

# Simple Machines



Thank you for your interest in this **The Ruff Ruffman Show** Ready to Learn backpack. The education team at Iowa PBS is excited that you have chosen to enrich your child's learning.

## Contents

**8 Books:** Set of six *Making Machines* books by Chris Oxlade  
*Simple Machines* by D.J. Ward  
*How Machines Work: Zoo Break* by David Macaulay

**Activities:** Target Practice, Pinball Wizard

**Materials:** STEM Learning Resource Simple Machines activity set featuring pulleys, ramps, wedges, wheels and axles, springs and screws, and vocabulary cards

## Read Together

Asking your child questions as you read helps them think about the story and encourages them to ask their own questions. Here are some sample questions to ask your child as you read *Simple Machines* by D.J. Ward.

- There are 6 simple machines listed in the book. Look around the house to find examples of each.
- The lever is used in baseball. What other activities use the force of a lever (softball, golf, kicking a ball)?
- How could a pulley help get a person out of bed in the morning, or how could a pulley help that person make the bed in the morning?
- Take a look at the ramps in your neighborhood. Discuss how these ramps are useful.

## Play Together

Playing with your child can be fun for them and for you, and asking questions will help your child learn.

- The STEM simple machines activity set provides the opportunity to engineer, explore and discover how to make work easier. Experiment with the kit's pulley, wedge, Archimedes' screw, wheels and axel, lever, and inclined plane.
- How does a teeter totter/seesaw work? How can two different sized people be successful on the teeter totter/seesaw? Make one for your toys.
- Create a mini pinball machine that can shoot a marble and send it zigzagging down an obstacle course.
- Design a catapult out of marshmallows and sticks. How far can you launch a marshmallow? Engineer versions to send the marshmallow higher or farther.
- What types of simple machines are used in each of these activities?

## Online Activities

Go to [iowapbs.org/education/story/36383/science-resources-and-activities-ages-4-8](http://iowapbs.org/education/story/36383/science-resources-and-activities-ages-4-8) to watch **Young Explorers: Get Up & Go Play: Simple Machines**, **The Cat in the Hat Knows a Lot About That: Pulling Together** and the Simple Machines interactive.

For more information about Iowa PBS Education, visit our website at [iowapbs.org/education](http://iowapbs.org/education). More PBS educational content can be found at [pbskids.org](http://pbskids.org).