Fact Sheet - Sampling

Question	Answer
Definitions:	
Habitat	Where an organism lives
Environment	Living and non-living things in a habitat
Population	A group of organisms of the same species
Community	All organisms in an ecosystem
Biotic factor	Living factors which can affect distribution
Abiotic factor	Physical/non-living factors which can affect distribution
Distribution	The way organisms are spread over an area
Data	Facts and statistics that are collected
Quantitative data	Data that can be measured numerically
What are the physical factors which can affect organisms (6)	Availability of water *Temperature* Availability of nutrients Amount of light Availability of oxygen Availability of carbon dioxide

Sampling theory		
A frame to place over a small area of habitat (eg $1m^2$)	Quadrat	
To estimate populations of organisms quadrats must be placed ??	Randomly	
… This is called	Random sampling	
… Type of data that can be collected this way	Quantitative data	
A line along which samples are taken at regular intervals	Transect	
… Samples along this line can be used to collect data on changes in species . . .	Distribution	
When sampling to find distribution data you should also measure these . . .	Abiotic factors	
… Why?	To help explain distribution	

How can you improve the reliability of your data?	Take a greater number of samples
How can you ensure that your investigation is valid?	As many control variables as possible will have been controlled/ kept the same
How do you know if your data is reproducible?	You compare data with other people who have done the investigation and they will have similar results (in a similar pattern)
How do you know if your data is valid? (3)	It will be repeatable, reproducible and answer the hypothesis