

## Momentum:

Momentum: Tells us how hard it is to slow down/stop an object.  
Tells us how much force an object can exert in a collision.

Momentum = mass \* velocity

$$\begin{array}{c} p \\ \downarrow \\ \text{kg} \cdot \text{m} \\ \hline \text{s} \end{array} = \begin{array}{c} m \quad v \\ \downarrow \quad \downarrow \\ \text{kg} \quad \text{m/s} \end{array} \quad (\text{units})$$

## Transfer of momentum:

- In any collision, momentum can be transferred from one object to another
- In many cases, the total momentum of the objects colliding stays the same (or close to the same) —  
Law of Conservation of Momentum  
(So sometimes, we can predict how things will move after a collision!)

TODAY:

Find 3 different videos (appropriate)

Copy/paste URL

Describe what's happening in terms of momentum

- Definition →
1. How hard would it be to stop/slow down?  
How much force will be created?
  2.  $p = m \cdot v$  (which is large, which is small?)
  3. Where/when is momentum being transferred? Describe how.