How to Construct a Data Table

When you do an investigation, you often collect information. The information you collect is called *data.* Data can be measurements, numbers, observations, dates, or times. Data is the plural form of the word *datum.* For this reason, it is correct to say the "data are" collected rather than the "data is" collected.

It is helpful to use some method to organize the data you collect. One way to do this is to create a data table. A data table is a chart that will allow you to keep track of your data. You can then use the data to make decisions, predictions, or graphs. You have probably seen a data table before, but you may not have constructed one on your own. Follow the steps below to create a data table.

Steps for Creating a Data Table

1. ***Know which data to collect.*** To do this, read through or plan your investigation before you get started. Ask yourself, "What am I investigating? What question am I trying to answer?" Make a list of the information you will need as you are reading and planning.
2. ***Collect enough information.*** Once you have read the investigation, you should know its purpose. You also should have a list of the information you will need. Review the purpose and your list to make sure the information you collect will answer the question you are investigating.
3. ***Create your table.*** Make one column for each item on your list. Label the columns as you create them. If you are investigating how high a rocket travels when it has different body lengths, you might create columns like those in figure 1. Do not put the bottom line on your table until you have all of the results.

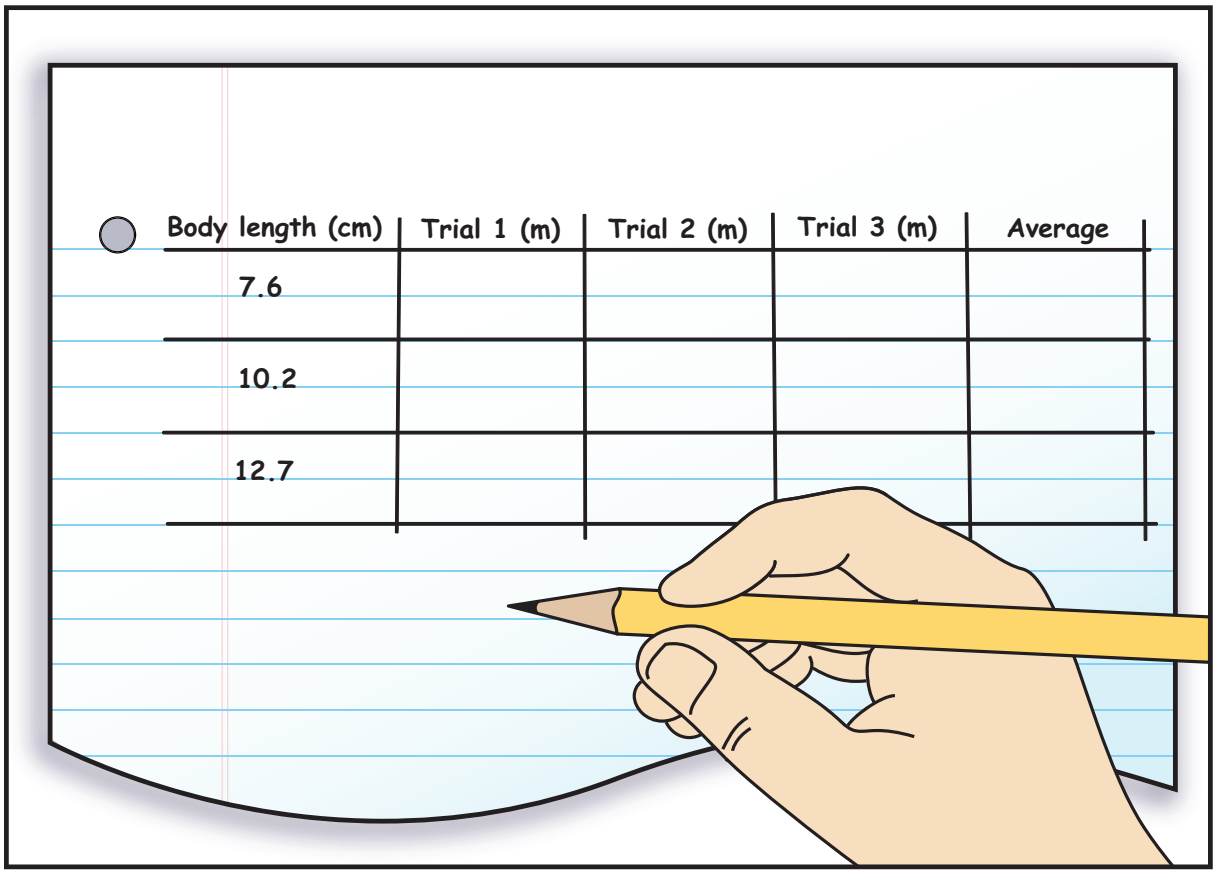

Figure 1: Starting a data table. If you are investigating how high a rocket travels when it has different body lengths, you might create columns like this.

4. ***Give your data table a title.*** Use a different title for each data table you create. A title makes it easy to refer to a specific table.
5. ***Fill in your data table.*** As you do your investigation, fill in your data table as shown in figure 2. If you write your observations and results as soon as you complete a test, you do not have to worry about remembering what you did and what happened. If you wait until you have finished all the tests to record your observations, you may not remember what you did in the test and what happened, and your data may be inaccurate. It is difficult to draw good conclusions from inaccurate data. It is not important to create a perfect table on the first try. You will become better at creating data tables with each attempt.

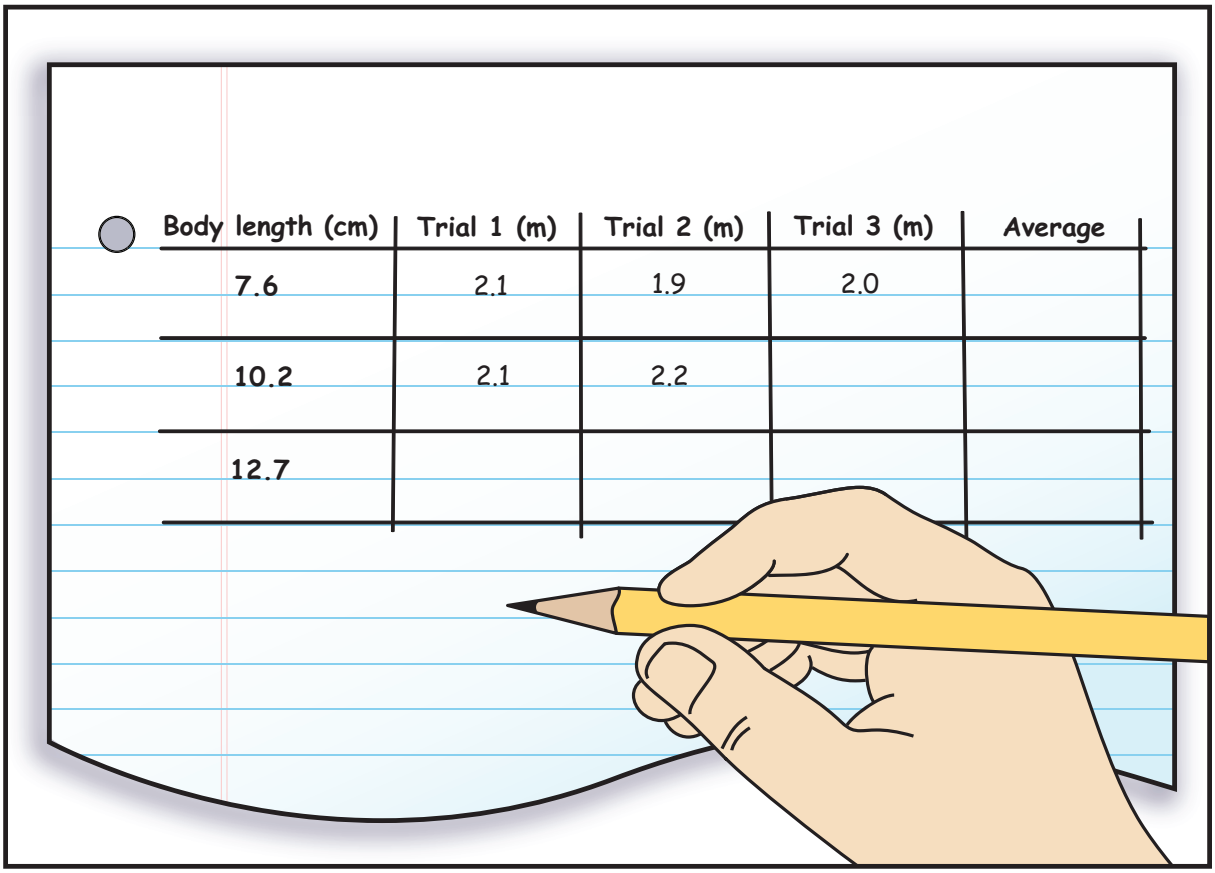

Figure 2: Completing a data table. Fill out the data table as you complete your investigation. Do not wait until you have finished the investigation, because you might not remember the results or what you did.

6. ***Make sense of your data.*** You should be able to use the information in your data table to answer the question in your investigation. If you are unable to do this, then either you did not organize your data or you forgot to collect and record some important information.