

These are examples of which Newton's Laws?

- 1. A magician pulls a tablecloth out from under dishes and glasses on a table without disturbing them.**

How do you know?

- 2. Rockets are launched into space using jet propulsion where exhaust accelerates out from the rocket and the rocket accelerates in an opposite direction.**

How do you know?

- 3. A person not wearing a seatbelt flies through a car window when someone slams on the breaks because the person's body wants to remain in continuous motion even when the car stops.**

How do you know?

- 4. A soccer ball accelerates more than a bowling ball when thrown with the same force.**

How do you know?

- 5. A student leaves a pencil on a desk and the pencil stays in the same spot until another student picks it up.**

How do you know?

- 6. Two students are in a baseball game. The first student hits a ball very hard and it has a greater acceleration than the second student who taps the ball lightly.**

How do you know?

Some Experiments

- 1. At your table, put a piece of paper under a book and a piece of paper under a penny. If you try to pull out the paper quickly, do you think the book or the penny will move more? Why do you think that?**

Which one moved more? Were you right or wrong?

What Newton's Law is this an example of? How do you know?

- 2. You are going to drop a piece of paper and book. What forces will act on these things when they fall? Which will hit the ground first?**

Now put the paper on top of the book and drop them together. What do you think will happen?

Now make the paper into a small ball and drop it at the same time as the book. What do you think will happen?

What conclusions can you make from this experiment?

What Newton's Law is this an example of? How do you know?