

## Dr. Toy's Best Gifts to Launch STEM Learning©

By Stevanne Auerbach, PhD. Dr. Toy®

As a parent you can help encourage and support educational play every day and help your child to be a more productive learner at home and in the classroom. While your child's world expands you can help your child to be ready, and to grow, learn and develop to his or her fullest potential. An important part of the parent's role is to guide, teach and encourage children to make the most of their after school and playtime hours.

The latest most important learning initiative involves STEM! That is education that supports **Science, Technology, Engineering and Math** to expand national awareness and improve abilities in these areas in schools, homes and workplaces. There is a growing support for more focus on STEM as an important area for improvement of students and for teachers and parents to also become better prepared and expand their knowledge in these essential areas.

We want to assist parents to know more about some of the best and most useful play products they can easily obtain to help their children gain more confidence and experience in these areas, and increase their skills for school now and improve future earnings. Many of these products have been developed in the Bay Area (see BA in the descriptions) and several of the products are made in America (see MA).

These are some of the latest and best products for a full range of STEM experiences.

### 1. **4M Green Science Salt-Powered Robot** **8-12 yrs. \$12.50**

[www.4m-in.com](http://www.4m-in.com)

This Green Salt-Powered Robot instills green science. Your young scientist can put together the robot mini vehicle, add salty water to the power compartment, and off it goes! No batteries required! Amazing! 4M specializes in creative games and craft kits for curious kids and enliven kid's natural curiosity.





play, improve communications, and expand discovery and develop skills necessary in life. Folkmanis offers many varied realistic puppets that encourage traditional and distinctive natural play with imagination essential in a healthy childhood. BA

**5. GoldieBlox and The Spinning Machine**  
**4-9 yrs. \$29.99**

[www.goldieblox.com](http://www.goldieblox.com)

GoldieBlox inspires the next generation of female engineers. Girls often lose interest early in math and science. Research shows the earlier kids get interested in math and science, the more likely they are to enter those fields. This series of interactive books plus construction toys stars Goldie, a curious girl with a love of engineering. The stories encourage girls to build, and as a result will develop spatial skills fundamental to engineering and math. Adventures lead to problems to solve by building simple machines. Your child can learn to build and gain basic understanding of scientific principles. BA



**6. Green Kid Crafts Discovery Box**  
**3-10 yrs. \$16.95**

[www.greenkidcrafts.com](http://www.greenkidcrafts.com)

Discovery Box activities teach kids about taking care of themselves and the planet. Offers engaging way to explore, create, and learn fun hands-on, educational, eco-friendly choices for science projects. An affordable subscription box where every month kids receive a box of at least 3 fun and inspiring projects to engage them with nature that covers from planting herbs to making simple games from recycled felt and ribbon. STEM Science Kits make science exciting



through hands-on science, technology, engineering, and mathematics experiments. The kits facilitate thinking, questioning, inquiring, and original creation to guide children through scientific inquiry and engineering design process.

**7. Green Toys Rocket**

**2-10 yrs. \$24.99**

[www.greentoys.com](http://www.greentoys.com)

The Green Toys™ Rocket launches an eco-friendly space mission. Made from 100% recycled plastic milk jugs that save energy and reduce greenhouse gas emissions, spacecraft takes off in search of other planets while taking care of this one. Fully equipped, 2-in-1 set has detachable top capsule and two astronauts with molded spacesuits, helmets, and dual-tank backpacks. Powered by a main booster and three auxiliary fin boosters, the Rocket has a large door that flips down to double as a set of steps up into the main cavity, while the detachable nose cone capsule has its own door that opens to reveal buttons, dials, and Green Toys 8-track. No BPA, phthalates, PVC, or external coatings and dishwasher safe for easy cleaning. Packaged with recycled and recyclable materials and printed with soy inks. BA and MA



**8. Kiwi Crate Tinker Crate**

**9-12 yrs. \$12.95**

[www.kiwicrate.com](http://www.kiwicrate.com)

Kiwi Crate subscription sparks creativity, exploration, and discovery. Each month, kids engage in fun hands-on activities designed around an educational theme. Every box includes materials and inspiration to explore two or three enriching science, art, or imaginative play projects. Tinker Crate is focused

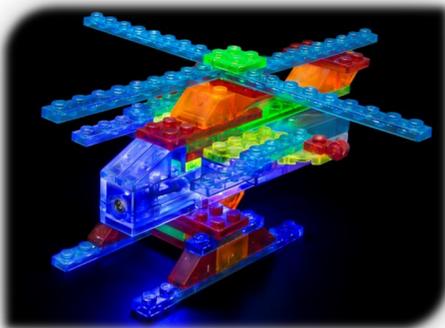


on STEM to help kids to build their problem solving skills, to gain confidence and curiosity to tackle problems and to inspire kids to see themselves as creators and makers, not just consumers. What is delivered are materials and instructions to explore a new STEM-based topic each month, plus a 16-page *Tinker 'Zine*, chock-full of at-home experiments and amazing science stories to extend the learning opportunities. Future crates explore electricity and magnetism by building electric motor, world of polymers through slime lab concoctions, and experiment with physics of projectiles.

**9. K'NEX Brands TINKERTOY  
100 Piece Essentials Building Set  
3-12 yrs. \$34.99**

[www.knex.com](http://www.knex.com)

This iconic Tinkertoy building set features the most familiar parts including spools, rods, flags, washers, end caps, and more. The set comes with a colorful instruction sheet that features building tips and ideas. Package also doubles as a sturdy, storage box for easy clean-up and portability. Celebrating its 100th anniversary in 2013, this classic toy has continued to delight children plus foster creativity, develop fine motor and problem solving skills, and basic math concepts for a century. The set includes American made spools, rods, flags, washers, end caps and more. MA



**10. Laser Pegs Ventures Laser Pegs MPS Helicopter 4 in 1 Kit  
5 yrs-12 yrs. \$14.99**

[www.laserpegs.com](http://www.laserpegs.com)

Your child will have fun and learn when you build four unique light-up helicopter models with one easy-to-use set that includes the Mobile Power Source (the smallest Laser Pegs® Power Base), 2 Laser Pegs, and 45

construction parts. Take your construction toy creations to new heights. Don't forget to bring life to your toy helicopters with the MPS flashing light setting. Mobile Power Source is the smallest Laser Pegs Power Base, which allows kids to take educational toys on the go.

Children enjoy illuminated light-up models safely as a low current travels from one peg to the next. The batteries are easy-to-replace and the source can accommodate up to four Laser Peg connections.

**11. LeapFrog Leap Reader Interactive Human Body Discovery Set  
4-8 yrs. \$17.99 [www.leapfrog.com](http://www.leapfrog.com)**

Children are naturally curious about the world around them. With the Human Body Discovery Set, kids discover how the human body works through play and exploration. With this two-sided interactive chart and game board they will learn about the



human body and understand the characteristics of living things. They will also learn how the body's systems, develop and function; about food science, including nutrition and diet, to help them make smart choices concerning health; and also learn how diseases are caused and can be prevented. Reinforce learning with 40+ activities, 300+ audio responses, an interactive growth chart and glow-in-the-dark stickers Track your child's growth and mark milestones with the Growing Body chart and interactive sticker sheets (included). BA

**12. LEGO Systems LEGO® DUPLO® Toddler Starter Building Set  
1.5-5 yrs. \$19.99  
[www.lego.com](http://www.lego.com)**

This fun 37 piece building set introduces children to sorting, building cognitive and motor skills and developing social, emotional, and imaginative skills while also delivering multiple play opportunities, long-term value and endless combinations. Includes an assortment of color-coded basic and rounded bricks, plus corresponding blue, yellow, and red sorting plate lids that double as simple building platforms. Instructions to create a parrot, an elephant, and a giraffe are included. Fully compatible with standard DUPLO bricks.



**12. LightUp, Inc. LightUp Edison Kit  
5-10yrs \$49.99**

[www.lightup.io](http://www.lightup.io)

Teaches kids how to explore their world with electronics and code. Kids can build exciting projects by snapping together magnetic circuit blocks, and use LightUp Learning app for interactive learning. The app helps kids when things don't work, and lets them see electricity flow. The Kit introduces key STEM



(Science, Technology, Engineering, Math) concepts, helping kids better understand technology. Kids can build fun projects, including a flashlight and SOS beeper. Upgrade to the Tesla Kit (\$99.99) to build more advanced projects and learn code. Founded by Josh Chan, a teacher, and Tarun Pondicherry, an electrical engineer, who met at Stanford while running educational workshops. They created a product to excite kids with the skills and concepts they need as scientists, engineers, and innovators of the future. BA

**13. OWI 14 in 1 Educational Solar Robot Kit  
10-12 yrs. \$31.95**

[www.owirobot.com](http://www.owirobot.com)

Solar powered robot offers STEM learning and it can be transformed into 14 different robot modes, which include a multitude of comical and functional movements. The user can easily change from a wagging-tail dog, running beetle, crab, and more.



Robot kit provides unique accessories and parts that make the robot move on land and water. With alternative energy so important there is no better time to start children learning basic concepts behind these

technologies. Fortunately, this product is powered by the sun, so no batteries are required. The robot moves in direct sunlight and allows children to create and use imagination. There are two levels in building the robot kit. Additional features include: adjustable polarity on solar panel to change direction of motor rotation; retractable robot head, which can be quickly stored in the upper body; the robot head can also be installed in the front, top or rear of the gearbox; with a transparent housing to see movements of the gears.

**14. Roominate Basic Roominate**  
**6-12 yrs. \$29.99**

[www.roominatetoy.com](http://www.roominatetoy.com)

Roominate is the do-it-yourself wired dollhouse building kit that gets girls excited about STEM. Through hands-on building and circuits, Roominate brings together creativity, engineering, and most importantly, fun. Roominate was designed by two female engineers set to inspire the next generation of female technology innovators. The Basic Roominate contains everything your daughter needs to build her own miniature room. Use building pieces to make beds, staircases, and much more. Wire up a windmill, elevator, or merry-go-round that actually works using the motor circuit. The wall and floor panels can be endlessly configured to build two-level structures, balconies, or backyards. BA



**15. Wild Republic Nature Tubes**  
**3-7 yrs. \$10.00**

[www.wildrepublic.com](http://www.wildrepublic.com)



Wild Republic Nature Tubes are designed to easily gather favorite collectible figurines. The new tubes have updated graphics for each theme including snakes, insects, aquatic animals, frogs, North American animals, big cats, dinosaurs, pirates, African animals, rainforest animals, farm animals, and more. In addition, the back of each tube's packaging becomes a handy 12 x 7 inch playmat. The reusable packaging is perfect for both storage and has convenient carrying case. ##

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Stevanne Auerbach, PhD/aka Dr. Toy® offers many play, learning, and toy suggestions from baby to older children in the new 4<sup>th</sup> edition of *Dr. Toy's Smart Play Smart Toys*, available in stores and online Amazon, Barnes and Noble, and Goodreads. The author of three books on toys, she evaluates toys and children's products on Dr. Toy's Guide [www.drtoy.com](http://www.drtoy.com) and for Dr. Toy's Best Gift Guide App. You can find more articles by Dr. Toy on The Huffington Post.

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