8th Grade Science Unit 3: Motion (S8P3.a, b, c) Proficiency Sheet **S8P3. Obtain, evaluate, and communicate information about cause and effect relationships between force, mass, and the motion of objects.**		
Lessons	**Learning Target / Activity**	**Achievement Level Descriptors**
	S8P3.a Analyze and interpret data to identify patterns in the relationships between speed and distance, and velocity and acceleration.	**Beginning:** I can recognize patterns in the relationships between speed and distance, and velocity and acceleration.
		Developing: I can use provided data to describe patterns in the relationships between speed and distance, and velocity and acceleration.
		Proficient: I can analyze and interpret data to identify patterns in the relationships between speed and distance, and velocity and acceleration.
		Distinguished: I can construct arguments supported by evidence related to the patterns in the relationships between speed and distance, and velocity and acceleration.
	S8P3.b Construct an explanation using Newton's Laws of Motion to describe the effects of balanced and unbalanced forces on the motion of an object.	**Beginning:** I can describe the effects of balanced and unbalanced forces as they relate to the motion of an object and Newton's Laws of Motion.
		Developing: I can construct a simple explanation that predicts the effects of balanced and unbalanced forces as they relate to the motion of an object and Newton's Laws of Motion.
		Proficient: I can construct an explanation using Newton's Laws of Motion to describe the effects of balanced and unbalanced forces on the motion of an object.
		Distinguished: I can compare and evaluate examples of Newton's Laws of Motion to describe the effects of balanced and unbalanced forces on the motion of an object.

	S8P3.c Construct an argument from evidence to support the claim that the amount of force needed to accelerate an object is proportional to its mass (inertia).	**Beginning:** I can recognize that the amount of force needed to accelerate an object is proportional to its mass (inertia).
		Developing: I can construct a limited argument based on observational evidence to support the claim that the amount of force needed to accelerate an object is proportional to its mass (inertia).
		Proficient: I can construct an argument from evidence to support the claim that the amount of force needed to accelerate an object is proportional to its mass (inertia).
		Distinguished: I can evaluate graphical displays to provide evidence in support of the claim that the amount of force needed to accelerate an object is proportional to its mass (inertia).

Vocabulary

Mass Speed Velocity Acceleration Displacement Balanced forces Unbalanced forces Newton's Laws Inertia

Graph Your Grade

100										
90										
80										
70										
60										
50										

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