How Things Work

"What's Inside? Toys, A First Guide to the Wonders and Workings of Favorite Toys"
published by Dorling Kindersley

This book is designed to help children understand how some familiar toys work. The cut-away photos allow the children to see inside the toys, and the simple text describes the parts of the toys and what their functions are.

The activities we did included: using tools to take apart some old toys and explore the insides; using tools to take apart some old electronic equipment such as a mixer, telephones and CD players; folding and flying paper airplanes, and discussing how they work; guessing what is inside an enclosed cardboard tube by shaking it and listening to the sound it makes; creating a teddy bear with movable arms and legs; and exploring different toys with springs such as a slinky, a pinball game and silly glasses.

How Do You Lift A Lion
by Robert E. Wells

This book addresses the topic of simple machines in a fun and instructive way by posing problems such as "How do you deliver a basket of bananas to a baboon birthday party?" and providing answers with pictures and brief, age-appropriate explanations of the concepts. The basket is heavy and the baboons are high up in a tree, so using a pulley system works very well to solve the problem!

Some of the activities that the children enjoyed were: practicing using a lever (seesaw) to lift each other; learning about friction by experimenting with moving a hockey puck on different types of services; using spoons as catapults (levers) to see how far we could fling mini-marshmallows; making a wheel and axle work better by lubricating it; pulling heavy loads with and without wheels; lifting buckets of rocks with a pulley; wheel and fulcrum scavenger hunts; and painting with a rolling marble.
One Wheel Wobbles
by Carol Lexa Schaefer

It’s a family parade to the Amusement Park, and here come Mama, Grampa, Sister, and the rest, rolling along on wheels of every sort – from wobbly and sparkly to lickety-split and jiggly. The fun-loving family rolls along on their interesting kinds of transportation with an ever-increasing number of wheels.

The activities were all about wheels and axles this week: having wheel barrow races; making colorful spinners; working in play dough with rolling pins and pizza cutters; tasting amusement park type foods such as corn dogs; building pinwheels; playing with cars and trucks; and repairing some of our wooden cars in the Woodworking Center Fix-It Shop.

Up Goes The Skyscraper
by Gail Gibbons.

This story takes us through the building of a skyscraper from the first plans of the architects to the final phase of moving in the furniture. Many, many machines are needed for this process: architect’s tools for planning the structure; construction vehicles for digging the foundation; cranes with pulleys for lifting the heavy I-beams; power tools, hand tools and hardware for securing parts; hoists for bringing up materials and workers for the upper levels; tools for the electricians, carpenters, plumbers and heating and cooling specialists; and paint brushes and finishing tools for the final touches.

The activities focused on building and the machines that help get them built, and included: building with the architecture blocks (large, connecting panels for creating structures the children can go into); looking at some time-lapsed videos of real skyscrapers being built; earning how to create secure structures with the No Ends building pieces (connecting long, straight pieces with joints); pretending to be architects by sketching plans for our own skyscrapers; using rulers to help make straight lines; painting our sketched building plans; creating graham cracker houses; and stacking paper cups to make all sorts of structures.
Enjoy the photos from our activities and adventures!

Mrs. Bird, Miss Furman, Ms. McMichael

Mrs. Opferman, and Mrs. Tomer