Summary of Unit 1 Physical Fieldwork Enquiry: Carding Mill Valley

Planning Stage → Data Collection → Data Processing / Presentation → Data Analysis → Conclusions → Evaluation

Geographical Enquiry Focus

Enquiry Question:
Does the stream at …… fit the ……..?

Hypothesis/Hypotheses/Predictions made pre-visit

Check out the Bradshaw Model …. What might we have predicted we would see as we went away from the source? List 3 of your own PLUS the stream would get wider and deeper

Fieldwork Location

Name of river/stream: *use the internet to find this if you have forgotten*

Location: valley name? nearest settlement? County?

Study Area Key Facts: Useful phrases/abbreviations to include: *CMV; NT;*

Specifics about the sites: eg upper or middle course; near confluence
Phrases to include upper near source; upper/middle course waterfall confluence

Justify why these specific data collection sites were chosen. (Advantages, links to focus of enquiry etc.)

Represents 2 of the 3 stages of the river – say which
Able to see: waterfall; confluence; tributary; river cliff

Risk Assessment

Hazard	Risk	Strategies to Minimise Risk
Trespassing	*Prosecution – fine*	*Get land owner permission if private property*
Deep fast flowing water	*Risk of ……..*	
Weil's Disease	*Risk of …… due to …..*	
KEEP GOING….	**CHECK EX BK**	***OR INTERNET?***

Explain (using chains of reasoning – this means that…) why it is important to carry out a risk assessment.

Human safety is important when collecting data in/around water, where there is a significant chance of ……
Consider: remote location; emergency help

Sampling Strategies

Strategy	Data Sampled	Explanation
Stratified	N/A	N/A
Systematic	YES – SAY WHAT DATA	SAY WHY THIS IS THE BEST STRATEGY
Random	YES – SAY WHAT DATA	SAY WHY THIS IS THE BEST STRATEGY
Opportunistic	N/A	N/A

Justify why you used one of your sampling strategies. (How does it help to collect useful data in your enquiry?)
Phrases to include valid; representative data; fair test; equal chance of being chosen

Data Collection Methods

	Primary	Secondary
Qualitative	***Yes we did – name the data here***	***photos***
Quantitative	***Yes we did – name the data here***	***Maybe we haven't yet… but you could get data for another river or from another group who went at a different time***

Why do we use both primary and secondary data?

Primary – own data; real life hands on
Secondary – helps with data representation; helps us to see if our results are 'normal' or anomalous or to see if how the river changes if collected at a different time of year

Justify why you used one of your primary data collection techniques. (How does it help in your enquiry? Why did you collect the data in the way that you did?)

Eg River velocity – helps us to see whether river speed increases/decreases downstream; repeated the velocity test three/five times at each location so that …..
Used a cork each time to make sure it was a ? test

Data Processing

This is where data must be manipulated before it can be used. Give examples of when you processed data in your enquiry. Try to refer to a range of processing techniques.

Phrases to include: minimum, maximum, range, mean; mode; %; calculating velocity & cross-sectional area – which data did we do this for?

Eg: sediment size – min, max, range DO THIS FOR EACH DATA WE COLLECTED

Data Presentation

With the aid of a diagram, describe one technique used to present data in your enquiry. *WE DID LOTS OF GRAPHS – CHOOSE ONE, DRAW A QUICK VERSION BELOW; SAY WHAT IT SHOWS AND WHY THAT IS THE BEST TECHNIQUE TO CHOOSE. THE BEST DATA REP IS CLEAR & COLOURFUL AND ALLOWS FOR PATTERNS AND TRENDS TO BE SPOTTED EASILY*

Data Analysis

Describe the overall results found in your enquiry.
For every piece of data – say what the results/trends were eg [example only not real results] WIDTH – the river became twice as wide, it went from 1.5m to 3m

Make links between at least 2 different data sets.
Width and depth
Depth and speed
Speed and sediment size
Sediment size and depth …. There are others

Use chains of reasoning (this means that…) to explain the results found. *The river got wider and deeper. This means that more water was being added from tributaries. Extra water reduces the amount of friction with the bed and banks so the river can flow faster. This in turn increases the amount of [process name] which helps explain why some sediment [change type]. KEEP GOING!!!*

Evaluation

How accurate, reliable or biased were your results?

	Strengths	Limitations	Improvements
Methods	*Fair test*	*Basic equipment eg corks* *Didn't see lower course* *Didn't measure all 8 Bradshaw variables* *Is 30 pieces of sediment a true picture?*	*Use a flow meter* *Go to …..* *Measure …..*
Results	*Accurate* *Wide range of data*	*Unusual weather* *small snapshot of stream* *small data sets*	*…..* *…….* *…….*
Conclusions	*Can comment on ?/8 variables*	*Small data set so results are …..*	…….

Conclusions

What conclusions can you draw from your results? (How does it help in your enquiry? Why did you collect the data in the way that you did?)

ACCURATE – YES & NO; followed the methodology correctly; practised with equipment before we went; human error – data recording? Time lapse on stop watch?

RELIABLE – Mostly, but think about the weather conditions, how were they unusual then think about which data we collected this would have affected eg depth was higher/lower than usual which then affects ……..

BIASED - Did the sediment collecting person really do random or did they grab the biggest stones?

Links to Geographical Theory

When comparing your analysis to the Bradshaw Model, what can you say?

8 CRITERIA, WE TESTED ?/8

STREAM FITS ON ?/8 SO WE CAN SAY IT

IS A TOTAL/PARTIAL FIT