

Length

The following are activities that can be carried out when visiting the park.

UNITS OF LENGTH

These are metric units:

1 kilometre (km) = 1000 metres (m)

1 metre (m) = 100 centimetres (cm)

1 centimetre (cm) = 10 millimetre (mm)

The majority of the items below are around the Pump Room in the east side of the park. Which of the units of measurement above is most appropriate to measure each item? Choose two other things you can see, preferably with different units of length, and add them to the list of items.

Item	Unit
The distance along the front of the Pump Room.	
The length of an oak tree leaf.	
The length of a bee.	
The distance from the Pump Room to Cheltenham High Street.	
The diameter of the bandstand.	
The length of a seed.	
The width of a column supporting the Pump Room.	
The width of the Welcome board near the entrance.	

ESTIMATING LENGTH

This is an activity based on the Community Bridge in the west side of the park.

At each end of the bridge are posts to stop vehicles being driven onto the bridge. Can you estimate the distance between the posts. What unit of measurement would you use?

Next walk between the centre of the two posts, and count the number of steps it takes. Measure the distance between each step and multiply this by the number of steps taken and see how this compares with your original estimate.

Next measure the distance by using the length of your shoe. Walk heel to toe and count the number of shoe lengths needed. Measure the length of your shoe and multiply this by the number of shoe lengths. Compare with your other two estimates.

Now measure the actual distance between the centres of the posts and decide which method produced the most accurate estimate.

Measurement/estimate	No. of steps/feet	Length of step/foot	Length and unit of measurement
Original estimate	-----	-----	
Steps			
Feet			
Actual measurement	-----	-----	

THE KILOMETRE

It is easy to see what a metre or centimetre is by looking at a tape measure or measuring stick but a kilometre is not so easy. One way is to walk a kilometre. In the west side of the park is the '**3-2-1 route**' along which you can walk a measured kilometre. (please note a plan of the '**3-2-1 route**' is included in the Learning Resources on our website).

Time yourself and see how long it takes. Teachers can record the average time for their class to walk the kilometre at different ages so pupils can draw a graph showing the time taken against age.

If it takes you 10 minutes to walk a kilometre and you walk for 20 minutes at a similar speed can you estimate how far you have walked?