

PLANNING A SURVEY

Name:

Assessment Criteria: Suggest a problem to explore using statistical methods, frame questions and raise conjectures; identify possible sources of bias and plan how to minimise it

1. Billy is conducting a survey into pupils' attitudes towards the environment. He decides to ask a series of questions to everyone in his class.

a) Explain why this is not the best way to get reliable results

b) Describe a better way to select the pupils to ask

c) Having selected the pupils he wants to ask, how can he ensure they all respond to the questionnaire in a reliable way?

2. One of the questions on Billy's questionnaire is shown below:

'4x4 vehicles are known as 'gas-guzzlers' as they use a lot of fuel and have a high level of dangerous emissions. Do you think there should be restrictions on how they are used?'

Yes No No opinion

a) Write down a criticism of this question

b) Write down a better way to ask the same question

Overall, I think my success level is:

Low High
○ ○ ○ ○

Q	PLANNING A SURVEY	☺	☹
	I can reduce bias in statistical investigations by considering non-response, timing and selection		
	I can reduce bias in statistical investigations by ensuring a sample is representative		
	I can reduce bias in statistical investigations by asking questions in an appropriate manner		
	<i>I can justify generalisations, arguments or solutions</i>		
I need to practise ...			