

Richard III

Discovery

Osteology - The study of bones

In **osteology**, science, history and maths combine to help us to unpick the past. Although not exact, osteology is a more **reliable** form of **evidence** than some of the written pieces of evidence that have been found. To find out how tall a person was, scientists can measure particular bones and then use this to work out roughly how tall a person would have been. This was used on Skeleton 1 to calculate the height that the person would have been when alive.

You can try this method for yourself by measuring your own bones...

You will need somebody to help you and a tape measure. One of the calculations asks you to measure in centimetres, the other asks you to measure in inches. Make sure you use the right measurement! (Centimetres are usually on one side of the measuring tape and inches are on the other side.)

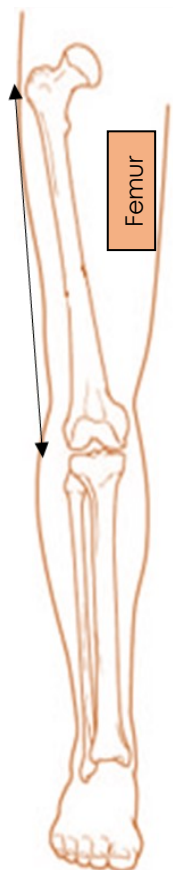
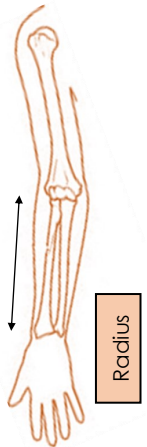
There are two bones you can measure to try this; **Radius** – wrist to elbow and **Femur** – knee to hip. Then fill in the calculations to work out your height, use a calculator to help.

In inches, measure the length of your **Radius** (Radius is the bone from the base your wrist to your elbow).

Boys: Length of radius x 3.3 = _____ + 32 = _____ inches

Is this the same as your height in inches?

Girls: Length of radius x 3.3 = _____ + 34 = _____ inches



In centimetres, measure the length of your **Femur** (Femur is the bone from the top of your knee to your hip).

Boys: Length of femur x 3.7 = _____ cm

Is this the same as your height in centimetres?

Girls: Length of femur x 3.65 = _____ cm

Once you have measured both bones and used the calculations to work out your height, measure your actual height to see how close you were.

Which bone gave you the most accurate measurement, radius or femur? Is it more accurate on a grown up? This is because you are still growing.