

Collisions – Master Materials and Equipment

Equipment by Activity

NOTE: *Italicized entries indicate items not available from PASCO. The quantity indicated is per student or group.*

Act	Title	Materials and Equipment	Qty
1	Momentum Measure and compare the change of momentum of an object during an elastic and an inelastic collision.	Data collection system Motion sensor Dynamics track Dynamics cart Pivot clamp Force accessory bracket with bumpers and clay Rod stand Balance, 2000 g capacity (1 per class)	1 1 1 1 1 1 1 1
2	Peak Force Observe the magnitude and the consistency of the force required to cause structural failure	Data collection system Force sensor <i>Ruler</i> <i>Long pasta</i> <i>Marker</i>	1 1 1 3 1
3	Area Under a Curve An introduction to the use of rectangular approximations to find the area under a curve, and to associating physical meaning to the area under a curve.	<i>Ruler</i> <i>Pencil</i>	1 1
4	Impulse Momentum Compare the change of momentum before and after a collision to the force experienced during the collision (impulse).	Data collection system Force sensor Motion sensor Force accessory bracket with bumpers and clay Dynamics cart Dynamics track Pivot clamp Rod stand	1 1 1 1 1 1 1 1