



TOYS

1. Standard Unit Blocks. Ages 3+; melissaanddoug.com; \$69.99
2. P'Kolino New Multi-Solution Souble Sided Bug Puzzle. Ages 18 mo—6 yrs; pkolino.com; \$19.99
3. Wooden Railway Set. Ages 3+; melissaanddoug.com; \$129.99
4. Magformers. Age 3+; target.com; \$40.99
5. K'Nex 35 Model Ultimate Building Set. Ages 7+; knex.com; \$24.99.
6. My First Circus. Ages 2-5; shop.lego.com; \$34.99
7. Gears! Gears! Gears! Beginner's Building Set. Ages 3+; learningresources.com; \$29.99

Look for toys that:

- ☑ Can be played with in a variety of ways
- ☑ Encourage thinking and doing while being creative
- ☑ Offer no solutions or are not limited by the solution(s) provided
- ☑ Allow opportunities to solve a problem for or meet the needs of people, animals, the community, the environment, etc.
- ☑ Inspire learning and questioning especially around topics related to science, technology, mathematics, and engineering
- ☑ Show the relationship between components; movements that make up a system



ENGINEERING GIFT GUIDE

Gift ideas that engage girls and boys in engineering thinking and design



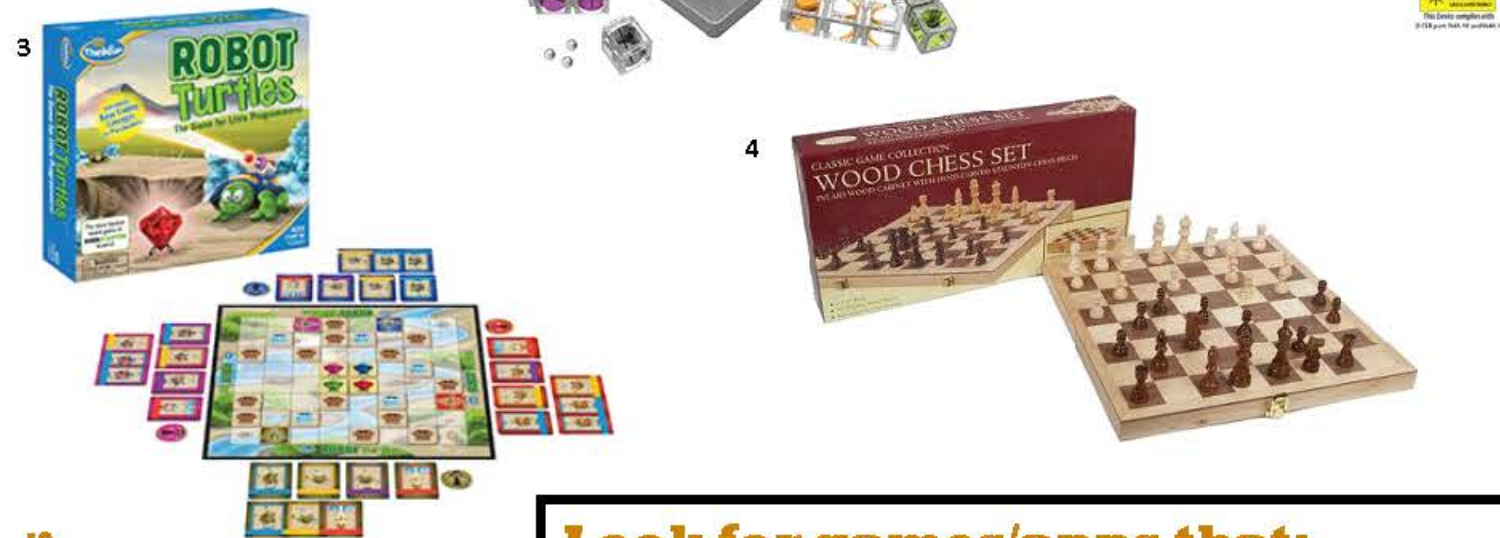
TOYS

1. littleBits: Base Kit. Ages 8+; littlebits.cc; \$99.00
2. Basic Roominate. Ages 6-12; roominatetoy.com; \$29.99
3. The Extraordinaires Design Studio Deluxe Edition Game, Aqua Blue. Ages 8+; amazon.com; \$39.99
4. Dado Squares. Ages 3+; fatbraintoy.com; \$22.95
5. Tangible Play Osmo. Ages 6+; playosmo.com; \$79.99
6. Goldie Blox and the Dunk Tank. Ages 4-9; goldieblox.com; \$19.99



GAMES

1. Gravity Maze. Ages 8+; thinkfun.com \$29.99
2. Laser Maze. Ages 8+; thinkfun.com \$29.99
3. Robot Turtle. Ages 4+; thinkfun.com \$25.00
4. Deluxe Wooden Chess Set. Ages 8+; target.com \$13.79

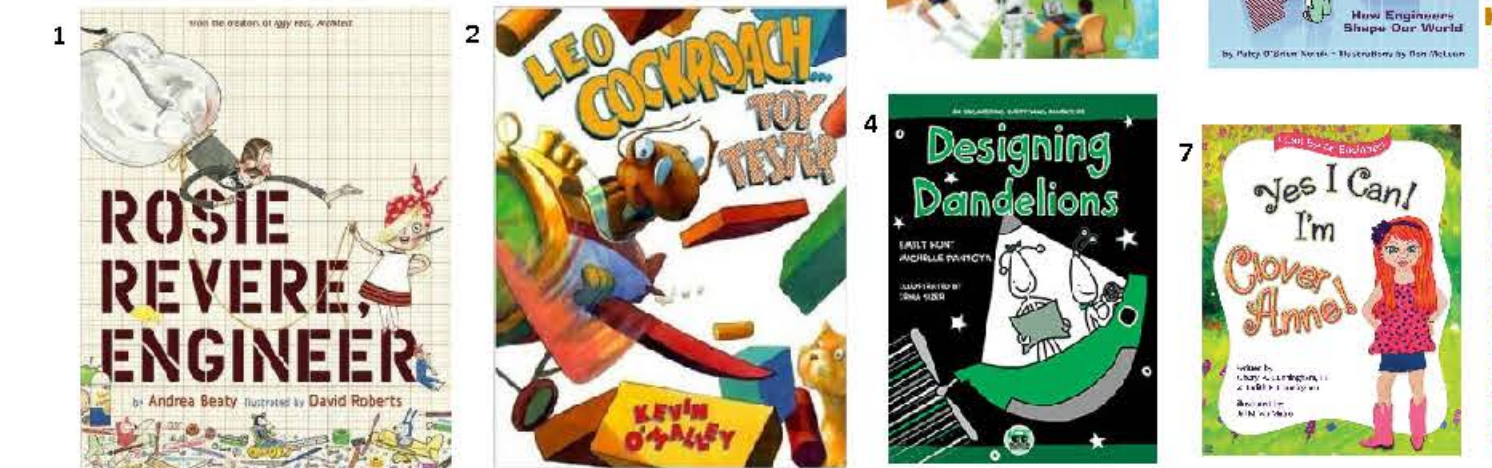


Look for games/apps that:

- ✓ Permit many ways to win or multiple solutions
- ✓ Engage players in problem solving
- ✓ Elicit the application of mathematics and science knowledge and skills
- ✓ Inspire creative solutions
- ✓ Encourage players to learn from failures and make improvements to win

BOOKS

1. Rosie Revere, Engineer by Andrea Beaty. Ages 5+; amazon.com \$10.70
2. Leo Cockroach...Toy Tester by Kevin O'Malley. Ages 5+; nsta.org/store \$21.95
3. If I Were an Engineer by American Society for Engineering Education. Ages 5-8; shop.egfi-k12.org \$7.95
4. Designing Dandelions by Emily Hunt and Michelle Pantoya. Ages 7-11; amazon.com \$10.21
5. Engineering Elephants by Emily Hunt. Ages 4-8; amazon.com \$15.29
6. Engineering the ABC's: How Engineers Shape Our World by Patty O'Brien Novak. Ages 4+; amazon.com \$10.15
7. Yes I Can! I'm Clover Anne! By Cheryl A. Cunningham, PE & Judith E. Cunningham. Ages 5-10; amazon.com \$8.03



Look for books/movies that:

- ✓ Have characters who solve a problem or meet a need (using an engineering design process)
- ✓ Introduce engineering in general or a specific field of engineering
- ✓ Show how the characters learn from their failures and use the information to make improvements to their design or process
- ✓ Contain characters with different genders, racial, and economic backgrounds
- ✓ Show characters working together as a team
- ✓ Have the characters apply mathematics and science knowledge and skills to create and evaluate their solutions
- ✓ Solve a problem for or meet the needs of people, animals, the community, the environment, etc.
- ✓ Introduce trade-offs and socio-technical issues

MOVIES

1. Letter Factory Adventures: Letter Machine Rescue Team. Ages 4-7; leapfrog.com \$14.98
2. Iron Man (2008, 2010, 2013). Rated PG-13; bestbuy.com \$9.99+
3. TinkerBell (2008). Rated G; bestbuy.com \$9.99+

