



Median and Range

**Description:**

Calculating the Median and Range of a set of data.

Numeracy Strategy reference:

Find the median of a small set of discrete data.

Find the range of a small set of discrete data.

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Task analysis:

What the children must be able to do:

Read / interpret handouts / OHP and be able to complete tables.

Learning Objectives:

To understand that the range of a set of values is the difference between the largest and the smallest numbers in the set. Also the median of a set of numbers is the value of the middle number when they are arranged in ascending order. Note, if there is no single middle number, the mean of the two middle numbers is taken.

Suggested activities:**Oral work and mental calculation:**

Introduce the keywords – average, data and median. Use a whiteboard or OHP to show the following set of numbers.

2 5 8 3 1 7 6

Ask the class to put them in order, smallest to largest. Which number is in the middle? Discuss the maths word for this number. What is the difference between the largest and smallest number? Discuss the maths word for this.

Then try the following:

14 23 28 17 27
5 9 1 7 12

And here's a tricky one:

2 4 3 6 10 3

Explain that if there are two middle numbers, i.e. 4 and 6, the median is the mean of 4 and 6, therefore 5.

End with the following:

12 14 23 16 8 8
5 8 10 7 1 9

Teaching activity:

Pupils should find the median and range of the sets of numbers on the activity sheet and answer each of the questions.

Plenary / Extension Activities:

Recap upon difficulties encountered when having two middle numbers.
Challenge the pupils to find the median and range of 10 -3 0.5 7 0.25
and 7 -5 0 6 1 -2.

Resources:

Median and range activity sheet.

Learning outcomes:

Pupils will understand and be able to find the range of a set of numbers.
Pupils will be able to understand and find the median.

Extension activities:

Plenary / Extension Activities

Recap upon difficulties encountered when having two middle numbers.

Challenge the pupils to find the median and range of 10 -3 0.5 7 0.25 and
7 -5 0 6 1 -2.