



## A Geographical River Study

If you have been to the Centre to undertake a geographical river study with year 5 or 6 the sets of data below may be useful.

During your visit you will either have undertaken your river study on a straight section of river or on a meander. This obviously affects the data gained. Below are sets of example data for both sites so you have a comparison. Please be aware that the data collected may vary with time of year and weather conditions etc. but the general patterns will be the same.

Following the exemplar data there are suggestions of what to do with the data back at school.



## Meander Section Exemplar Data

River Width	0m	0.5m	1m	1.5m	2m	2.5m	3m	3.5m	4m	4.5m	5m	5.5m	6m	6.5m	7m	7.5m	8m	8.5m	9m	9.5m
Depth (cm)	0	1	2	4	7	8	10	10	14	15	19	23	25	28	27	0				

River Width	0m	1m	2m	3m	4m	5m	6m	7m	8m	9m
Stone size (cm)	1	1.5	2	2	7	8	12	10		
	1.5	3	1.5	4.5	6.5	8.5	8	9		
	1	1	3	6	4	5	7.5	6		
Ave	1.2	1.8	2.2	4.2	5.8	7.2	9.2	8.3		

10m	Near Bank		Middle		Far bank	
	Estimate	Actual time	Estimate	Actual time	Estimate	Actual time
Speed (secs)		24		17		13

## Straight Section Exemplar data

River Width	0m	0.5m	1m	1.5m	2m	2.5m	3m	3.5m	4m	4.5m	5m	5.5m	6m	6.5m	7m	7.5m	8m	8.5m	9m	9.5m
Depth (cm)	0	7	10	12	11	15	19	21	26	28	27	26	26	20	13	16	10	7	4	0

River Width	0m	1m	2m	3m	4m	5m	6m	7m	8m	9m
Stone size (cm)	2	1	3	4	5.5	7	6	5	4	2
	1	1.5	4	2.5	4	5	4	10	3	1.5
	1.5	1	2	2.5	6	8	7	3	2.5	1
Ave	1.5	1.2	3	3	5.2	6.7	5.7	6	3.2	1.5

10m	Near Bank		Middle		Far bank	
	Estimate	Actual time	Estimate	Actual time	Estimate	Actual time
Speed (secs)		22		14		19

## Post Visit follow up - You have collected your data, what can do you do with it now?

In its simplest form the data can be looked at and patterns observed.

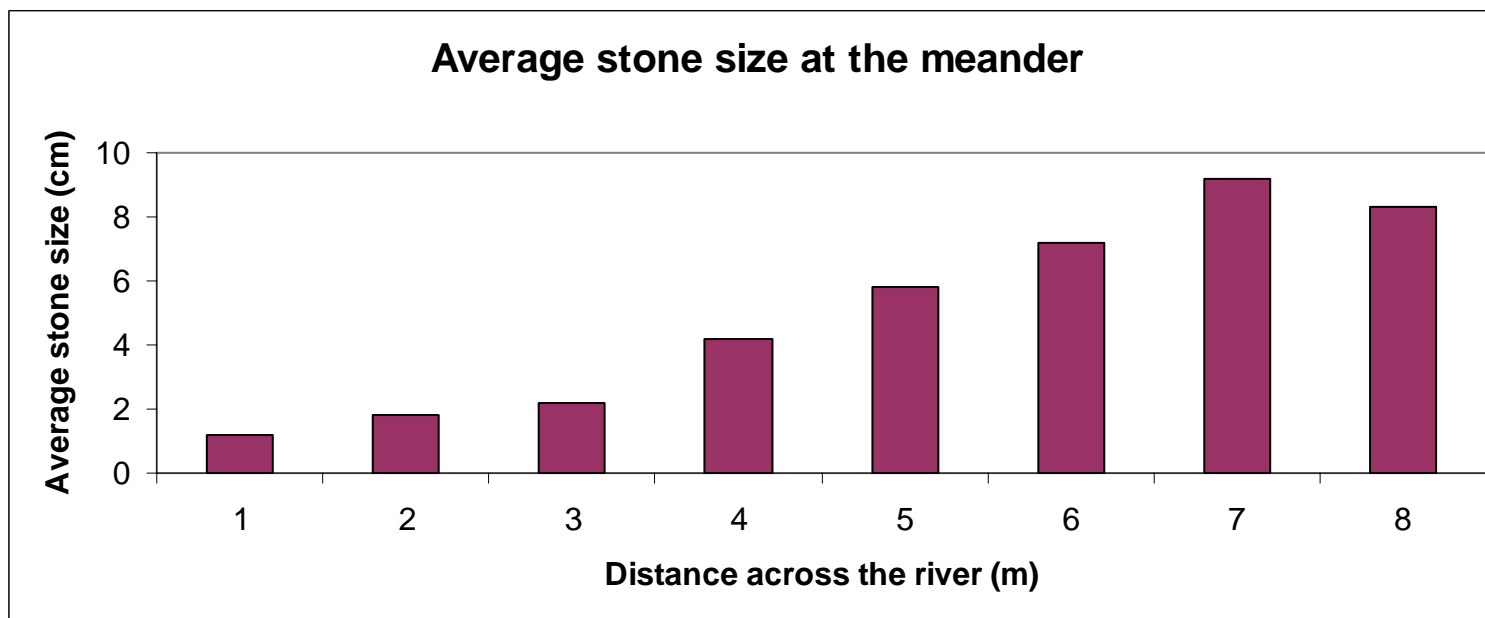
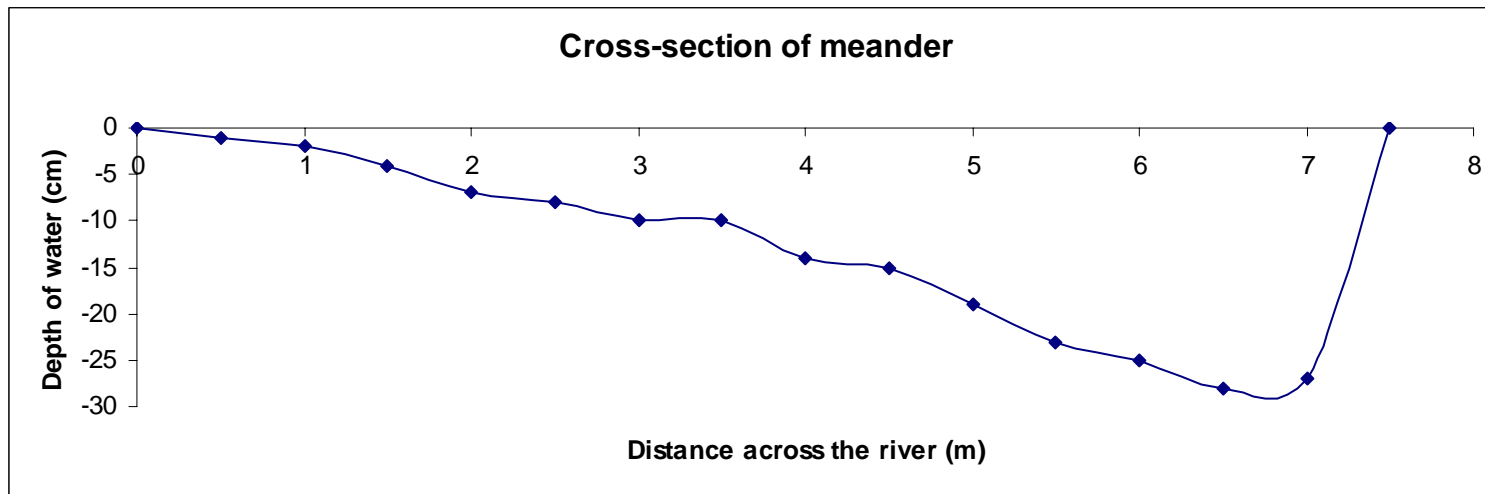
The class should identify the pattern that where the river flows fastest it is deeper with larger pebbles on the bed and where it is slower the river is shallower with smaller stones on the bed.

You could then move on to represent the data as a series of graphs to illustrate the patterns observed.

- The depth could be represented as a cross section to show the shape of the bed of the river. With the depth of water on the y axis and width across the river on the x axis. (Please note if this is done conventionally the river will be upside down, so you need to draw the y axis down from 0 to show it's depth from the surface.)
- The stone survey could be represented in a number of different ways; the simplest and most effective is probably a simple histogram of the average results.
- The speed can also be represented in a number of different forms on either a histogram or a line graph

Below are the depth cross section and the stone survey graphs for the example data at both the meander and straight section of the river. By comparing the graphs the differences between the different sections can be easily illustrated.

## Graphical representations of meander section exemplar data



## Graphical representations of straight section exemplar data

