**Vocabulary:** **Air Track**





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* Air track – a triangular track that is perforated with holes that emit air.
	+ One or more gliders can float on a cushion of air as they move over the air track.
	+ An air track is used to study motion with minimal friction.
* Approach velocity – the rate at which two objects are approaching one another.
	+ For objects moving on the same track, the approach velocity is equal to the difference in the objects’ *velocities:* *approach velocity* = *v*1 – *v*2.
* Conservation of energy – the principle that the total energy in a closed system remains constant.
* Conservation of momentum – the principle that the total *momentum* in a closed system remains constant.
* Elasticity – a measure of how much *kinetic energy* is preserved in a collision.
	+ The symbol for elasticity is *k*.
* Kinetic energy – energy of motion.
	+ Kinetic energy is represented by the symbol *KE* or simply *K*.
	+ The formula for kinetic energy is *KE* = *mv*2 / 2.
* Momentum – a measure of how difficult it is to stop a moving object.
	+ Momentum is represented by the symbol *p*.
	+ Momentum is the product of an object’s mass and velocity: *p* = *mv*.
	+ If mass is measured in kilograms (kg) and velocity is measured in meters per second (m/s), the units of momentum are kilograms-meters per second (kg•m/s).
* Separation velocity – the rate at which two objects are moving away from one another.
	+ For objects moving on the same track, the separation velocity is equal to the difference in the object’s velocities: *separation velocity* = *v*2 – *v*1.
* Velocity – the speed and direction of a moving object.
	+ Motion to the right is considered positive and motion to the left is negative.