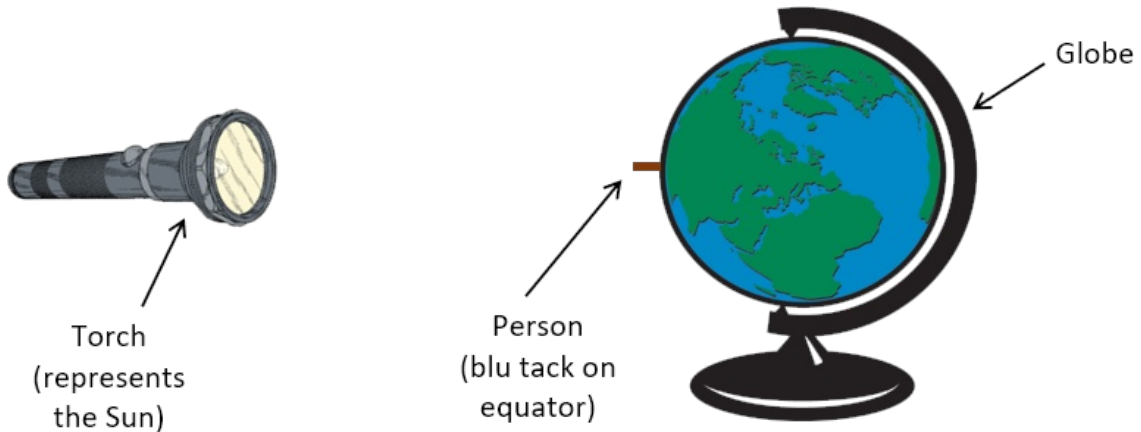


# Modelling shadows

**This task is about looking at the lengths of shadows in relation to the position of the sun.**

Set up the task as shown in the diagram below.

The torch must be kept in the same place.



- a) Turn the globe to the position where the shadow created by the "person" (blue tack) is at its shortest. Explain why this happens.

- b) i) Turn the globe to the two positions where the person's shadow is the longest. Explain when this happens.

- ii) At what time(s) of day do the longest shadows occur?

- c) Turn the globe so that the person makes no shadow.  
Explain when this occurs.

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