Create a parachute using the following materials:

* Rope
* 1 paper toilet roll (just the carboard piece)
* 1 weight (100 grams maximum)
* 1 plastic shopping bag
* Draw your design on a piece of paper
* Build your design and test the parachute 4 times (once for each round)
  + You are allowed 2 practice runs for each round if required.

Reminder:

* Attach design and observations for 2 marks each (4 marks)

Discussion Questions: (9 marks)

1. What types of energy are observed in this experiment be specific (look at pages 203 and 204 for ideas)?
2. Calculate the Gravitational Potential Energy of your parachute.
   1. (remember g = 9.8 m/s2, m = 0.010 kg, = 2 meters)
   2. Does this answer seem reasonable? Explain.
3. Calculate the velocity of your parachute.
   1. (remember Eg=Ek, m = 0.010 kg)
   2. Does this answer seem reasonable? Explain.
4. What type of energy transformation is occurring at the following times:
   1. When you let the parachute go.
   2. When your parachute hits the ground.
5. Considering the 4 rounds which of your parachute designs was most effective?
6. What is the benefit of using a glider compared to plane?
   1. Explain the impact on the environment in terms of energy.