

Graph this!!!

The ins and outs of graphing

Graph this!

A student wanted to test the relationship between caffeine and the time it takes a spider to build a web. She gave different amounts of caffeine to wolf spiders in tanks by dissolving caffeine into water and allowing the spiders to drink it. She then timed how long it took the spider to complete their webs

mg of caffeine	Time to make web
0	12 min.
10	10 min.
20	9 min.
30	8 min.
40	6 min.

mg of sugar	Time to make web
0	10 min.
10	11 min.
20	9 min.
30	11 min.
40	7 min.

Line Graphs

- Used to show trends in continuous functions → can make estimations between measured points or *interpolate*.
- (Bar graphs are for comparing different categories.)

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How to make a line graph

1. Determine and label axes (x and y)

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Independent variable
↓
Experimental variable
↓
Caffeine/sugar

Dependant variable
↓
Results
↓
Time to make web

- Determine scale → use as much of the graph paper as possible.

Data range/available lines

40 mg of caffeine/20 lines on graph = 2 mgs per line

- Plot points and connect the dots
- Label lines or make a “key”.
- Make a title for graph
“The relationship between _____ and _____.”
x axis y axis

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