Particle vocabulary: Concept, Calculate, Context

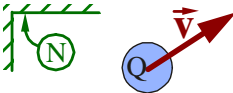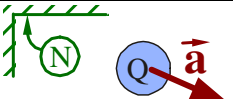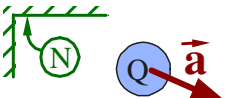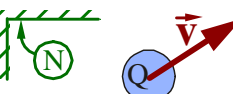| Word	Picture	Symbol & Definition	Relationship to Force/Moment	When useful
Mass		m_Q or m^Q Standard 1 kg mass. Avagadro's number.	$F^Q = m^Q \, {}^N a^Q$	Statics, dynamics, gravity, momentum, energy, inertia,
Center of mass		Scm	$F^S = m^S \, {}^N a^{Scm}$	Statics, dynamics, gravity, momentum, energy, inertia,
Kinetic Energy				Conservation of energy, work/energy principle, power/energy-rate principle, Lagrange mechanics.
Translational Momentum				Collisions and explosions. Conservation of translational momentum. Translational momentum principle.
Angular Momentum (moment of momentum)				Collisions and explosions. Conservation of angular momentum. Angular momentum principle.
Advanced Dynamics				
Effective Force				D'Alembert and Kane mechanics. Relationship to translational momentum.
Moment of Effective Force				D'Alembert's and Kane mechanics. Relationship to angular momentum.
Generalized Effective Force				Kane's mechanics. Relationship to Lagrange mechanics.
Generalized Momentum				Collisions and explosions. Lagrange and Kane impact mechanics.