

10 (a) Sketch a diagram to show the orbital path of a comet around the Sun.

Mark the position of the Sun on your diagram using an S.

[2]

(b) Draw a cross on your diagram to show where the comet is travelling with the slowest speed.
Label the cross **L**. [1]

(c) Explain why the speed of a comet changes as it travels around its orbit.

Use the conservation of energy in your explanation.

.....

.....

.....

..... [3]

[Total: 6]