

Deciding on Fieldwork Questions		Risk assessment			Key Terms					
<b>Physical Fieldwork Questions</b> <ul style="list-style-type: none"> <li>How do river characteristics change downstream?</li> <li>How does longshore drift affect beach profiles?</li> <li>What impact is erosion having at _____?</li> <li>Is flood management effective at _____?</li> <li>Does tourism has a positive impact on _____?</li> </ul> <b>Human Fieldwork Questions</b> <ul style="list-style-type: none"> <li>Has regeneration being successful in _____?</li> <li>How does environmental quality vary in _____?</li> <li>How is traffic managed in _____?</li> <li>Do science parks have a positive impact in _____?</li> <li>Is there economic inequality between _____ and _____?</li> </ul>		<b>River currents</b> Risk of powerful water and risk of slipping over.	All wore wellies and were told not to go in deep parts of the river. Stay in groups.		<b>Enquiry Question</b> The question we were trying to answer by doing the fieldwork.					
			<b>Uneven ground</b> Danger of falling over due to uneven footpaths.							
		<b>Weather</b> Wet weather is dangerous due to slippery groynes etc. Hot weather also poses the risk of dehydration.	All wearing sensible footwear. Not running and walking carefully over large rocks.		<b>Data collection methods</b> The way in which we collected the data. EG. Measuring width, depth and velocity.					
			Students advised to bring plenty of water and sun cream if the weather forecast is hot. If the weather forecast is wet, students are advised to bring appropriate clothing and footwear.							
		<b>Unfamiliar areas</b> Getting lost in new environments.	Staying in groups. Carrying a phone and a map in case you do get lost.		<b>Data presentation methods</b> The type of graphs we used to present the data. EG. Bar, scatter, maps etc.					
			<b>Traffic</b> Getting ran over by vehicles.							
<b>Types of data</b>		<b>Evaluating data collection methods</b>			<b>Advantages</b>					
					<b>Disadvantages</b>					
<b>PHYS</b>	<ul style="list-style-type: none"> <li>River depth / width / velocity / discharge</li> <li>Pebble size / beach gradient / pebble roughness</li> <li>Photographs</li> </ul>	<b>Secondary Data</b> Data collected by someone else	<b>River Data</b> Data is easy to compare downstream			Current can make collection inaccurate				
			<b>Pebble data</b> See impacts of erosion.			Bias in selecting pebbles to measure				
<b>HUM</b>	<ul style="list-style-type: none"> <li>Environmental quality survey</li> <li>Questionnaires</li> <li>Interviews</li> <li>Traffic counts / Pedestrian counts</li> <li>Photographs</li> </ul>	<b>Secondary Data</b> Data collected by someone else	<b>Questionnaire</b> Understand people's opinions			Timely to analyse People may lie				
			<b>Env Quality Survey</b> Gain info on a wide variety of factors. Number is easy to compare scores.			Subjective – based on your opinion so can be bias.				
<b>Types of data</b>		<b>Counts (Traffic / pedestrian)</b> Understand how busy / popular an area is.			Can easily miscount by mistake if an area is really busy					
		<b>Sampling Strategies</b>			<b>Improving data collection methods</b>					
<b>PHYS</b>	<ul style="list-style-type: none"> <li>River depth / width / velocity / discharge</li> <li>Pebble size / beach gradient</li> <li>Weather data</li> <li>Erosion rates</li> </ul>	<b>Qualitative Data</b> Data that is descriptive	<b>Advantages</b>			<b>Make it ACCURATE &amp; RELIABLE</b> (Enough data that we can trust what we find out)				
			<b>Disadvantages</b>			<b>Make it REPRESENTATIVE</b> (Enquiry covers the whole area and not just a small part)				
			<b>Random Sampling</b> (Randomly choosing sites to collect data) 			<ul style="list-style-type: none"> <li>Not bias – each site has an equal chance of being picked.</li> <li>Can easily be done with a large area</li> <li>Sites can get clustered together meaning data collection isn't representative</li> <li>May lead to sites that are inaccessible</li> </ul>				
<b>HUM</b>	<ul style="list-style-type: none"> <li>Environmental quality survey</li> <li>Traffic counts</li> <li>Pedestrian counts</li> <li>House price data</li> <li>Crime statistics</li> </ul>	<b>Quantitative Data</b> Data that is statistical / numbers	<b>Systematic Sampling</b> (picking sites every ___ metres) 			<ul style="list-style-type: none"> <li>Gives a good representation of an area.</li> <li>Easier to do than random sampling</li> <li>Can be time consuming</li> <li>Can be bias as not all sites have an equal chance of being selected.</li> <li>May lead to sites that are inaccessible</li> </ul>				
			<b>Stratified Sampling</b> (picking sites by topic) 			<ul style="list-style-type: none"> <li>Flexible – fits with a lot of different enquiries</li> <li>Gives a good comparison of different areas. (Eg. Upper, middle and lower course)</li> <li>Not suitable for something like a questionnaire</li> <li>Could lead to bias from the person picking the sites</li> </ul>				
			<ul style="list-style-type: none"> <li>Collect more data and generate an average – reduce the risk of anomalies.</li> <li>Ask a wider variety of questions on a questionnaire.</li> <li>If something is opinion based, consulting with other people to reduce bias.</li> <li>Collect data at different times of day / year / weather conditions.</li> </ul>			<ul style="list-style-type: none"> <li>Collect data at more sites to cover a larger area – reduces the risk of anomalies.</li> <li>Ask a lots of different people for a questionnaire to cover all ages / genders / ethnicities etc.</li> <li>Collect data at different times of day / year / weather conditions.</li> </ul>				

## AQA Unfamiliar Fieldwork (Paper 3)

### Sampling Strategies

#### **Random Sampling** (Randomly choosing sites to collect data)



#### **Advantages**

- Not bias – each site has an equal chance of being picked.
- Can easily be done with a large area

#### **Disadvantages**

- Sites can get clustered together meaning data collection isn't representative
- May lead to sites that are inaccessible

#### **Systematic Sampling** (picking sites every \_\_\_ metres)



#### **Advantages**

- Gives a good representation of an area.
- Easier to do than random sampling

#### **Disadvantages**

- Can be time consuming
- Can be bias as not all sites have an equal chance of being selected.
- May lead to sites that are inaccessible

#### **Stratified Sampling** (picking sites by topic)

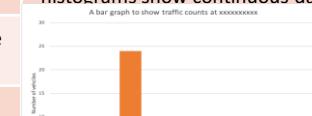
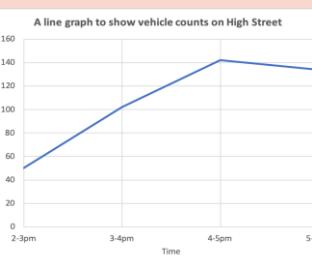
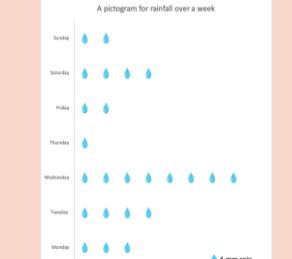
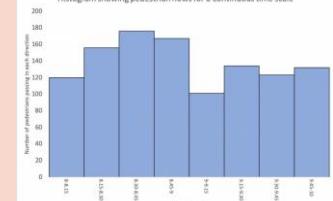
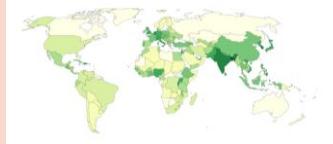
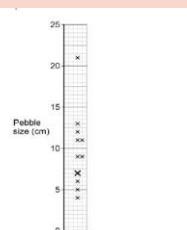
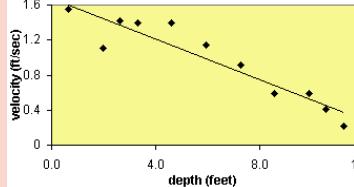


#### **Advantages**

- Flexible – fits with a lot of different enquiries
- Gives a good comparison of different areas. (Eg. Upper, middle and lower course)

#### **Disadvantages**

- Not suitable for something like a questionnaire
- Could lead to bias from the person picking the sites

Analysing Data		Bar Chart / Histograms	Line Graph	Pictogram
Mean	Add all data together and divide by the number of values.	Bar charts show continuous data whereas histograms show continuous data.  A bar graph to show traffic counts at 10 locations.	Line graph shows continuous data to show changes over time. There is always a dependent (the variable that isn't changed by other variables EG. time) and an independent variable (the variable that is changed by other variables (EG. The number of cars on the road).  A line graph to show vehicle counts on High Street	A way of presenting data using symbols.  A pictogram for rainfall over a week
Median	Put the data in numerical order and find the middle number.			
Mode	Most common number.			
Range	Highest number minus the smallest number.			
Interquartile Range	Upper quartile value minus the lower quartile value. More accurate than the range as it removes the extreme values.	Histogram ->  Histogram showing pedestrian flows for a continuous time scale		
WHY? + Averages can remove the risk of anomalies skewing the data. + Easily see a general trend / what is most common in the data. + Easily compare changes between areas.		Advantages: Can see a clear comparison / trend.	Disadvantages: Does show the causes of trends.	Advantages: Can show multiple sets of data. Disadvantages: If too much data is plotted – hard to read.
Choropleth Map				
Uses different shades of colour / symbols to display different amounts. 				
Advantages:	Easy to spot general trends.			
Disadvantages:	Not useful for showing total values			
Isoline map		Dispersion Graphs	Scatter Graphs	
Lines that join up values of the same value. (EG. Contour lines) 		Takes a set of data and allows you to see if the data is grouped together or very different. 	Investigated a link between 2 sets of data. 	
Advantages:	Can easily compare areas of equal value.	Advantages: Can easily spot anomalies in data.	Advantages: Can draw a LOBF to see if there is correlation.	Advantages: Good to display parts of a whole.
Disadvantages:	Can be difficult to read if lines are close together.	Disadvantages: Can be time consuming to analyse.	Disadvantages: Analysis of the correlation can be subjective.	Disadvantages: Can not be used to show trends.
Dot Maps / Proportional Symbol Maps		Flow Line / Desire Line Maps		
Dot maps show 1 dot per value. Proportional symbols are circles / symbols drawn at different sizes to represent different values. 		Flow lines show movement of something from one place to another. Desire lines show a line to show how places are connected. 		
Advantages:	Easy to interpret general trends.	Advantages: Shows connections between places.	Advantages: Overlapping makes it hard to read.	Advantages: Easy to see trends in large sets of data.
Disadvantages:	Clustering can make them hard to read.	Disadvantages: Overlapping makes it hard to read.	Disadvantages: Requires additional explanation.	Disadvantages: Requires additional explanation.

## Paper 3 Section B Unfamiliar Fieldwork (Paper 3)

