Maker Book Collection

Mid-Valley
STEM-CTE HUB

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Maker Book Collection

Unleash the power of imagination and hands-on creativity with Creative Makers: Imagination in Motion, a dynamic book kit that empowers young minds to invent, build, and play using everyday materials. Designed for budding engineers, artists, and tinkerers in grades 2nd-8th, this book collection combines the principles of sustainability, design thinking, and family collaboration.

Through cardboard castles, robotic hands, shadow puppet theaters, wearable art, and more, kids will explore the fundamentals of physics, engineering, storytelling, and artistic expression. Whether building solo, in peer groups, or alongside a parent or mentor, each project nurtures problem-solving, creativity, and confidence.

Inside this kit, readers will find:

- **Eco-friendly construction** and imaginative play using recycled cardboard (from Out of the Box and Cardboard Box Engineering)
- **Collaborative** tech builds and bonding projects that introduce electronics, coding, and hands-on skills (from Maker Dad)
- **Playful**, handcrafted toys that support early learning and open-ended exploration through music, pretend play, and tactile crafts (from Made to Play)

Grade Level	Educators of 2nd - 8th grades
Reading Level	Intermediate

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Contents of Kit

- **Out of the Box by Jemma Westing -** A DIY projects book for kids that uses recycling as a way to build creativity, imagination, and interactive play for kids aged 7-12. It features clear step-by-step instructions and detailed photographic explanations that will inspire imaginative minds.

- **Cardboard Box Engineering byJonathan Adolph -** Cardboard is everywhere! For creative kids aged 9 to 14, it's the perfect eco-friendly building material, and Cardboard Box Engineering is the perfect guide to get them started on inventive tinkering.

- **Maker Dad by Mark Frauenfelder -** Maker Dad is the first DIY book to use cutting-edge (and affordable) technology in appealing projects for fathers and daughters to do together. These crafts and gadgets are both rewarding to make and delightful to play with. What's more, Maker Dad teaches girls lifelong skills—like computer programming, musicality, and how to use basic hand tools—as well as how to be creative problem solvers.

- **Made To Play by Joel Henriques -** Delight young children and encourage play through unique handmade toys. From sewn and stuffed musical instruments to interlocking paper building blocks and wooden animal figurines, the projects in this book are meant to encourage open-ended play. Organized by kid-loving subjects, the toys here follow the themes of Zoo, House, Blocks, Cars & Trucks, Dress-Up, Music, and Art.

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Learning Extensions

STEAM Connections: Engineering - Math - Design

Learning Objectives:

- Understand basic principles of physical, life, and earth sciences through hands-on experimentation.
- Apply the scientific method: hypothesize, test, observe, and analyze results.
- Develop curiosity and confidence in exploring STEAM (Science, Technology, Engineering, Art, and Math) concepts independently.
- Foster creativity and innovation by using everyday materials for scientific exploration.
- Strengthen fine motor skills and hand-eye coordination through building and crafting.

Career Connections:

- **Scientist:** Exploring natural phenomena, conducting experiments, and analyzing outcomes.
- **Engineer:** Designing and building structures like paper rockets, motors, and water wheels.
- **Environmental Scientist:** Measuring wind/rainfall, creating ecosystems in a bottle, studying critters.
- **Inventor/Maker:** Creating unique solutions and imaginative projects from household materials.
- **Educator:** Using experiments to teach and inspire others in science learning environments.

Essential Employability Skills:

- Critical Thinking & Problem Solving
- Initiative & Self-Direction
- Creativity & Innovation
- Communication
- Collaboration
- Technical Literacy

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Resources and Accessibility

Safety Guidelines

- **Avoid Food and Drinks Near Books -** Encourage clean, dry reading areas to prevent spills, stains, or water damage.
- **Handle Books Gently -** Model how to turn pages carefully, avoid bending spines, and store books upright or flat.
- **Use Clean Hands -** Have students wash or sanitize hands before handling shared books to keep materials in good condition.
- **Designate a Safe Storage Spot -** Store books in a sturdy, dry, and clearly labeled bin or tote to protect them from wear and tear between uses.

Accessibility

- **Use Book Stands or Holders -** Provide angled book holders or clipboards to support independent reading for students with mobility or motor challenges.
- **Pair Audio with Print -** Use audiobooks or teacher-read recordings when available to support students with reading disabilities or visual impairments.
- **Incorporate Read-Alouds and Peer Reading -** Offer opportunities for shared or buddy reading to help students who benefit from auditory learning or support with decoding.
- **Offer Visual Aids and Discussion Prompts -** Supplement books with images, models, or key vocabulary cards to reinforce understanding and engagement.

Library Catalog

Library Resources

Feedback

QR to feedback survey