**9 AIL Targeted Teaching Mathematics - Takeaway**

**Box and Whisker Plots**

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Advisory \_\_\_\_\_\_ TT Teacher\_\_\_\_\_\_\_\_

**T2 Teaching Focus**

***Box and Whisker plots*** are a visual representation of the ***descriptive statistics*** of a data set.

The ***descriptive statistics*** include:

***Minimum value***

***Lower quartile (Q1)***

***Median(Q2)***

***Upper quartile (Q2)***

***Maximum value***

**T2 Teaching Example 1**

Draw a **box-and-whisker plot** for the following data set:

4.3,  5.1,  3.9,  4.5,  4.4,  4.9,  5.0,  4.7,  4.1,  4.6,  4.4,  4.3,  4.8,  4.4,  4.2,  4.5,  4.4

1) Order the set:

3.9,  4.1,  4.2,  4.3,  4.3,  4.4,  4.4,  4.4,  4.4,  4.5,  4.5,  4.6,  4.7,  4.8,  4.9,  5.0,  5.1

The **median** is = 4.4.

Q1 = (4.3 + 4.3)/2 = 4.3

The **median** of the second half is:

Q3 = (4.7 + 4.8)/2 = 4.75

|  |  |  |
| --- | --- | --- |
| 2) The values have one decimal place and range from 3.9 to 5.1. Draw a number line from 3.5 to 5.5, and mark off by tenths. |  | my number line |
| 3) Mark off the **minimum and maximum values**, and Q1, Q2, and Q3: |  | min, Q1, median, Q3, and max points marked off |
| 4) The "box" part of the plot goes from Q1 to Q3: |  | drawing the 'box' |
| 5) The "whiskers" are drawn to the endpoints: |  | drawing the 'whiskers' |

**Touch Base Task**

Draw a ***box and whisker plot*** for the following data:

11, 6, 7, 8, 13, 10, 8, 7, 5, 2, 9, 4, 4, 5, 8, 2, 3, 6

|  |  |
| --- | --- |
| Descriptive statistic | Value |
| Minimum |  |
| Lower quartile (Q1) |  |
| Median (Q2) |  |
| Upper Quartile (Q2) |  |
| Maximum |  |