

Problem: How do I build a car powered only with a mouse trap?

EF&M Standard 1	I can use tables and graphs to determine what affects kinetic and potential energy	Before unit confidence	Assessment score
Knowledge "What you need to know"	Define or identify the Key Terms Energy, Kinetic energy, Potential Energy, Energy Transfer, Energy Transformation, Law of Conservation of Energy, Speed,	Yes I can do all of this	4
		Yes, but... not all the details	3.7
Performance "What you need to do with what you know"	Explain, Describe, Apply, Predict, Evaluate etc... Measure speed of an object in motion Explain what energy is Define kinetic energy and explain the factors that affect it Explain potential energy and what the factors that affect affects it. Describe the the relationship between energy and work	Yes, but... some I can't do	3.4
		Not yet, but... I can do some	3
		Not yet I've heard of it, but know little to none	2.6
		Never heard of this	No evidence 2

EF&M Standard 2	I can determine what causes objects to speed up, slow down, or change direction	Before unit confidence	Assessment score
Knowledge "What you need to know"	Define or identify the Key Terms Motion, Force, Mass, Acceleration, Reference Frame, Net force, Velocity, Newtons, Newton's First and Second Law, Unbalanced Forces, Inertia	Yes I can do all of this	4
		Yes, but... not all the details	3.7
Performance "What you need to do with what you know"	Explain, Describe, Apply, Predict, Evaluate etc... Describe the motion of an object and tell what influences the description Utilize force diagrams to model forces acting on objects Describe the relationship between mass, force and acceleration Explain the how forces affect energy Use evidence to explain why an objects motion changes Explain the difference between action-reaction force pairs and single object motion Describe how propellers cause motion	Yes, but... some I can't do	3.4
		Not yet, but... I can do some	3
		Not yet I've heard of it, but know little to none	2.6
		Never heard of this	No evidence 2

EF&M Standard 3	I can describe the factors that affect non-contact forces	Before unit confidence	Assessment score
Knowledge "What you need to know"	Define or identify The Key Terms Magnetic field, Electrostatic field, Attraction, Repulsion	Yes I can do all of this	4
		Yes, but... not all the details	3.7
Performance "What you need to do with what you know"	Explain, Describe, Apply, Predict, Evaluate etc... Describe a magnetic and electrostatic field Differentiate between the types of non-contact forces Describe the factors that affect non-contact forces	Yes, but... some I can't do	3.4
		Not yet, but... I can do some	3
		Not yet I've heard of it, but know little to none	2.6
		Never heard of this	No evidence 2

Problem:

EF&M: Standard 1

Topic	Kintic and Potential energy
Anchor	Car rolls down a ramp and drop racket balls
Causal Explanation	
What students should know	

EF&M: Standard 2

Topic	What causes changes in moiton and direction
Anchor	Draw what happens to energy and forces when a car acceleraates and then comes to a stop
Causal Explanation	
What students should know	

EF&M: Standard 3

Topic	How do you affect non-contact forces
Anchor	Draw how a magnet controls them motion of another magent
Causal Explanation	
What students should know	