

Mass, Force, & Distance Traveled

#	TERM	DEFINITION
1	MASS	The amount of matter in an object
2	FORCE	A push or pull.

Two factors affect Distance Traveled
M A S S & F O R C E

How do they affect Movement?

MASS	Start With EQUAL Force	Stop With EQUAL Force	Example
↓ Less	EASIER to start Takes LESS force	EASIER to stop Takes LESS force	A Tennis ball is easy to throw & catch
↑ More	HARDER to start Takes MORE force	HARDER to stop Takes MORE force	A Bowling ball is much harder to throw & catch



Brakes Applied

SMALLER Car takes a SHORTER distance to stop



Brakes Applied

LARGER Car has requires more force to stop so it takes a LONGER distance to stop



GREATER
Distance
Traveled



Equal Force
SMALLER object





LESS
Distance
Traveled



Equal Force
LARGER object



FORCE	Start With EQUAL Mass	Stop With EQUAL Mass	Example
 More	MORE distance traveled	QUICKER stop SHORTER distance	Throw a ball with a lot of force goes farther & harder to catch
 Less	LESS distance traveled	HARDER stop LONGER distance	Throw a ball lightly will not go as far & is easy to catch



Peddle fast & hard & then stop & coast... you will travel farther



Peddle slow & soft & then stop & coast... you will travel less far



Apply a LITTLE brake... you will take longer to stop & travel FARTHER



Apply a LOT of brake... you will stop QUICKER & at a SHORTER distance

