Learning Objective:	Discrete Grouped Data	**Name:**	
		Date:	

Do NOW Activity:

1. Find the **nth term** 12, 14, 16, 18
2. **Simplify** the ratio 15 : 27
3. **Work out** 5 × £4.55
4. Work out the **mean** 3, 12, 7, 12, 11
5. Complete the **equivalent fraction** $\frac{2}{3} = \frac{?}{15}$

PRIOR KNOWLEDGE CHECK:

1. I can find multiples and factors

THE MAIN EVENT

WORKED EXAMPLE #1:

The data below shows the mass of 40 students in a class. The measurement is to the nearest kg.

55	70	57	73	55	59	64	72
60	48	58	54	69	51	63	78
75	64	65	57	71	78	76	62
49	66	62	76	61	63	63	76
52	76	71	61	53	56	67	71

We could choose intervals of 5.
We then begin the scale with 45 and end with 79

Mass (kg)	Frequency
45 – 49	2
50 – 54	4
55 – 59	7
60 – 64	10
65 – 69	4
70 – 74	6
75 – 79	7

PRACTICE #1:

1. Here are the colours of 40 cars in the Abbey school car park:

Red	red	blue	green	white	red
Blue	red	red	blue	white	green
Red	white	white	blue	red	white
Blue	blue	green	black	white	blue
Red	silver	silver	blue	red	red
Silver	white	white	red	blue	green
Red	blue	silver	white		

(i) Copy and complete the tally chart below:

Colour of Car	Tally	Frequency
Red		
Blue		
Green		
White		
Silver		
Black		

(ii) What is the most popular colour?

(iii) Which colour represents 25% of the total?

2. The ages in years, of 40 people, are shown below.

43	24	33	26	35	15	27	34	19	20
42	49	34	56	37	19	21	50	39	29
54	57	30	28	26	18	20	34	3	33
9	101	27	12	47	11	7	25	37	

Copy and complete the grouped tally chart for the given data.

Age (years)	Tally	Frequency
0-9		
10-19		
20-29		
30-39		
40-49		
50-59		

(i) What is the width of each class interval?

(ii) How many people are less than 20 years old?

(iii) How many people are 40 years of age or older?

3. The number of birds in a garden are recorded at the same time each day over a 50-day period. These numbers are given below.

4	24	11	24	3	7	8	12	23	14
22	15	5	6	7	8	11	3	8	25
3	7	5	7	17	9	1	13	7	12
1	2	8	18	13	12	3	6	6	9
17	15	11	9	8	17	7	14	16	4

Construct a tally chart using groups of 1-5, 6-10, 11-15, 16-20, 21-25.

4. The staff in a shoe shop keep a record of the sizes of all the shoes they sell in one day. These are listed below:

8	7	6	6	8	7	5	4	3	1
1	1	7	8	9	5	6	6	5	6
3	10	8	9	7	6	6	5	4	2
6	9	11	3	5	6	7	8	8	3
4	6	7	8	9	8	8	7	6	4

(i) Draw a grouped frequency table using appropriate class intervals.

(ii) What is the width of each class interval?

(iii) How many people have a shoe size less than 5?

(iii) How many people are have a shoe size of 6 or more?

5. Graham uses his calculator to generate random numbers. He decides to investigate if the numbers are really random. Using his calculator, he produces the following numbers:

9	9	1	5	4	7	0	3	9	2
7	9	2	3	0	9	1	0	5	8
9	2	2	1	0	7	0	4	3	9
0	8	6	2	9	7	3	2	9	9
7	8	3	6	8	9	5	0	4	7
9	6	5	9	1	2	4	7	8	4
3	6	9	7	9	0	1	4	3	7

(i) Draw a grouped frequency table using appropriate class intervals.

(ii) What is the width of each class interval?

(iii) what is the modal number?