Chapter 3 Planning Chart: Data Management
Cross-Curricular Competency: Uses information and communication technologies. For lessons involving collection or analysis of data (Lessons 1, 5, 6), have students collect additional data for analysis using the Internet. This exercise can also be used to discuss bias in data and the selection of trusted online data sources.
Broad Area of Learning: Media Literacy. Lessons 2 and 7 provide an opportunity to have a discussion regarding the ways that statistics that are presented in newspapers, magazines, and other media.

Content	QEP Concepts	QEP Processes	Addressing Concepts and Processes
Getting Started: Typical Names, pp. 80–81			Assessment Opportunity
Lesson 1: Collecting Data, pp. 82–83	*Statistics: Statistical Reports* • Table: characteristics, frequencies • Reading graphs: bar graphs, broken-line graphs, circle graphs	*Statistics: Processing Data From Statistical Reports* • Organizing and choosing certain tools to present data: • Constructing tables • Constructing graphs: bar graphs, broken-line graphs, circle graphs • Highlighting some of the information that can be derived from a table or a graph (e.g. minimum value, maximum value, range, mean)	The terms "primary data" and "secondary data" are not mentioned in the QEP. These terms in the lesson can just be avoided and treated simply as "data", without distinguishing between the two types.
Lesson 2: Avoiding Bias in Data Collection, pp. 84–87	*Statistics: Statistical Reports* • Population, sample • Sample survey, poll, census • Sources of bias	*Statistics: Processing Data From Statistical Reports* • Conducting a survey or a census • Determining the population or the sample • Gathering data	
Mental Math: Multiplying by 10, 100, and 1000, p. 87	*Arithmetic: Number Sense With Regard to Decimal and Fractional Notation and Operation Sense* • Reading, writing, various representations, patterns, properties • Fractional, decimal and exponential (integral exponent) notation; percentage, square root	*Numbers Written in Decimal and Fractional Notation* • Mental computation: the four operations, especially with numbers written in decimal notation, using equivalent ways of writing numbers and the properties of operations	
Lesson 3: Using a Database, pp. 88–91			Beyond Cycle One. Do not assess.
Lesson 4: Using a Spreadsheet, pp. 92–95			Beyond Cycle One. Do not assess.
Mid-Chapter Review: pp. 96–97			Assessment Opportunity Exclude the last of the Frequently Asked Questions on page 96; it is beyond Cycle One. Use Questions 1–2.
Lesson 5: Frequency Tables and Stem-and-Leaf Plots, pp. 98–101	*Statistics: Statistical Reports* • Table: characteristics, frequencies • Reading graphs: bar graphs, broken-line graphs, circle graphs	*Statistics: Processing Data From Statistical Reports* • Organizing and choosing certain tools to present data: • Constructing tables • Constructing graphs: bar graphs, broken-line graphs, circle graphs	Stem-and-leaf plot is referred to throughout the lesson, but this is beyond Cycle One. Exclude part a) of Example 2 and the stem-and-leaf plot in Example 3. Use Questions 2 (exclude stem-and-leaf plot), 3–5, 10b)–d).
Lesson 6: Mean, Median, and Mode, pp. 102–105	*Statistics: Statistical Reports* • Table: characteristics, frequencies • Arithmetic mean	*Statistics: Processing Data From Statistical Reports* • Organizing and choosing certain tools to present data: • Highlighting some of the information that can be derived from a table or a graph (e.g. minimum value, maximum value, range, mean)	Calculating the median and mode are beyond Cycle One. Discuss the development of calculating the mean in Example 2 without a spreadsheet. Choose from Questions 3–4, 6a)–c), e), 10, 11, 12, 13a), 15, 16. For questions that direct students to calculate the median or the mode, direct students to calculate the mean only (if not already in the instructions).

Content	QEP Concepts	QEP Processes	Addressing Concepts and Processes
Lesson A: Interpreting Data: Range	*Statistics: Statistical Reports* • Table: characteristics, frequencies • Arithmetic mean • Range	*Statistics: Processing Data From Statistical Reports* • Organizing and choosing certain tools to present data: • Highlighting some of the information that can be derived from a table or a graph (e.g. minimum value, maximum value, range, mean)	New Lesson Student Resource Teacher Resource
Lesson B: Interpreting Data in Graphs and Tables	*Statistics: Statistical Reports* • Table: characteristics, frequencies • Reading graphs: bar graphs, broken-line graphs, circle graphs • Range	*Statistics: Processing Data From Statistical Reports* • Organizing and choosing certain tools to present data: • Highlighting some of the information that can be derived from a table or a graph (e.g. minimum value, maximum value, range, mean)	New Lesson Student Resource Teacher Resource
Math Game: Target Mean, p. 106	*Statistics: Statistical Reports* • Arithmetic mean		Optional
Curious Math: The Dvorak Keyboard, p. 107	*Statistics: Statistical Reports* • Table: characteristics, frequencies	*Statistics: Processing Data From Statistical Reports* • Organizing and choosing certain tools to present data: • Constructing tables	Optional
Lesson 7: Communicating about Graphs, pp. 108–110	*Statistics: Statistical Reports* • Reading graphs: bar graphs, broken-line graphs, circle graphs	*Statistics: Processing Data From Statistical Reports* • Organizing and choosing certain tools to present data: • Highlighting some of the information that can be derived from a table or a graph (e.g. minimum value, maximum value, range, mean)	
Chapter Self-Test: pp. 111–112			Self-Assessment Opportunity: Select from Questions 1, 2, 6b)–d), 7a) (mean only), 8.
Chapter Review: pp. 113–115			Assessment Opportunity Exclude the parts of the first Frequently Asked Question that deal with stem-and-leaf plots and all of the second Frequently Asked Question. Select from Questions 1, 2, 5, 6b)–c), 8 (mean only), 10b) (mean only), 11, 12.

Chapter Task: Planning a Playlist, p. 116	*Statistics: Statistical Reports*
	• Table: characteristics, frequencies
	• Reading graphs: bar graphs, broken-line graphs, circle graphs
		Statistics: Processing Data From Statistical Reports
		• Organizing and choosing certain tools to present data:
		  • Constructing tables
		  • Constructing graphs: bar graphs, broken-line graphs, circle graphs
			Assessment Opportunity: Exclude prompt E.

Chapters 1–3 Cumulative Review: pp. 117–118			Assessment Opportunity: Select from Questions 1–10, 13a) (mean only), b), d), e).