Graphs

This week we will explore graphs and functions. Dot plots and stem-and-leaf plots are new concepts for 4th graders when representing data. We will also collect and interpret data by using frequency tables. Function tables and frequency tables should be a review for 4th grade.
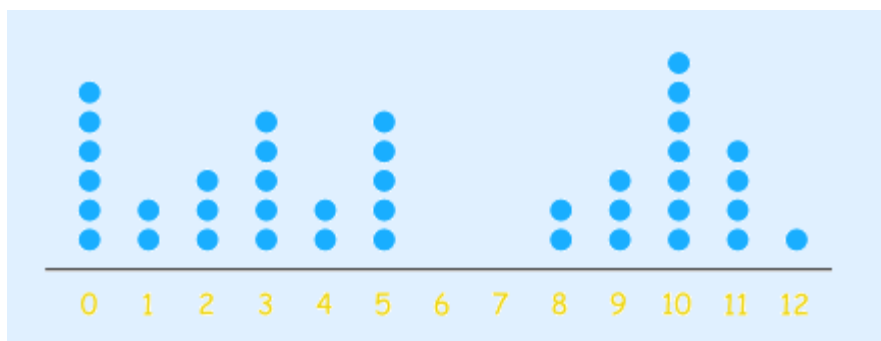
A **frequency table** is a table that lists items and uses tally marks to record and show the number of times they occur.

Favorite Food	Tally	Frequency
Taco |卌 ||	7
Burger	卌 ||||	9

A **Dot Plot** is a graphical display of data using dots.

A survey of "How long does it take you to eat breakfast?" has these results:

Minutes:	0	1	2	3	4	5	6	7	8	9	10	11	12
People:	6	2	3	5	2	5	0	0	2	3	7	4	1

stem-and-leaf plot A display of data in which digits with larger place values are "stems" and digits with smaller place values are "leaves."
Data list: 24, 24, 25, 26, 27, 27, 28, 31, 31, 32, 32, 36, 36, 36, 41, 41, 43, 45, 48, 50, 52

Stem-and-leaf plot

Stems (10s)	Leaves (1s)
2	4 4 5 6 7 7 8
3	1 1 2 2 6 6 6
4	1 1 3 5 8
5	0 2

With functions (AKA input/output tables), we will identify their rule as well as their missing parts. Rules will be written simply (x2) and algebraically (x = y÷ 2; see more examples below).

Input (x)	Output (y)	Rule:
5	10	x2,
12	24	double,
6	12	input x 2 = output,
3	6	Input= output ÷ 2,
4	8	X x 2 = y
1	2	X = y÷ 2

Input (s)	Output (t)	Rule:
3	13	+ 10,
	22	Input + 10= output,
6	16	Output – 10= input,
3		S + 10 = t
	14	T – 10 = s
1	11	