

Name:

Date:

SCIENCE > MOTIONS, FORCES, AND TIME > NEWTON'S LAWS OF MOTION

Y-CHART Describe your own examples of Newton's laws of motion at work.

Example:

.....
.....
.....
.....

FIRST LAW

Unless otherwise acted upon, an object in motion stays in motion; an object at rest stays at rest.

SECOND LAW

An object will accelerate in the direction of a force acting on it.

Example:

.....
.....
.....
.....
.....
.....
.....
.....
.....
.....

THIRD LAW

Forces always occur in equal and opposite pairs.

Example:

.....
.....
.....
.....
.....
.....
.....
.....
.....
.....

CATEGORIZE IT

Label each statement "1," "2," or "3" for the law of motion it illustrates.

..... Pushing a baby on a swing is easier than pushing an adult on the same swing.

..... Water spills from a glass carried by someone who is walking steadily and suddenly stops short.

..... When thrown with the same force, a soccer ball accelerates more than a bowling ball.

..... A magician pulls a tablecloth out from under a dish on a table without disturbing the dish.

..... A rocket launches into space, pushing fuel exhaust in one direction and the rocket in the opposite direction.

..... A book rests on top of a shelf and does not move until a student accidentally knocks it off.

THINK ABOUT IT

You exert the same force on two objects of different masses. Which object will have the greater acceleration? Explain your answer.

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....