Name:

Science at the Roman Baths

Surface area and volume

Different temperatures

Different pools have different temperatures.
Note them down below:

Sacred Spring _____

Water entering the Great Bath _____

Great Bath _____

Why doesn't the temperature of the water stay constant once it leaves the Spring?

Surface area

Go to the Great Bath (point 3 on your map). You are going to roughly measure the surface area of the Great Bath. Count how many strides it takes you to walk the length and width. Assume 1 stride = 1 metre, then multiply your numbers together to get surface area.

Length _____ strides = _____ metres

Width _____ strides = _____ metres

Surface area = _____ metres squared (m^2)

What effect will the surface area of a body of water have on how quickly it loses heat? Which parts of the Roman Baths will lose heat quickest?

Volume

Find out the depth of the Great Bath

Depth = _____ metres.

Now you know the depth, you can find out the volume of water in the Great Bath – just multiply your value for surface area by the depth of the Great Bath.

Volume= _____ metres cubed (m^3)

One metre cubed is the same as 1000 litres. How many litres of water are contained in the Great Bath?

Litres = volume in metres cubed (m^3) x 1000 = _____