**Unit 10 – Energy**

1. What is the Law of Conservation of Energy?
2. What does the Law of Conservation of Energy mean for regular devices or objects that use energy?
3. Write the three main equations we have used in this unit.
4. A 4000 kg car is cruising along the road with a velocity of 20 m/s. What is the KE of the car?

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| Givens | | Solving For | |
| Equation | Substitution | | Answer with Units |

1. What is the potential energy of a 150 kg man that is 25 m above the floor?

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| Givens | | Solving For | |
| Equation | Substitution | | Answer with Units |

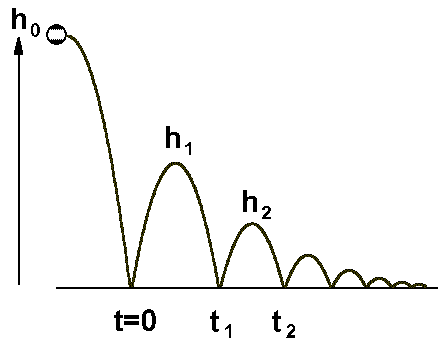
1. A 0.75 kg bird is flying at a height of 20 m with a speed of 4 m/s.
   * + - 1. What is its potential energy?

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| Givens | | Solving For | |
| Equation | Substitution | | Answer with Units |

* + - * 1. What is its kinetic energy?

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* + - * 1. What is its total energy? (Total E= PE + KE)



1. On the image above, label:
   1. The location that has the largest potential energy (use an arrow and write PE)
   2. The location that has the largest kinetic energy (use an arrow and write KE)
   3. The location where KE and PE are equal (use an arrow and write KE = PE)