**Vocabulary:** **Inclined Plane – Sliding Objects**



**Vocabulary**

* Acceleration - the change in *velocity* per unit time.
	+ Acceleration is calculated by dividing the change in velocity by the elapsed time: *a* = ∆*v* / ∆*t*.
* Coefficient of friction – the ratio of the force of *friction* between two bodies to the force pressing the bodies together.
	+ The greater the coefficient of friction is, the greater the resistance to motion.
	+ The symbol for coefficient of friction is *μ*.
* Conservation of energy – the principle that the total energy in a closed system remains constant.
* Friction – a force that opposes motion.
	+ Friction arises because of contact between a moving object and the materials it is moving over or through.
	+ The friction between two objects is given by the coefficient of friction.
* Gravitational potential energy – *potential energy* that depends on an object’s position within a gravitational field such as that exerted by Earth.
	+ Gravitational potential energy is represented by several symbols: *GPE*, *PE*, or *U*.
	+ On Earth, an object’s gravitational potential energy depends on the object’s weight and height above Earth’s surface.
	+ The formula for gravitational potential energy is *GPE* = *wh* or *GPE* = *mgh.*
* Inclined plane – a slanted surface, such as a ramp, along which objects can be moved to a different height.
* 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.
* Potential energy – the energy an object has because of its position or shape.
	+ Potential energy that is dependent on an object’s position above Earth is known as gravitational potential energy.
	+ Potential energy that is dependent on an object’s shape (such as a stretched rubber band) is known as *elastic potential energy*.
* Velocity – the speed and direction of a moving object.