

Example Benchmarks for Data Collection, Organization, and Interpretation: Secondary Levels

1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter
Data Collection			
<ul style="list-style-type: none"> • Provide students with prepared data collection tables to model what data tables should look like • Introduce <i>Tips for Student Data Collection</i> in the context of teacher generated data collection tables • During lab techniques discussion provide students with examples of what type of data they should be collecting and point out limitations of data being collected 	<ul style="list-style-type: none"> • Provide students with the types of data they will need to collect and have them construct an appropriate data collection table. • Use <i>Tips for Student Data Collection</i> • During lab techniques discussions have students, as a group, decide what type of data they need to collect and the limitations of the data collection process 	<ul style="list-style-type: none"> • In small groups, have students determine what types of data they need to collect based on protocols/procedures and construction data collection tables • Use <i>Tips for Student Data Collection</i> • After lab techniques discussion have small groups decide on types of data being collected and their limitations 	<ul style="list-style-type: none"> • As individuals, students create their own data collection tables based on protocols/ procedures, what types of data they are collecting and the limitations of that data • Use <i>Tips for Student Data Collection</i> to peer review data collection tables
Data Organization			
<ul style="list-style-type: none"> • Provide students with the type of data organizer they will use to present their data • As a class, use <i>Checklist for Construction of Data Organizer</i> to review the strengths and weaknesses of the selected organizer • As individuals, students construct drafts of data organizer and receive peer feedback based on the <i>Checklist for Construction of Data Organizer</i> 	<ul style="list-style-type: none"> • Provide students with two choices of data organizers and have them create drafts of both types • In small groups, determine which type of organizer maximizes visualization of data and defend selection • Create clean presentation level version of data organizer • Peer review using the <i>Checklist for Construction of Data Organizer</i> 	<ul style="list-style-type: none"> • In small groups, select an appropriate data organizer for data set • As individuals, students create a draft and self review based on <i>Checklist</i> • As individuals, students create a clean presentational level version of data organizer • Peer review using <i>Checklist for Construction of Data Organizer</i> 	<ul style="list-style-type: none"> • As individuals, students select, draft, review, and create final versions of data organizers • Peer review using <i>Checklist for Construction of Data Organizer</i>

1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter
Data Interpretation			
<ul style="list-style-type: none"> • Provide students with captions for constructed data organizers, have students analyze the language of the caption • Create an anchor chart around what type of information is contained within a caption • Provide students with a series of prompts to respond to their data and require they use the data to support their statements 	<ul style="list-style-type: none"> • In small groups, students create captions for data organizers adhering to guidelines in anchor chart • Groups peer review captions based on guidelines in anchor chart • Provide students with a larger question (this could be the testable question if present) about data and require they use their data to answer the question 	<ul style="list-style-type: none"> • As individuals, students create captions for their data organizers • Peer review captions according to guidelines in anchor chart • In small groups, students interpret their data in light of purpose of the experience. • As individuals, students explain their interpretations of data in writing • Peer review write-ups 	<ul style="list-style-type: none"> • As individuals, students create appropriate captions for data organizers • As individuals, students interpret data in light of purpose of the experience and write-up their interpretations • Peer review captions and write-ups