You may be wondering ...
What does Mo want when she asks for an observation?
Why does one observation ask for “math” and another ask for “percent?”
And how is a conclusion different?

First, you may use any type of “math” in your observations, but these are recommendations if you’re stuck on figuring out what is interesting or relevant. Ultimately, it’s whatever you SEE ... which is the whole point of putting it into a graph in the first place. And since this is math class, well, it just seems like you should want to observe the math part first, eh?

Observations with Histograms: When looking at a graph, what do you notice? Ignore the data you collected and just LOOK at the graph Then use math to make your observation clear to whomever is reading your observation.
A few good topics to observe: range, outliers, modes
Examples: *I noticed that twice as many people liked cats than dogs.*
Only one person in the entire survey chose basketball as their favorite sport.
When looking at the average amount of cookies per box, there was a range of 15 cookies in the X brand of cookies, but only a range of 4 in the boxes of the Y brand.

Observations with Box Plots: Same as above, but speak in terms of percents. When you see a box plot, you ALWAYS now where each 25% of the data lies, but you may not know how many people were surveyed (without the actual data). You also KNOW the high & low extremes.
A few good topics to observe: the median, any outliers, range, small boxes or whiskers that signify SMALL ranges (and vice versa) and then tie it into the percentages.
Examples: *25% of the people who owned dogs had dogs that weighed less than 5 pounds.*
There was an outlier of 115 degrees recorded for the month of June.
In a box of X brand cookies, 50% of them contained at between 40 and 42 cookies.
The median number of cookies in brand X was 6 cookies more than in brand Y.

Conclusions: State the obvious: what does the graph show you? Or what do you notice when you compare graphs? When you show this graph to Ella, what obvious thing will you show her?
Examples: *More people like dogs better than lizards.*
It usually rains more in January than in July.
The smallest number of cookies in a box of brand X was still more than the greatest number of cookies in a box of brand Y.