

MATH IN SCIENCE

Using Math in Science

Whenever you are conducting a science experiment or investigation, in Science, Math will most always be involved. Whether you are measuring, calculating, creating graphs and charts, or using numbers in any way...that's using your math skills.

Where Do You Use Math in a Science Investigation?

When you are measuring:

- During many science investigations you may have to measure the **length, width, height, or weight** of different objects.
- You may need to compare measurements of different objects, use such measurements to justify a hypothesis, or use the measurements to help you figure out other various scientific problems.

- You also measure the volume of different liquids when you are conducting an investigation.

All this measuring is done using math skills.



PREVIEW

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When you are calculating:

There are many times during an investigation that you will need to add, subtract, multiply and divide in order to solve a scientific problem or to help justify your hypothesis.

ADDING...

You might be figuring out how many centimeters your plant has grown in one month.

Weekly NEW Growth in Plant Height of Plants Measured Weekly

	week 1	week 2	week 3	week 4
Plant A	2 cm	4 cm	5 cm	7 cm

To solve this problem, you would add $2\text{ cm} + 4\text{ cm} + 5\text{ cm} + 7\text{ cm} = 18\text{ cm}$

SUBTRACTING...

You may need to find out a difference in temperature. At Sherman Elementary School it was 26° C at 11:00 AM in the morning but dropped down to 20° C by 2:00 PM in the afternoon. How much did the temperature **decrease** from 11:00 AM to 2:00 PM?

Temperature Outside			
8:00 a.m.	10:00 a.m.	12:00 p.m.	2:00 p.m.
20°C	23°C	29°C	31°C

To solve this problem, you would subtract $26^{\circ}\text{C} - 20^{\circ}\text{C} = 6^{\circ}\text{C}$

MULTIPLYING...

You could be
Your heart be
your heart be

To figure this

DIVIDING...

You may need to also divide when dealing with science.

Let's say there were 20 oak trees growing in the forest before construction began. One quarter ($\frac{1}{4}$) of them were cut down during the building of the new road. How many trees were cut down during the building of the new road?

$\frac{1}{4}$ of 20 = $20 \div 4 = 5$ (so 5 trees were cut down during construction)

Creating graphs and charts during your science investigations involves Math too! Graphs and charts help organize your information so that you can clearly show your data results which will help you justify your hypothesis!



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