

Science - Year 6

Light – Block 6L

Crime Lab Investigation

Session 4

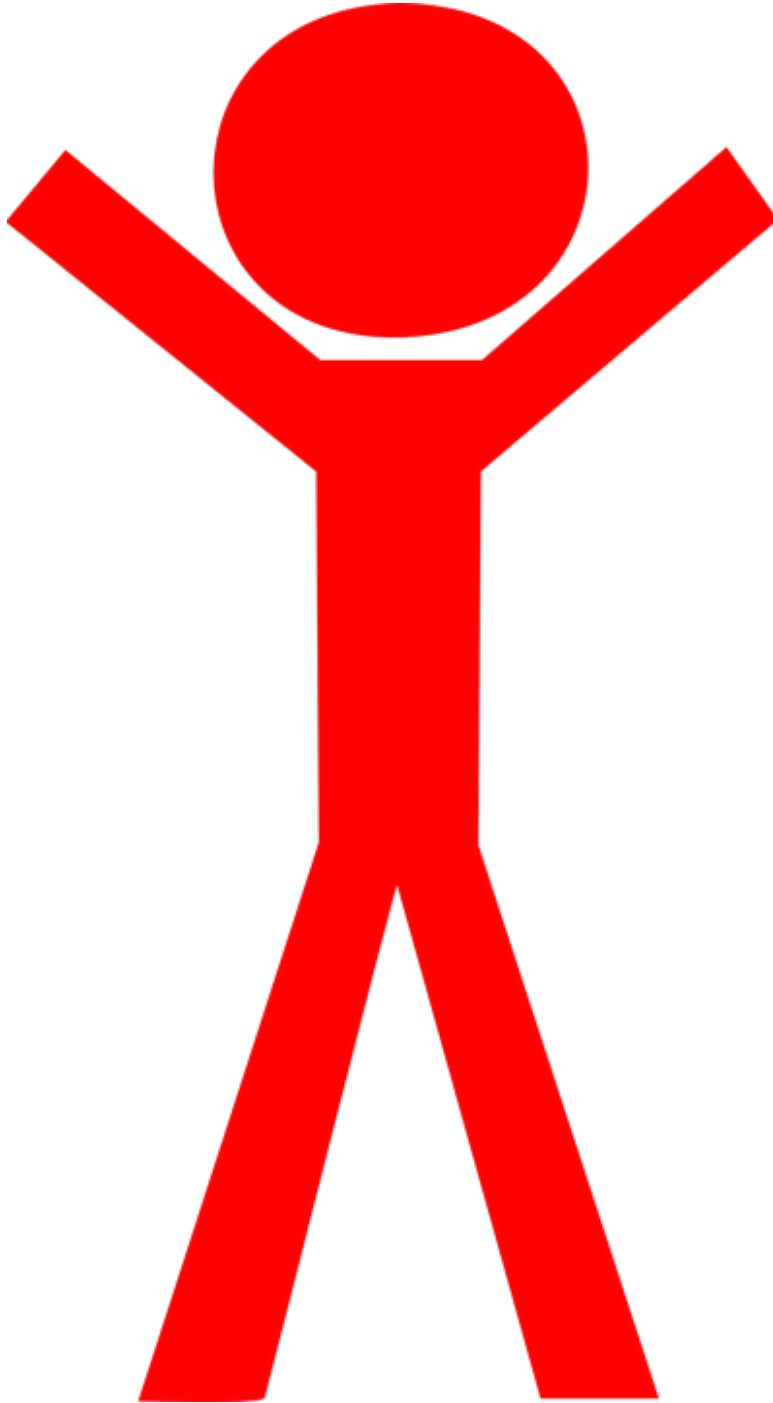
Resource pack

UK CRIME LAB - EVIDENCE FILE

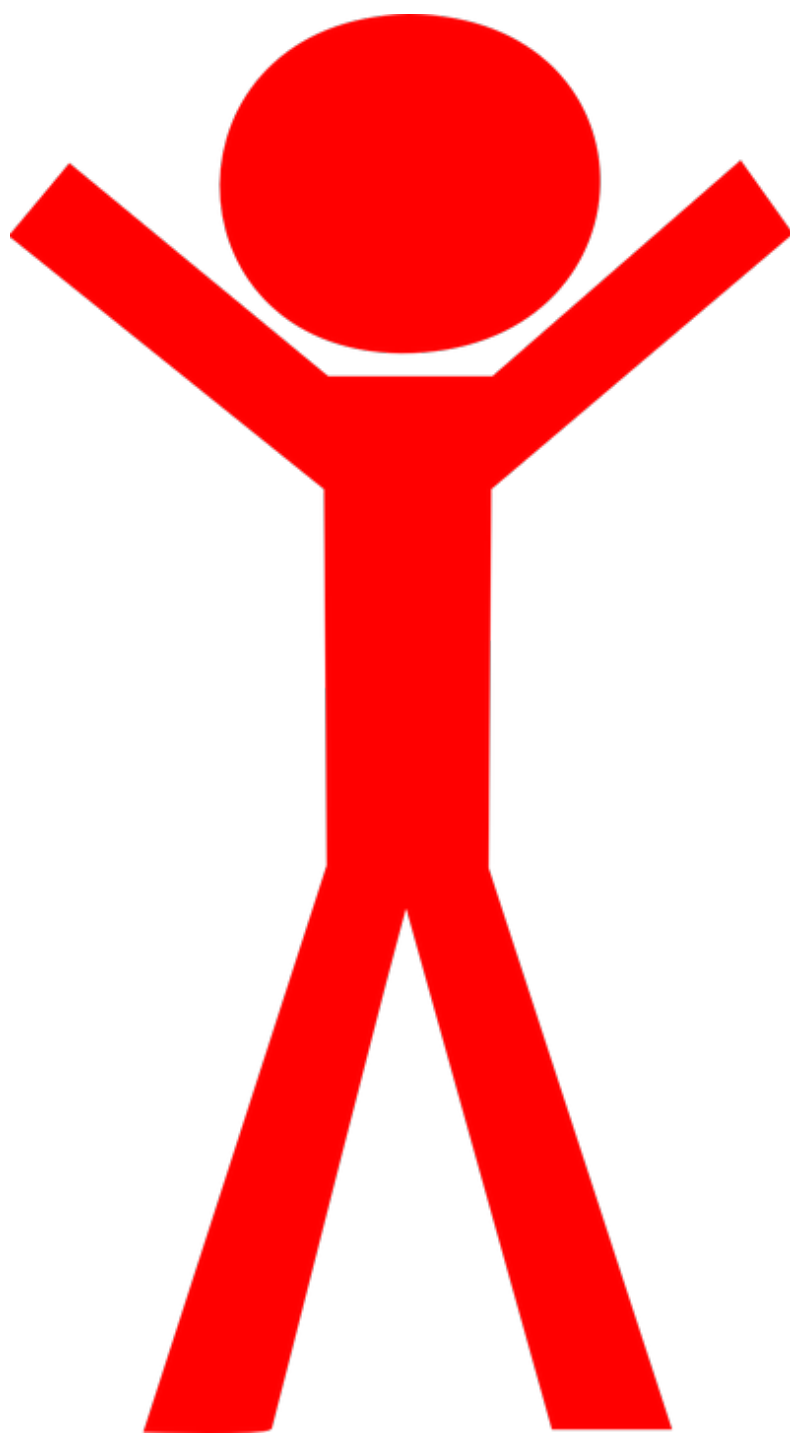
SUSPECT SCALED OUTLINES



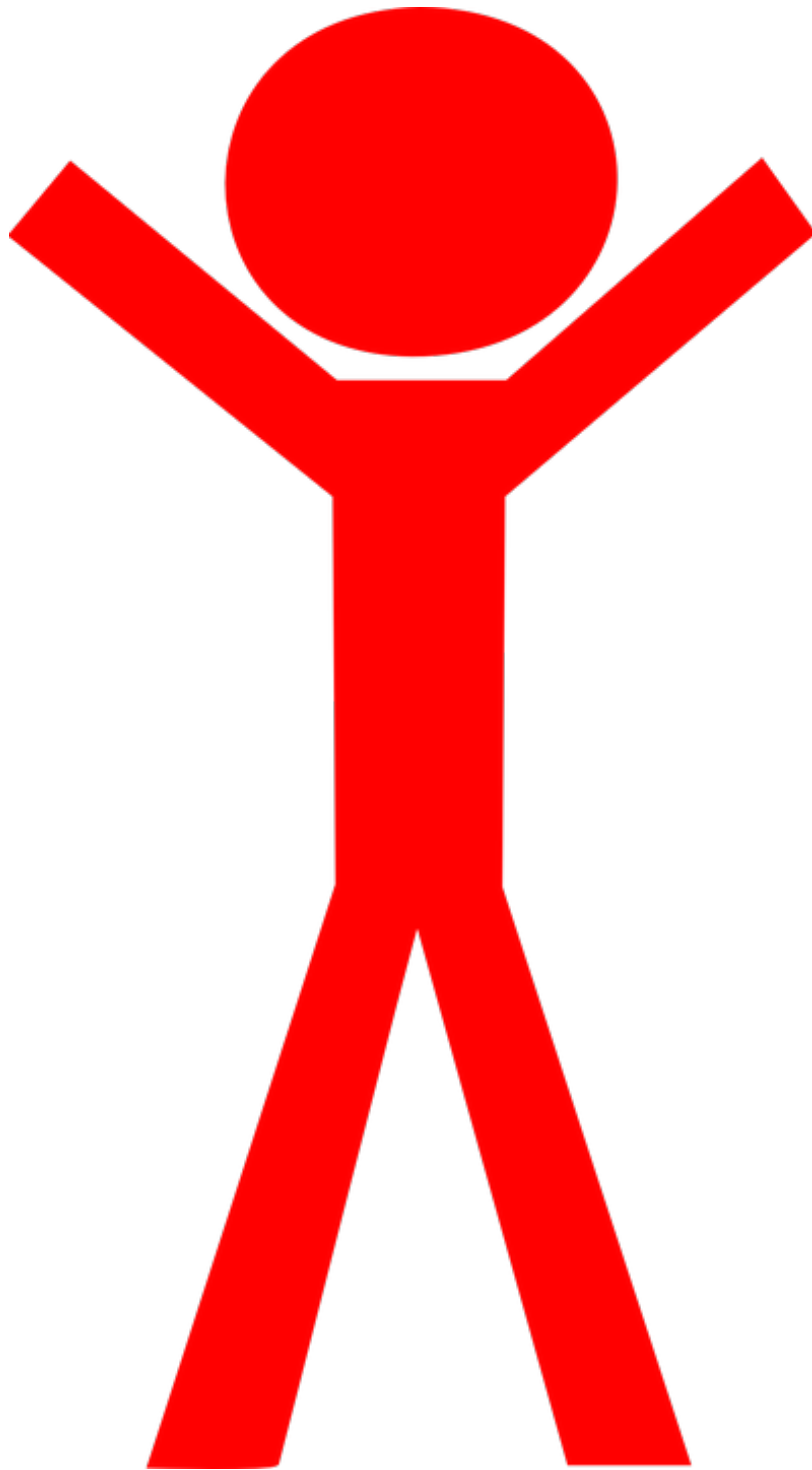
Heights converted to cm (see session 2) and
drawn with a ratio of 1cm = 10cm)



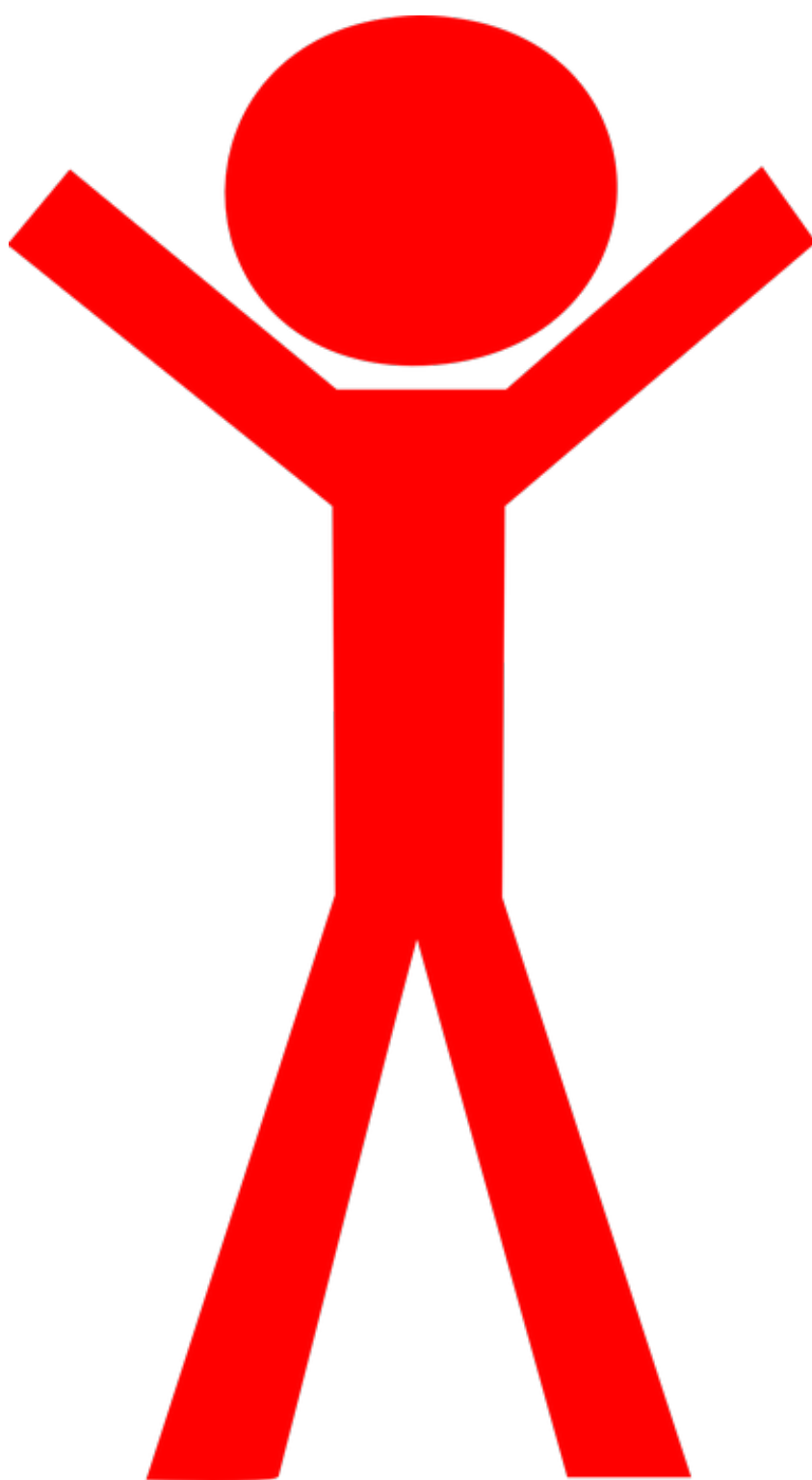
Anaya Jindal - 5ft 9



Hannah Jackson - 5ft 10



Oliver Browning - 6ft



Craig Ray - 6ft 3

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SHADOW DATA

First sighting

Distance from light source: 1m

Estimated length of shadow: 1.8m

Second sighting

Distance from light source: 2m

Estimated length of shadow: 3m

Third sighting

Distance from light source: 3m

Estimated length of shadow: 5.5m

Remember to use a scale ratio of 1cm: 10cm

Margin of error: approximately 10cm

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SHADOW DATA

First sighting

Distance from light source: 1m

Estimated length of shadow: 1.8m

Second sighting

Distance from light source: 2m

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Third sighting

Distance from light source: 3m

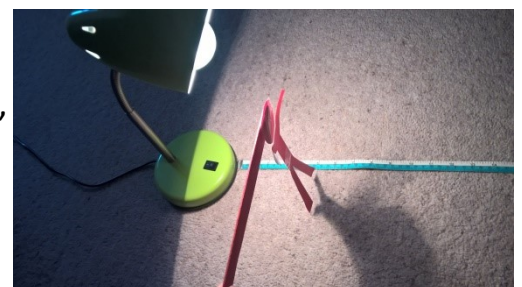
Estimated length of shadow: 5.5m

Remember to use a scale ratio of 1cm: 10cm

Margin of error: approximately 10cm

Note for teacher

Get the children to set up an investigation using a light source (table lamp or torch), the suspect outlines, and a tape measure. To ensure the light source is in the 'correct' position, use Hannah Jackson (5ft 10) as a starting point and get the children to set up the experiment based on her 'results' (which are around 18cm, 38cm and 63cm respectively for each of the sightings from 1-3). This will get the positioning of the light source correct in order to measure the possible shadows for the other suspect outlines. Children can then measure the possible lengths of the shadows for each suspect (this will need to use the scaled ratio given of 1cm : 10cm).



Craig's shadows, when measured, should be a long way outside the parameters (+/- 10cms or so).

Sample line graphs

