A **data table** is an organized arrangement of information in labeled rows and columns. Data tables are helpful in many kinds of situations. In science, they are particularly useful when you record observations during an investigation. Making data tables may also help you interpret information that someone else has collected.

When you create a data table, start by identifying the manipulated and responding variables. For example, suppose you are comparing two types of fertilizer to see whether one of them makes plants grow taller. Your manipulated variable is the type of fertilizer. Your responding variable is the height of the plants. You decide you will measure the height of the plants once a day for a period of three weeks. You also decide to include a control, a plant that receives no fertilizer. You might make a table like the one below.

Effect of Fertilizer on Plant Growth

Height of plants (cm)

Time (weeks)	Control Plant (no fertilizer)	Fertilizer A	Fertilizer B
1	4.5	4.6	4.4
2	5	5.2	5.3
3	5.3	5.6	6.5
4	5.4	5.9	8.2

How does the non-fertilized plants compare to the fertilized ones?

How does Fertilizer A compare to Fertilizer B?

Locations in the Schoolyard

	1	2	3	4	5
Ground cover	Grass and other plants	Asphalt	Gravel	Trees and grass	Asphalt
Sun/shade	Sun	Shade	Sun	Shade	Sun
Average temperature	25.5 C	28.9 C	38.6 C	22.4 C	39.2 C

Which ground cover produces the coldest temperature?

What unit is the temperature measured in?

Number of Guppy Movements

Container	Temperature (°C)	Number of movements
Aquarium water	38	56
A	40	61
B	42	70
C	36	46
D	34	42

Which container of water produces the highest number of Guppy movements?

At which temperature do the Guppies swim the fastest?