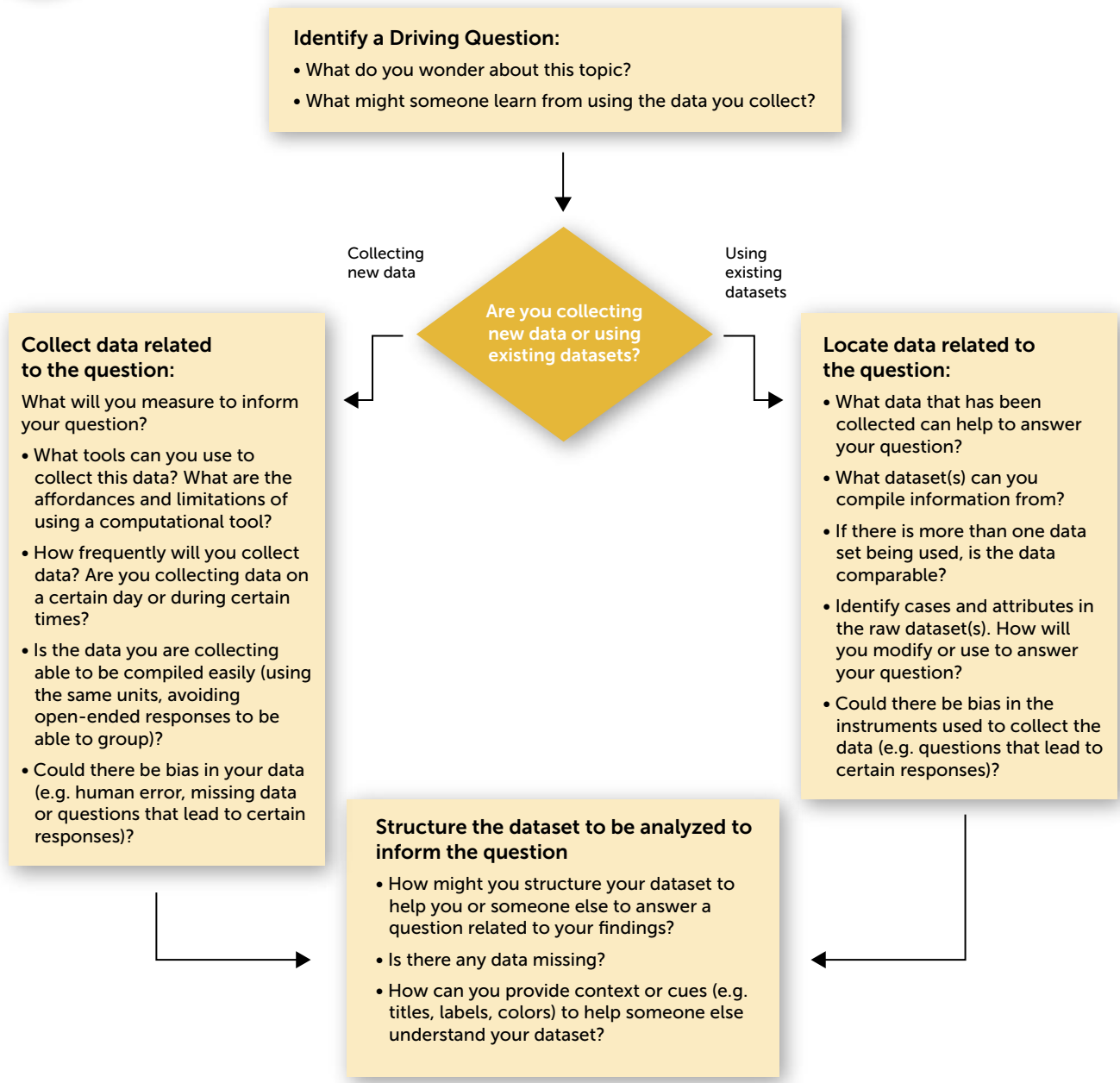


# Data Practices: Collecting, Analyzing and Evaluating Data

Use the flowchart below to **1) identify a driving question, 2) collect or locate data related to the question, and 3) structure the dataset to be analyzed to inform the question.**

## 1 Part 1: Collecting and Structuring Data to answer a driving question



## 2

## Part 2: Using Data Moves to Analyze Data

Use data moves (Erickson et al., 2019) to answer the questions about the dataset. Examples of data moves are:

- **Filtering** is selecting only a subset of the data that is available to explore. For example, you may view only a portion of the data because only some of it is relevant to the question you are exploring.
- **Grouping** is used to make comparisons between different subgroups of a data set.
- **Summarizing** is computing a value (e.g. mean, median, mode) to summarize a group.
- **Calculating** is creating a new attribute based on values of one or more existing attributes. For example, if an attribute is distance in kilometers, you may want to convert that value to distance in miles.
- **Merging/joining** is combining more than one dataset together. You may add more cases, or add more attributes to existing cases.
- **Making a hierarchy** is grouping data using multiple levels.

In order to complete data moves, you should become familiar with a program that allows you to manipulate data. Google Sheets, Microsoft Excel, CODAP (Concord Consortium) are all great resources for using data moves to analyze your data.

### Question:

<b>Data Move(s)</b> Dive deeper into the data set by combining moves	<b>Sketch or describe how you organized or illustrated the data:</b>	<b>What does this tell you about the relationships/patterns within your dataset?</b>	<b>What new questions do you have?</b>

# 3

## Part 3: Evaluating Data

Explore the sources that reported the data. Use the flowchart below to consider error and/or bias that could be present.

