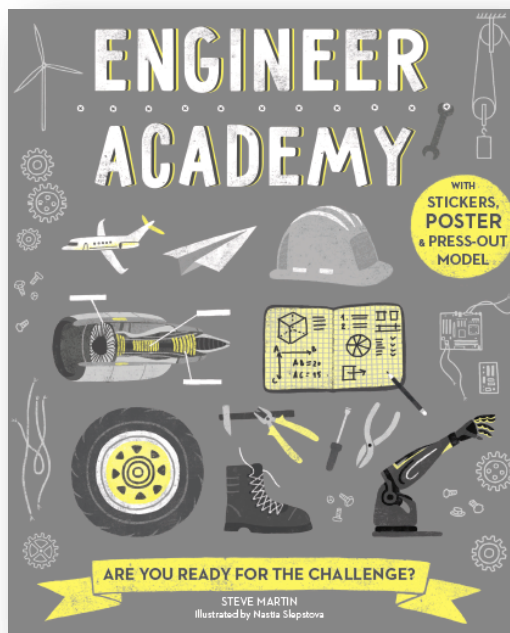


ENGINEER ACADEMY

Steve Martin * Nastia Sleptsova

Activity | 978-1-61067-546-8 | Ages 7+ | Paperback | 7 ¾ x 9 ½ | 64 pp | \$12.99 | LOC: 2016934250

There are so many different types of engineer you could be, why not try them all?



- Working with jet engines, robots, race cars, space stations and more!
- Fun activities teach practical skills.
- Great for STEM classrooms.
- Stickers, poster, model and game included.

MECHANICAL ENGINEER

MACHINES: LEVERS

Mechanical engineers work with machines. A machine is a device that makes work easier. It does this by increasing the effect of our efforts. One of the simplest machines is the lever. By using a lever, you can lift heavy weights with less effort.

A seesaw is a type of lever. Look at these pictures. The two boys are heavier than the girl, so they move down. But when the boys move closer to the balancing point in the center (called the "fulcrum"), the boys and the girl are balanced. Because the girl is farther from the fulcrum, she can lift a weight much heavier than herself.

We use levers in a lot of places, including some that aren't that obvious!

EXPERIMENT WITH LEVERS

You will be examining how a light weight can lift and balance heavier weights when we move the fulcrum.

You will need: a ruler, something to balance it on (a hardback book is perfect), 9 pennies

1. Balance the ruler on the book with a penny on each end. It looks just like a seesaw.
2. Now put two pennies on one end and slide the ruler along until it balances. Make a note of where the top of the book is, using the inch marks on the ruler. Write this measurement down in the table.
3. Do the same with four, six and eight pennies.

	DISTANCE (INCHES)
2 PENNIES	
4 PENNIES	
6 PENNIES	
8 PENNIES	

Once you have completed the table, place your sticker here.

PLACE STICKER HERE

TASK COMPLETE