

Sampling and surveys				
4	3	2	1	0
<p>Can extend thinking beyond the standard, including tasks that may involve one of the following:</p> <ul style="list-style-type: none"> • Designing • Connecting • Synthesizing • Applying • Justifying • Critiquing • Analyzing • Creating • Proving 	<p>For a sampling situation, describe:</p> <ul style="list-style-type: none"> • The population and sample • Simple random samples • Stratified random samples • Cluster samples • Systematic random samples <p>Obtain a simple random sample using <u>all of the following</u>:</p> <ul style="list-style-type: none"> • A table of random numbers • A random number generator • The “hat method” <p>Explain how the following can lead to bias in <u>all of the following</u>:</p> <ul style="list-style-type: none"> • Voluntary response • Convenience samples • Undercoverage • Nonresponse • Response • Question wording 	<p>For a sampling situation, describe:</p> <ul style="list-style-type: none"> • The population and sample • Simple random samples • Stratified random samples • Cluster samples • Systematic random samples <p>Obtain a simple random sample using <u>2 of the following</u>:</p> <ul style="list-style-type: none"> • A table of random numbers • A random number generator • The “hat method” <p>Explain how the following can lead to bias in <u>5 of the following</u>:</p> <ul style="list-style-type: none"> • Voluntary response • Convenience samples • Undercoverage • Nonresponse • Response • Question wording 	<p>For a sampling situation, describe:</p> <ul style="list-style-type: none"> • The population and sample • Simple random samples • Stratified random samples • Cluster samples • Systematic random samples <p>Obtain a simple random sample using <u>1 of the following</u>:</p> <ul style="list-style-type: none"> • A table of random numbers • A random number generator • The “hat method” <p>Explain how the following can lead to bias in <u>4 of the following</u>:</p> <ul style="list-style-type: none"> • Voluntary response • Convenience samples • Undercoverage • Nonresponse • Response • Question wording 	<p>Little evidence of reasoning or application to solve the problem</p> <p>Does not meet the criteria in a level 1</p>

Experiments				
4	3	2	1	0
<p>Can extend thinking beyond the standard, including tasks that may involve one of the following:</p> <ul style="list-style-type: none"> • Designing • Connecting • Synthesizing • Applying • Justifying • Critiquing • Analyzing • Creating • Proving 	<p>Distinguish between</p> <ul style="list-style-type: none"> • observational study • an experiment • completely randomized designs • randomized block designs • <u>matched pairs design</u> <p>Identify and explain the purpose of</p> <ul style="list-style-type: none"> • control/comparison • randomization • replication • blinding <p>In an experiment identify the following</p> <ul style="list-style-type: none"> • experimental units • explanatory variables/factors • treatments • response variables <p><u>Describe and diagram</u> the following:</p> <ul style="list-style-type: none"> • a completely randomized experiment • a randomized block design • a matched pair design <p>Appropriately apply inference for</p> <ul style="list-style-type: none"> • a population • cause and effect 	<p>Distinguish between</p> <ul style="list-style-type: none"> • observational study • an experiment • completely randomized designs • <u>randomized block designs</u> <p>Identify <u>and explain the purpose of</u></p> <ul style="list-style-type: none"> • control/comparison • randomization • replication • blinding <p>In an experiment identify the following</p> <ul style="list-style-type: none"> • experimental units • explanatory variables/factors • treatments • response variables <p><u>Describe or diagram</u> the following:</p> <ul style="list-style-type: none"> • a completely randomized experiment • a randomized block design • a matched pair design 	<p>Distinguish between</p> <ul style="list-style-type: none"> • observational study • an experiment • completely randomized designs <p>Identify</p> <ul style="list-style-type: none"> • control/comparison • randomization • replication <p>In an experiment identify the following</p> <ul style="list-style-type: none"> • experimental units • explanatory variables/factors • treatments • response variables <p><u>Diagram</u> the following:</p> <ul style="list-style-type: none"> • a completely randomized experiment • a randomized block design • a matched pair design 	<p>Little evidence of reasoning or application to solve the problem</p> <p>Does not meet the criteria in a level 1</p>