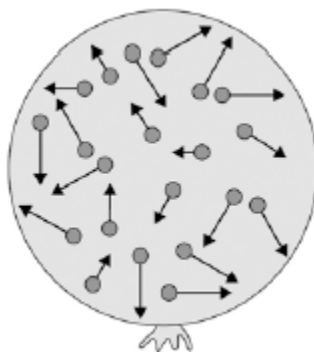


3. The figure below shows a balloon filled with helium gas.



(a) Describe the movement of the particles of helium gas inside the balloon.

(2)

(b) What name is given to the total kinetic energy and potential energy of all the particles of helium gas in the balloon?

Tick **one** box.

External energy

Internal energy

Movement energy

(1)

(c) Write down the equation which links density, mass and volume.

(1)

(d) The helium in the balloon has a mass of 0.00254 kg.

The balloon has a volume of 0.0141 m³.

Calculate the density of helium. Choose the correct unit from the box.

m³ / kg	kg / m³	kg m³
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Density = _____ Unit _____

(3)
(Total 7 marks)