

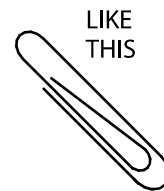
# GRAVITY ON OTHER PLANETS

Anywhere you go you will still be you, but you will feel very different on other planets. On some planets you will be very light, while on others you will be so heavy you might not be able to stand up.

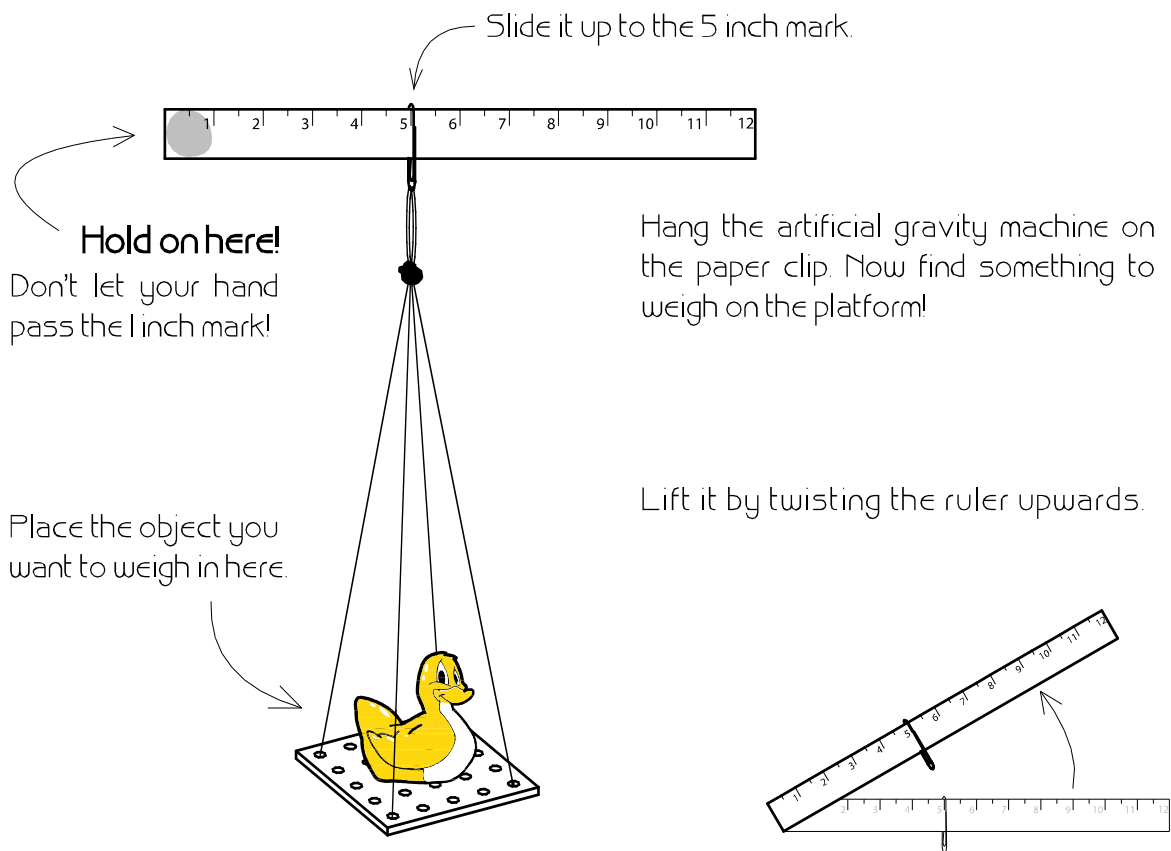
How would you feel on the moon, or on Jupiter? How much could you lift? How high could you jump?

## GRAVITY LEVER

**WHAT YOU NEED:** a ruler, a large paper clip, and the artificial gravity machine you built in lesson 7.



**WHAT TO DO:** Bend a paper clip so it can stay on the ruler.



This is how it feels to lift the object on Earth. What would it be like on other planets? Just move the paper clip! See the next page for a table that explains how!

The most interesting to try are Jupiter, which has the strongest gravity, and the moon, where people have actually visited.

Try the moon, and then try Jupiter. How did they feel?

**Moon:** \_\_\_\_\_

**Jupiter:** \_\_\_\_\_

PLANET	GRAVITY compared to EARTH	HANG OBJECT FROM:
MERCURY	38 %	2 1/2 inches
VENUS	90 %	4 1/2 inches
EARTH	100 %	5 inches
moon	16 %	1 1/2 inches
MARS	38 %	2 1/2 inches
JUPITER	264 %	11 1/2 inches
SATURN	93 %	4 1/2 inches
URANUS	79 %	4 inches
NEPTUNE	112 %	5 1/2 inches
PLUTO	4 %	too small

This means if you weigh 100 pounds on earth, you would weigh 264 pounds on Jupiter, but only 4 pounds on Pluto!

**JUMPING JUPITER?** Forget about jumping on Jupiter, because you would weigh nearly 3 times as much as you do now! It would be like jumping with two little brothers or sisters riding on your back.

**MOON JUMPING?** Easy! You could jump 6 times as high on the moon as you can now. So how high is that? Let's find out.

Measure how high you can jump on the Earth. Don't include your own height, just the jump height (how much you actually go up). Then multiply your jump by six. That's how high you could jump on the moon. Try it! What did you get?



**Earth Jump Height**

**Moon Jump Height**

\_\_\_\_\_ inches    x 6 =    \_\_\_\_\_ inches