevant, creative, and fun.



LEGO® Education SPIKE™ Essential Elements



LEGO® Technic™ Small Hub

45609 \$229.95

The advanced yet simple-to-use, brick-shaped device features 2 input/output ports, Bluetooth connectivity, 6-axis gyro, and a rechargeable battery with micro USB charging and connection port. The Small Hub is at the heart of any SPIKE™ Essential model.



LEGO® Technic™ Small Angular Motor

45607 \$49.95

Features a compact design profile and an integrated rotation sensor with absolute positioning and precise accuracy to bring LEGO® builds to life.



LEGO® Technic™ 3x3 Color Light Matrix

45608 \$49.95

For use with LEGO Technic Hubs, each of the 9 pixels can be coded to display 10 different colors and 10 brightness levels for endless creative possibilities.



LEGO® Technic™ Color Sensor

45605 \$39.95

Distinguishes between 8 colors and measures reflected and ambient light from darkness to bright sunlight.



LEGO® Technic™ Small Hub Battery

45612 \$74.95

Rechargeable lithium-ion battery for use with the Technic Small Hub (45609). This 630 mAh battery can be charged while fitted to the hub using a micro USB cable and can also be removed quickly and conveniently without the need for tools. This battery is included with the LEGO Technic Small Hub and LEGO Education SPIKE™ Essential Set (45345).



LEGO® Technic™ Micro USB Connector Cable

45611 \$12.95

Connects compatible computers and tablets with the 45601 Large Hub for tasks such as transferring data, performing firmware updates, and charging the Large Hub.



Replacement Packs



LEGO® Education SPIKE™ Essential Replacement Pack 1

2000722 \$6.95

Keep your LEGO® Education SPIKE™ Essential Set (45345) in perfect working order with 97 spare LEGO elements. This set of replacement elements also ensures that you don't waste time hunting for lost pieces during class-time activities.



LEGO® Education SPIKE™ Essential Replacement Pack 2

2000727 \$6.95

Ensure that your SPIKE™ Essential Set always has a complete set of minifigures with this replacement set of 4 minifigures.



Please contact your Account Manager for information on Classroom Bundles

→ [LEGOeducation.com](https://www.legoeducation.com)

Middle School STEAM Skills

LEGO® Education solutions grow with students, building confidence in STEAM skills like coding and computer science. Simultaneously, they foster 21st century skills like collaboration and critical thinking.





- ✓ Science, Technology, Engineering, Art, Math
- ✓ Coding

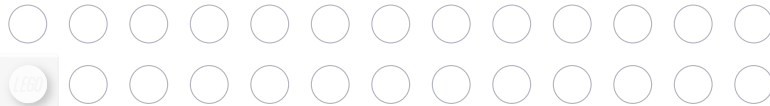
Code Confidently

The intuitive coding environment for tablets and computers is based on the popular coding language Scratch, creating a system that teachers and students will love.



LEGO® Education SPIKE™ Prime Building STEAM Skills and Confidence in Middle School

Part of the LEGO® Learning System, LEGO® Education SPIKE™ Prime engages all students in thinking critically, analyzing data, and prototyping creative hands-on solutions for complex problems with real-world relevance. From easy-entry lessons to advanced experiences, students of all learning levels build their confidence and resilience along with the 21st-century skills that are vital to their future success. Flexible built-in scaffolding and competency-based professional development opportunities make it easy for teachers to get started and move from one unit to the next.



System Requirements

LEGO® Education SPIKE™ Prime utilizes a coding language based on Scratch with your choice of operating system: iOS, Chrome, Windows 10, Mac, and Android. To find out if your device is supported, please visit:

LEGOeducation.com/start

This solution includes



50+ Hours of Learning

Standards-aligned experiences ready for class.



Resources

Classroom activities & technical support.



528 Elements

Including bricks, motors, sensors, & hub.



Professional Development

Teacher resources & getting started materials.



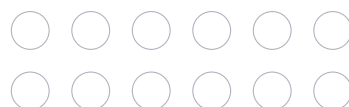
Coding App

LEGO® Education SPIKE™ App for students included.



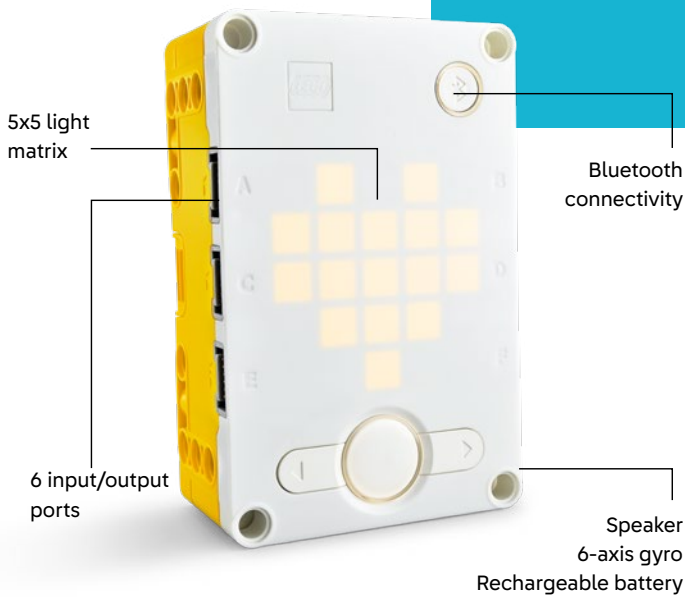
Community

Learn & share with other teachers.





The Hub



The heart of the LEGO® Education SPIKE™ Prime system is the programmable Hub. The SPIKE Prime Set also includes highly accurate motors and sensors that, together with a large variety of colorful LEGO building elements, let students design and build fun robots, dynamic devices and other interactive models.

Many attachment points on the Hub, motors, and sensors, plus new, large building elements means students spend less time building and more time learning.

Core Set

LEGO® Education SPIKE™ Prime Set

45678



1-2



528



10+

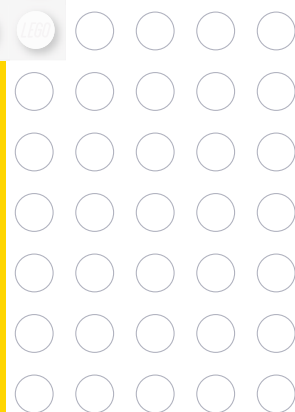


\$399.95

The LEGO® Education SPIKE™ Prime Set is the go-to STEAM learning tool for grade 6-8 students.

Combining colorful LEGO building elements, easy-to-use hardware, and an intuitive drag-and-drop coding language based on Scratch, SPIKE Prime continuously engages students through playful learning activities to think critically and solve complex problems, regardless of their learning level.

From easy-entry projects to limitless creative design possibilities, including the option to explore text-based coding with Python, SPIKE Prime helps students learn the essential STEAM and 21st century skills needed to become the innovative minds of tomorrow... while having fun!



Intuitive App Scales from Easy-Entry to Limitless Creative Design

The SPIKE App is a student-facing app that can be used with both SPIKE Essential and SPIKE Prime to follow and complete lessons. The app includes “getting-started” materials, lessons, building instructions, and a series of coding experiences that progress from icon- and word-block coding based on Scratch to text-based coding based on Python.

Expansion Set

LEGO® Education SPIKE™ Prime Expansion Set

45681  604  10+  \$156.95

Inspire your secondary school students to explore more advanced creations and continue to nurture their interest in STEAM learning with the LEGO® Education SPIKE™ Prime Expansion Set (45681). It comes with over 600 LEGO elements, including large wheels, gear racks, a Color Sensor and Large Motor, plus a unique Maker Plate for easy building with your choice of single board computing (SBC) devices. The set also combines with the SPIKE Prime Set (45678) and free SPIKE App to launch students and teachers into the exciting world of robotics competitions, with over 10 hours of curriculum-based, competition-ready learning.



Requires additional products

LEGO® Education SPIKE™ Prime Set (45678)



Science,
Technology,
Engineering,
Art, Math



I try to place as many real-world experiences as possible in front of my students because I believe that hands-on learning pushes critical thinking skills.



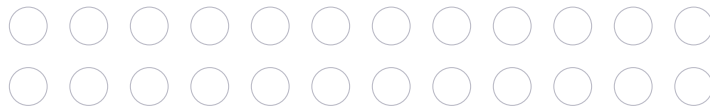
Mindy Bissett
Lead Computer Science Teacher

LEGO® Education BricQ Motion Prime

Encourage Students to Discover Physical Science in Action

Part of the LEGO® Learning System, LEGO® Education BricQ Motion helps foster an understanding of forces, motion, and interactions by providing easy, hands-on learning experiences without the need for technology.

This introductory STEAM experience offers standards-aligned lessons that include engaging videos and printable worksheets to excite and inspire students. Teacher resources include lesson plans, teacher videos, assessment rubrics, and math and language arts extensions to support and scaffold teachers.



This solution includes



10+ Hours of Learning

Standards-aligned experiences ready for class.



Resources

Classroom activities & technical support.



564 Elements

Including bricks, gears, & springs.



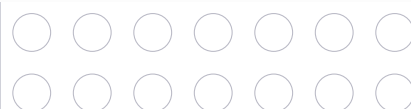
Professional Development

Teacher resources & getting-started materials.



Community

Learn & share with other teachers.



Core Set

Retiring Soon

LEGO® Education BricQ Motion Prime Set

45400  2  562  10+  \$159.95

The LEGO® Education BricQ Motion Prime Set engages secondary students in the exploration of physical science within a sports context.

BricQ Motion helps foster an understanding of forces, motion, and interactions by providing easy hands-on learning experiences without the need for technology.

- Printed building instructions and replacement elements are included for easy classroom management.
- With the numbered foils, students can easily gather data on variables, angles, heights, and lengths to support their analysis and synthesis.



The Proven Impact of *FIRST*[®] LEGO[®] League

***FIRST*[®] LEGO[®] League introduces science, technology, engineering, and math (STEM) to children ages 4-16 through fun, exciting hands-on learning.**

Through the program, we aim to ensure that we are having a lasting, positive impact on participants across all demographic groups. The rigorous, multi-year, longitudinal study conducted by Brandeis University Center for Youth and Communities, provides strong evidence that participation in *FIRST* LEGO League does just that. Even with just one year of participation, study participants are 2-3x more likely to have gains in STEM awareness, skills, and intent than a comparison group of peers not participating in *FIRST* programs. Besides general findings on gains in STEM Awareness, 21st Century skills, and confidence – across all three *FIRST* LEGO League divisions, Brandeis University has conducted additional research on several focus areas.



Impact on girls and young women

Women are critical to the advancement of STEM (Science, Technology, Engineering, and Math) – but a significant gender gap remains within STEM careers. Through our partnership with *FIRST*, we are actively developing ways to address barriers to access and participation, particularly in managing and allocating resources, programs, and educational opportunities fairly to all genders.

”

FIRST has made such a large impact on my life that I don't know where or who I would be without it. I have been involved with *FIRST* for seven years, and the experiences that I have had have given me public speaking skills, confidence in my abilities, and life-long friendships. *FIRST* also has given me the opportunity to inspire others in STEAM fields.

“

STEM Outcomes

Female *FIRST* participants are 2.2x more likely to show a significantly stronger interest in STEM than their peers.

They are also more likely to achieve better outcomes in STEM attitudes, knowledge, and interests compared to the comparison group.

3.2x

STEM Activity

2.2x

STEM Interest

2.1x

STEM Knowledge

1.9x

STEM Careers

1.4x

STEM Identity

“x” = times as likely



LEGO® Education SPIKE™ Prime Elements

 6+ Unless noted

LEGO® Technic™ Large Hub

45601 \$329.95

This advanced yet simple-to-use brick-shaped device features 6 input/output ports for connecting a variety of sensors and motors, a customizable 5x5 light matrix, Bluetooth connectivity, speaker, 6-axis gyro, rechargeable lithium-ion battery and a micro USB port for connectivity with compatible computers and tablets.



LEGO® Technic™ Large Angular Motor

45602 \$55.95

The ideal solution for high-power, high-torque applications, featuring an integrated rotation sensor and absolute positioning for true straight-line control.



LEGO® Technic™ Medium Angular Motor

45603 \$49.95

Build responsive models with this compact motor, featuring an integrated rotation sensor, absolute positioning, and 1-degree accuracy.



LEGO® Technic™ Distance Sensor

45604 \$55.95

Deliver high-accuracy results. 1-200cm range, +/- 1cm accuracy, programmable LED 'eyes' and an integrated 6-pin adaptor for third-party sensors, boards and DIY hardware.



LEGO® Technic™ Color Sensor

45605 \$39.95

Distinguishes between 8 colors and measures reflected and ambient light from darkness to bright sunlight.



LEGO® Technic™ Force Sensor

45606 \$39.95

Measure pressures of up to 10 Newtons (~1kg) for accurate, repeatable results. Can also be used as a touch sensor when the front button is pressed, released, or bumped.



LEGO® Technic™ Large Hub Battery

45610 \$84.95

Rechargeable lithium-ion battery for use with the 45601 LEGO® Technic™ Large Hub (sold separately).

This high-capacity, 2,000 mAh battery can be charged while fitted to the Hub using a micro USB cable and can also be removed quickly and conveniently without the need for tools. This battery is included with the 45601 Technic Large Hub and LEGO Education 45678 SPIKE™ Prime Set.



LEGO® Technic™ Micro USB Connector Cable

45611 \$12.95

Connects compatible computers and tablets with the 45601 Large Hub for tasks such as transferring data, performing firmware updates and charging the Large Hub.



Replacement Packs

 107  10+

LEGO® Education SPIKE™ Prime Replacement Pack

2000719 \$6.95

Keep your LEGO® Education SPIKE™ Prime Set (45678) in top condition with this replacement pack. Featuring over 100 LEGO Technic™ and System elements, this pack ensures you spend less time searching for missing pieces and more time engaging in hands-on learning.



Please contact your local distributor for information on classroom bundles

→ [LEGOeducation.com](https://www.legoeducation.com)



LEGO® Education Professional Learning

Engaging Learning
Experiences for Educators



Facilitated Professional Learning and Coaching

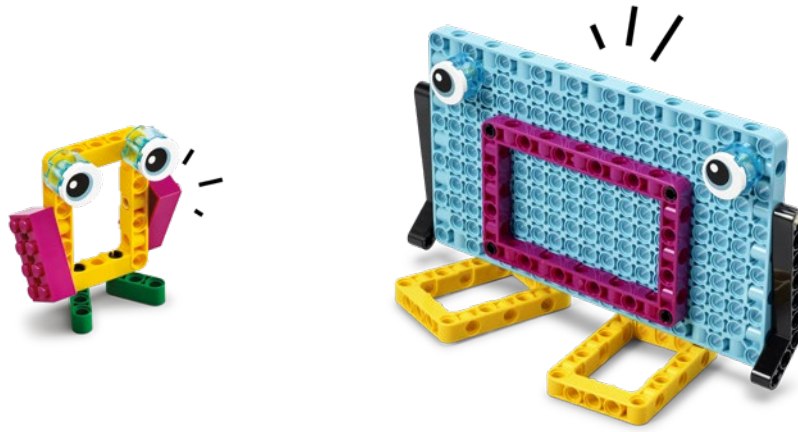
LEGO® Education Facilitated Professional Learning enables educators to actively engage in experiential professional learning programs designed to produce a strong set of transferable instructional skills and strategies that foster student success. Facilitated learning courses are led by a certified LEGO® Education Academy trainer.

Educator Success Program

LEGO® Education Educator Success provides support for educators to get the most from their LEGO Education solutions. This free program provides tips and resources to ensure you have a smooth start and ongoing impact throughout your LEGO Education program. Throughout the year, we'll share innovative classroom ideas, invitations to interactive web events, and opportunities to participate in our LEGO® Education Community. Enroll yourself or enroll multiple educators in your district if you're an administrator.

Start your learning journey now
→ LEGOeducation.com/community





Ordering Information

Place your order in one of four ways:

Online: LEGOeducation.com

Email: orders@LEGOeducation.us

Phone: 800-362-4308

Fax: 888-534-6784

Shipping Information

Order value threshold	Standard shipping ground	Expedited 2nd day	Shipping next day
Less than \$200	\$15	\$55	\$75
\$200-\$299	\$8	\$55	\$75
\$300+	Free	\$55*	\$75*

Shipping Prices Good Through December 31, 2025.

Orders over 150lbs will travel via freight carrier and cannot be expedited.

* Evaluated separately for each order

Generally, our products are not to be shipped or resold outside the US. However, we can ship to locations outside the United States under special circumstances. If you have any questions about this policy, call 800-362-4308 during our business hours Monday through Friday from 7:30 A.M. to 5:30 P.M. Eastern time.



Find additional support and details
→ LEGOeducation.com/support



Sales Representatives

LEGOeducation.com/find-your-rep

Our team of experts is here to help find the solution that fits your district, school, and students' needs.



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844-903-LEGO (5346)

Our technical support staff are well-trained and knowledgeable. Call if you need help or have challenges with any of our products.



Customer Service

800-362-4308

Our friendly customer service staff will assist you in placing orders and resolving any concerns.



Hours

Monday through Friday from

8:30AM – 5:30PM

Eastern Standard Time.

We're closed on major holidays.



Product Price List

ITEM	GRADE LEVEL	RATIO	QUANTITY	PRICE	TOTAL
STEAM Park	PreK-1	4 to 1		\$239.95	
Coding Express	PreK-1	4 to 1		\$259.95	
LEGO® Education BricQ Motion Essential	1-5	2 to 1		\$159.95	
LEGO® Education SPIKE™ Essential	1-5	2 to 1		\$329.95	
LEGO® Education BricQ Motion Prime	6-8	2 to 1		\$159.95	
LEGO® Education SPIKE™ Prime	6-8	2 to 1		\$399.95	
LEGO® Education SPIKE™ Prime Expansion Set	6-8	2 to 1		\$156.95	
Personal Learning Kits	K-8	1 to 1		\$12.95	
6-Hour Facilitated Professional Development (face-to-face)	Teacher	Up to 20		\$3,495.00	
2-Hour Virtual Professional Development (synchronous)	Teacher	Up to 20		\$995.00	
TOTAL					

The LEGO® Education sets are non-consumable and can be used year-over-year. There are no annual licenses or subscription fees associated with the sets. Kits are a one-time cost, and our lesson materials and curricular resources are always available free of charge. Prices may vary depending on local taxes and/or available contracts*. Learn more at LEGOeducation.com.

*Please note that this pricing is valid until December 31, 2025.

→ LEGOeducation.com

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Sales tax will be applied as applicable, unless your order is to a tax-exempt school, district, or entity. For tax-exempt orders, please ensure a valid tax exemption certificate is on file prior to shipment.



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