KINETIC AND POTENTIAL ENERGY WORKSHEET ANSWER KEY pdf

1: Kinetic and Potential Energy Worksheet Answers â€“ www.enganchecubano.com

Kinetic And Potential Enery Answer Key. Showing top 8 worksheets in the category - Kinetic And Potential Enery Answer Key. Some of the worksheets displayed are Name period date,, Kinetic and potential energy work, Physics conservation of energy work solutions, Energy f e, Potential and kinetic energy, Kinetic energy work, 8th grade science energy unit information.

Forced Choice Questions 1. Which of the following statements are true about work? Include all that apply. Work is a form of energy. A Watt is the standard metric unit of work. Units of work would be equivalent to a Newton times a meter. Work is a time-based quantity; it is dependent upon how fast a force displaces an object. Superman applies a force on a truck to prevent it from moving down a hill. This is an example of work being done. An upward force is applied to a bucket as it is carried 20 m across the yard. A force is applied by a chain to a roller coaster car to carry it up the hill of the first drop of the Shockwave ride. The force of friction acts upon a softball player as she makes a headfirst dive into third base. An eraser is tied to a string; a person holds the string and applies a tension force as the eraser is moved in a circle at constant speed. A force acts upon an object to push the object along a surface at constant speed. By itself, this force must NOT be doing any work upon the object. A force acts upon an object at a degree angle to the direction that it is moving. This force is doing negative work upon the object. An individual force does NOT do positive work upon an object if the object is moving at constant speed. An object is moving to the right. A force acts leftward upon it. This force is doing negative work. A non-conservative force is doing work on an object; it is the only force doing work. Therefore, the object will either gain or lose mechanical energy. TRUE - Work is a form of energy, and in fact it has units of energy. FALSE - Work is not dependent on how rapidly the force displaces an object; power is time-based and calculated by force multiplied by speed. FALSE - Since Superman does not cause a displacement, no work is done; he is merely holding the car to prevent its descent down the hill. TRUE - There is a component of force in the direction of displacement and so this is an example of work. TRUE - There is a force and a displacement; the force acts in the opposite direction as the displacement and so this force does negative work. FALSE - For uniform circular motion, the force acts perpendicular to the direction of the motion and so the force never does any work upon the object. FALSE - If a force acts at a degree angle to the direction of motion, then the force does not do any work at all. Negative work is done when there is a component of force opposite the direction of motion. FALSE - There are many instances in which an individual force does positive work and yet the object maintains a constant speed. Consider a force applied to lift an object at constant speed. The force does positive work. Consider a car moving at constant speed along a level surface. The force of the road on the tires does positive work while air resistance does and equal amount of negative work. TRUE - A force which acts in a direction opposite the motion of an object will do negative work. TRUE - When non-conservative forces do work upon an object, the object will either gain or lose mechanical energy. Mechanical energy is conserved neither gained nor lost only when conservative forces do work upon objects.

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2: ~ Sickunbelievable

kinetic energy is stored energy that has the capacity to do work, and potential energy is the energy of motion. kinetic energy is energy that an object possesses as a result of its location, and potential is the same as heat energy.

This lesson is designed to lay out the difference between potential and kinetic energy, and then expose students to the experience of actually calculating quantities of kinetic and potential energy. The students will then be able to compare the scale of various sources of energy. Both contain liquid raised to an elevated position. Released from that position, the liquid could do work. The lake is kilometers long and contains a little more than 35 cubic kilometers of water. From the surface of the lake on one side of the dam to the bottom of the dry canyon on the other is a drop of about meters. The beaker of water here in the classroom has been raised about two meters or whatever in that frame of reference. It contains grams, or a trifle more than a third of a kilogram of liquid. Potential energy can be converted to other forms of energy, especially kinetic energy. Next, pose this question: Kinetic, in fact, comes from the Greek word for motion. The water in our first example will have kinetic energy if set in motion because of gravity. Distribute copies of the Kinetic vs. Lead a discussion of each item: Make the following point: Both potential and kinetic energy require a frame of referenceâ€"things are relative, in other words. For potential energy this is obvious. The water behind Hoover Dam has potential energy in the frame of reference of the generator turbines below the dam. Above the dam, the water represents no potential energy. To a car going down a highway, a crate that has fallen off a truck and is now lying in the road possesses kinetic energy. Since motion is relative, the car may as well be at rest with the crate and road rushing at it. But to someone standing off the side of the road, the crate has no kinetic energy at all. Various ways of measuring energy have been in use since humanity began harnessing energy at the start of the Industrial Revolution. The first and still most popular is the horsepower, dating to It was based on the observation that a horse harnessed to a treadmill could raise 33, pounds to a height of one foot in one minute. Today we use a much smaller measure of energy, called the joule pronounced jewel, as in diamond or ruby named for English physicist James Prescott Joule In other words, it measures energy in terms of mass times distance moved times the force of the acceleration behind the movement. Remember, the joule represents mass times distance times acceleration. In this situation we have the three data points we need: Mass is a measure of the amount of H20 in the beaker. In this case we will raise it about a foot, or about a third of a meter. The acceleration is the acceleration of gravity, since the mass is going to be falling. The answer is 1 joule. In the case of our glass of water, we invested the muscle energy needed to raise it to that height. With Hoover Dam, the climate provided the energy needed to deposit snow on the slopes of the Rocky Mountains, which later melted, ran downstream, collected behind Hoover Dam, and formed Lake Mead. They should try to complete the act in one second. The overall capacity is about 2 billon watts. In other words, a watt light bulb shining for one second consumes joules. The metabolism of an average person is also about equivalent to a watt light bulb, or joules per second. The storage capacity of one AA alkaline nonrechargeable battery is usually rated brand new at about 2. That is the same as about 9, watt-seconds, or 9, joules. One standard horsepower exerted for one second is joules. Modern tests show that is actually a little more than the average horse can maintain. A person can maintain a sustained effort of about one-tenth horsepower. The solar radiation reaching the Earth amounts to 1, joules per square meter per second. But the efficiency of typical solar power generators is only about 10 percent. The combustion energy in one liter of octane gasoline is 32 million joules per liter or Pouring it from a height of 30 centimeters happens to produce a velocity of 2. The formula to derive the velocity of an object after it has fallen a certain distance is the square root of twice the acceleration of gravity times the distance fallen. Again, the mass was grams. The battery power sources are shown for comparison. They cannot release all their energy quickly short of exploding. This may help explain why electric cars have been slow to catch on, and why researchers are constantly seeking batteries with more energy density. The lithium ion and car batteries are rechargeable, unlike gasoline, which is combustible. Assume you have built a reservoir on a hill meters above a river. It is exactly the size of a football field 6, square meters and is ten meters deep. Given that a cubic meter of water weighs about 1, kilograms one metric

ton, or tonne , what is the potential energy of the contents of the reservoir, if the water is piped down to a generator turbine at the banks of the river? A joule is the same as a watt-second. Assuming percent efficiency, what would be your revenue? Video playback may not work on all devices.

3: Work and Energy Review - with Answers

KINETIC AND POTENTIAL ENERGY WORKSHEET Name: Determine whether the objects in the following problems have kinetic or potential energy. Then choose the.

4: Kinetic and Potential Energy Problem Set

Kinetic. Showing top 8 worksheets in the category - Kinetic. Some of the worksheets displayed are Kinetic energy work, Kinetic molecular theory work key, Kinetics work, Work kinetic and potential energy problems, Name period date, Kinetic and potential energy work, Kinetic and potential energy work, Kinetic theory packet.

5: 21 Kinetic and Potential Energy Worksheet Answer Key - Semesprit Worksheet

Kinetic/Potential Energy Answer Key. Instructions: Read each question carefully. Choose the answer that best fits the question. Short answer response questions must be responded to in complete sentences.

6: Kinetic And Potential Enery Answer Key Worksheets - Printable Worksheets

KINETIC AND POTENTIAL ENERGY WORKSHEET Name:_____ Determine whether the objects in the following problems have kinetic or potential www.enganchecubano.com choose the correct formula to use: KE = 1/2 m v2 OR PE = mgh = Fwh 1.

7: Kinetic vs Potential Energy?

Above is an example of how this center could be utilized. I cut out the Kinetic and Potential Energy mats and glued them in-side a color file folder.

8: Kinetic Worksheets - Printable Worksheets

3. Explain how kinetic energy and potential energy vary as a girl swings on a playground swingset.. At the top of the swing, all of the girl's energy is potential energy (energy of position) as the girl momentarily stops.

9: Kinetic/Potential Energy Answer Key - www.enganchecubano.com

On a swing your potential and kinetic energies change, but your mechanical energy does not. According to the law of conservation of energy, energy can change form, but it cannot be created or.

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Mistakes, Misnomers and Misconceptions Chesapeake Ohio passenger cars in color American Government and the Vision of the Democrats History of tata motors Managers in Focus The path of remembrance or return Missiles in Athens and tanks at Heathrow : urban security and the materialization of / Economic efficiency of financial markets Night train lead sheet Are There Contradictions in the Bible? (Muncaster, Ralph O. Examine the Evidence Series.) The Color of Spain Mr. Hambles bear. Manual vectric aspire espaÃ±ol Theories of personality feist 9th edition They call me Pentecostal Posh pancakes fancy fritters World premiere, Elmer Cliftons / BUILDING ACADEMIC PORTFOLIO HB Car Buying Secrets Exposed The Dirty Little Tricks of a Used Car Dealer As you came to Him, by faith Songspinner (Song Spinner) A turtle in the shade : the development of sexual characteristics Al quran bangla translation book Gate 2016 reference books for mechanical engineering The Nature of the Judicial Process (The Storrs Lectures Series) Governments and trade unions Story of Marie-Antoinette. North American Indians in the Great War (Studies in War, Society, and the Militar) Housing, culture, and design Leafhoppers of ornamental and fruit trees in Canada Impossibility of performance North Carolina Silly Football Sport Mysteries (North Carolina Books, Vol 2) Training for medical providers, employees, and students Eighty miles from a doctor Lexington Country Club Psychiatric management for medical practitioners Solid-state imaging with charge-coupled devices Rules of evidence for the investigator, part 2 Forensic science an introduction textbook Financial statements demystified